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## Educating Elementary Students About Nutrition: An After-school Club Curriculum

Morgan Gurwell

*University of Nebraska - Lincoln*

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EDUCATING ELEMENTARY STUDENTS ABOUT NUTRITION:  
AN AFTER-SCHOOL CLUB CURRICULUM

An Undergraduate Honors Project  
Submitted in Partial fulfillment of  
University Honors Program Requirements  
University of Nebraska - Lincoln

by  
Morgan Gurwell, BS  
Child, Youth and Family Studies  
College of Education and Human Sciences

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Faculty Mentor:  
Linda Young, MS, Nutrition and Health Sciences

**Abstract:**

This creative project was created to serve as a 10-week afterschool club curriculum for 3rd-5th graders to teach them about nutrition and healthy eating patterns. The goal of the program is to help kids establish a foundation for healthy eating that they can utilize throughout their lives, potentially reducing their risk of developing chronic diseases as an adult. Information presented during the program is a representation of the key components of the USDA MyPlate and the 2020-2025 Dietary Guidelines for Americans. The curriculum aims to teach these concepts by breaking down the different food groups, reading nutrition facts labels, and evaluating sugar-sweetened beverages. The rationale portion of this project explains the models, theories, statistics, and research-based evidence that were used when crafting each lesson plan. Using the Whole School, Whole Community, Whole Child approach, the curriculum looks at how the health and academic performance of a student are intertwined and how nutrition education can help develop the whole child. Some plans were also developed around the exposure effect, meaning that students are exposed to new foods or to different nutrition facts labels that they might not have the opportunity to see or experience at home. Other plans incorporated the gamified repetition theory where students were repeatedly exposed to concepts by playing games to help them commit their new knowledge to memory. While there is no formal assessment, the activities themselves or the informal assessments listed at the end serve as tools to gauge the students' mastery of the topics.

**Keywords:** Afterschool club, nutrition, education, healthy, eating

**Introduction:**

The purpose of nutrition education in elementary schools is to equip children with skills to make healthy food choices and live a balanced lifestyle. Prior to formal schooling, children's food preferences and intake are solely influenced by their parents or caretakers. Nutrition education at school helps children understand how food fuels their bodies and gives them the opportunity to experience different foods that promote health. Maslow's Hierarchy of needs indicates that physiological demands are the most powerful and must be met before safety, belongingness, esteem, and self-actualization can be reached (Lester, 2013). This means that meeting nutritional requirements is essential for children's growth and development, and therefore, their success in the classroom, in extracurricular activities, and in social relationships. With childhood obesity on the rise, now more than ever is an important time to educate children on healthy eating patterns. Many schools, however, lack the resources, space, or time to incorporate these programs into their already demanding schedules (Schmitt et al., 2018). The following curriculum was created for a ten-week-long after-school club for 3rd graders through 5th graders to educate them on healthy eating through games, discussion, and reflection. The intended outcomes of the club are that students can identify the components of a balanced diet, understand how to read a nutrition label, and thus be able to make healthy choices. Overall, the development of this program is an example of how nutrition practices can be used to support the Whole School, Whole Community, Whole Child model to promote student health, wellbeing, and academic success.

**Increasing Need for Nutrition Education in Elementary School**

This curriculum is timely and of the utmost importance for children today because of the increase in childhood malnutrition and obesity. In 2017-2018, 19.3% (14.4 million) of children

and adolescents ages 2-19 were obese (Center for Disease Control [CDC], 2021). The USDA's Dietary Guidelines promote a healthy eating pattern that includes a variety of fruits and vegetables, whole grains, fat-free and low-fat dairy products, a variety of protein foods, and oils. However, a majority of children and adolescents don't follow the dietary guidelines ("Dietary Guidelines 2020-2025", 2020). In fact, a study found that 40% of the energy intake of 2-18-year-olds were empty calories with 433 kcal coming from solid fat and 365 kcal coming from added sugars. The main energy contributors were grain desserts, pizza, and sugar-sweetened beverages (Reedy & Krebs-Smith, 2010). This is concerning considering that the 2020-2025 Dietary Guidelines encourage that saturated fats and added sugars should each not make up more than 10% of daily energy intake. The goal of this program is to create a foundation for healthy eating that has the potential to contribute to lowering the risk of chronic diseases in adulthood.

Knowing this information, this curriculum was designed to promote a healthy eating pattern by eating a diverse range of foods recommended by the Dietary Guidelines and limiting solid fats and added sugars. This is done by diving deep into each of the food groups that make up the USDA MyPlate and how they all go together to create a balanced diet. A heavy component of the curriculum is learning how to read a nutrition facts label. This is discussed throughout multiple lessons to help students be aware of macronutrients, as well as added sugars and saturated fats, so they can be equipped with the skills to make healthy decisions on their own. The curriculum also focuses on the term "nutrient-dense" to teach students about choosing foods that are packed with nutrients but relatively low in calories. Overall, the goals of the material and activities are for children to understand the components of food to help them make educated choices about their diet and to have a positive relationship with food.

The intention of creating this curriculum for 3rd-5th graders is that it would be most impactful to educate children on nutrition at a younger age. It is believed that children do not consume adequate amounts of fruits and vegetables because they do not develop preferences for healthy food at a young age. A preference for healthy foods increases intake, therefore decreasing the risk of obesity (Schmitt et al., 2018). In addition to food preferences, it has been proven that when children understand the health benefits of nutritious foods, they are more likely to choose to eat these foods (Schmitt et al., 2018). If children can develop food preferences through taste tests and know the importance of nutrition at a young age through education, they will make healthier decisions over a longer period of their life, decreasing their risks of nutrition-related diseases, such as hypertension, heart disease, type 2 diabetes, osteoporosis, and dental cavities (“Dietary Guidelines 2020-2025”, 2020). The goal is that by teaching children about nutrition in a fun and simple way is that they are excited and equipped to establish a lifelong healthy lifestyle.

### **Whole School, Whole Community, Whole Child Approach**

The Association for Supervision and Curriculum Development (ASCD) and U.S. Centers for Disease Control and Prevention (CDC) created the Whole School, Whole Community, Whole Child (WSCC) model, which emphasizes the importance of linking the health and education sectors together (Rasberry et al., 2015). Previously, these sectors have worked independently, although their efforts are intended to benefit the same child. Aligning these sectors can help both sectors reach their goals because research shows that obtaining an education leads to better health outcomes and that being healthy leads to improved educational outcomes (Chiang et al., 2015). The integration of the education, public health, and school health sectors will encourage social, emotional, physical, and cognitive development of the whole child, as stated by the CDC

(“Whole School”, 2021). The following afterschool club curriculum is a part of the school health sector and aims to promote nutritious eating patterns that improve the development of the whole child.

The model has the child in the center to represent how the components of the surrounding circles are intended to solely benefit the child and that the child’s wellbeing is at the core of it all. Surrounding the child are the five “whole child” tenets: the child must be healthy, safe, engaged, supported, and challenged (Lewallen et al., 2015). These tenets are an application of Maslow’s Hierarchy of Needs, indicating that it is imperative that these five criteria be met before the child can succeed (Rasberry et al., 2015). Using the model as a framework for the curriculum, all lesson plans were designed to make sure every child experiences feeling healthy, safe, engaged, supported, and challenged during the after-school club.

Another key component of the WSCC model is that the school is an integral part of the community and that community businesses, agencies, and organizations impact the whole child. It emphasizes that children grow and develop in many settings like school, home, and in the community (Rasberry et al., 2015). To increase the effectiveness of a health education curriculum, they should be planned together with the community so that messages taught at school are relevant to the students and the community, and are also supported outside of the school (Lewallen et al., 2015). By keeping messages consistent in the classroom and in the community, ideas are reinforced to the children as being important. This will help them retain information beyond their time in the afterschool club. In addition, it is recommended that curricula developed using this model incorporate community resources to teach students (Morse & Allensworth, 2015). Not only does this benefit the student’s learning, but it also strengthens the community and fosters relationship building. This curriculum reflects this aspect of the

WSSC model by using locally-sold produce, doing activities with products from a local grocery store, and creating nutrition message posters to be hung up in community spaces.

The WSSC model also emphasizes the importance of equipping students with skills that allow them to feel good about the choices they are making in their own lives. Schools that utilize this model have found that it is essential for students to be able to articulate their own needs by being active contributors to their own learning and health (Morse & Allensworth, 2015). This is effectively done when students engage in learning experiences that help develop their skillset, and when educators lead students to discovery and assist them in making sense of what they are learning. It is important that the child feels like they truly have the power to learn and produce a change in their lives (Morse & Allensworth, 2015). The club curriculum attempts to do this by empowering students through knowledge and hands-on activities to give them the tools and attitude they need to make health-promoting decisions on their own. The WSSC framework also encourages children to become active participants in their health by giving them a voice regarding their health, their education, and their community. Effective ways of exercising this in the classroom are allowing students to practice their new skills through leadership responsibilities and peer education (Lewallen et al., 2015). The club curriculum highlights this through exercises where students must teach their peers a concept or create a project that displays their knowledge and present it to a group. Not only is it an evaluation to make sure students have mastered certain nutrition concepts, but it also gives them confidence in a new area of knowledge so that they can make healthy decisions in the future.

The purpose of utilizing the WSSC model as a framework for the afterschool club curriculum is to show how nutrition contributes to the success of the whole child. Evidence shows that children whose nutrition and fitness needs are adequately met achieve more in school.



Also, students that are academically skilled are less likely to engage in risky behaviors, and more likely to participate in healthy behaviors (Lewallen et al., 2015). Overall, the goal of the program is to teach children how eating healthy impacts more than just physical health, but social, cognitive, and emotional health as well.

### **The Exposure Effect**

A simple, yet significant, objective of this curriculum is to expose children to new foods, methods of food preparation, and knowledge about different foods. The exposure effect is a psychological theory that states that people develop a preference for things that they are familiar with. Many children are not exposed to healthy foods at home, and therefore do not prefer these foods to healthier options. Unfortunately, studies show that children's eating patterns and their knowledge about nutrition are the primary mechanisms for gaining weight (Schmitt et al., 2018). Many families lack healthier food options because they cannot afford them, do not have access to them, or lack the time to prepare them. Historically, ethnic and racial minority groups have not had extensive opportunities to promote their economic, physical, and emotional health, causing them to be disproportionately impacted by obesity. According to the CDC, 2018-2020 data shows that self-reported obesity was highest among non-Hispanic Black adults (40.7%), followed by Hispanic adults (35.2%), non-Hispanic White adults (30.3%), and non-Hispanic Asian adults (11.6%) (2022). Socioeconomic status also impacts obesity rates for 2-19-year-olds, occurring in 18.6% of children and adolescents in the lowest income group, followed by 19.9% in the middle-income group, and 10.9% in the highest economic group ("Childhood Obesity Facts", 2021). With statistics like these, it is crucial that all students from every background receive nutrition education and are exposed to healthy foods at school, especially because food preferences develop at a young age. Having preferences for fruits and vegetables has been shown

to increase a child's intake of these foods and decrease their risk for childhood obesity (Schmitt et al., 2018). While it is unrealistic to expect children to like every healthy food, exposing the foods to them is still an essential step in the process. One study showed that after teaching first graders about legumes and having them participate in a legume snack tasting over four weeks, they were more likely to choose a legume-based snack on their own (Edwards & Herman, 2011). The curriculum uses this information by incorporating food tastings into some of the lessons so that children have the chance to try something new and develop a palette for it. In addition, the lessons teach about the health benefits of different foods so that children understand the importance of them in their diet.

### **Use of Games with Space Repetition Theory**

Considering the young age group that this curriculum was developed for, games are used to teach many of the concepts to keep children engaged, but also to enhance learning. Incorporating games into nutrition education programs have been shown to increase knowledge, lead to behavioral change, and increase positive attitudes toward healthy eating (Fam et al., 2021). The learning process becomes more enjoyable and motivational and requires children to make decisions and take responsibility. One intervention consisted of card games, sorting baskets of food into food groups, and improv role-play situations, resulting in a statistically significant difference in pre-and post-education knowledge, as well as a transformation in healthy eating behavior (Uzşen & Başbakkal, 2019). Another intervention consisted of a nutrition board game where children had significant improvement in nutrition knowledge, eating behavior, and long-term weight loss compared to the children who did not play the game (Fam et al., 2021). These ideas were incorporated into the after-school club curriculum by accompanying an informational lesson with an interactive activity. The games use foods, brands, and stores that the

children see daily or are in the community to make the games more realistic. By putting into practice what the children are learning with hands-on experience, they are hopefully more likely to exercise that skill in real-world situations.

For a longer-term impact, pairing gamification with spaced repetition has proven to be effective. The Spaced Repetition Theory enforces breaks in between multiple exposures to a new concept. This causes children to recall a past concept, which improves learning and commits the idea to memory. One intervention of 15-25 minute sessions over one month supported that recurrent exposure to a concept increased the learning of fundamental nutrition facts (Fam et al., 2021). This is why lesson plans in the curriculum are only designed to last around 30 minutes, with some of that time dedicated to peer interaction through icebreaker questions. The lessons are meant to be short, simple, and easy to apply to the complementary activity so that children stay attentive and are only held responsible for remembering the key concepts. As a part of the icebreaker at the beginning of each lesson, there is a question about the material from the previous session to help students recall the information, as emphasized by the Spaced Repetition Theory. Keeping this principle in mind, each lesson is designed to build off all of the previous ones. For example, the MyPlate lesson plan precedes the lessons on individual food groups so that students understand how all the food groups work together to create a balanced diet. The goal of incorporating concepts from previous lessons in a different way is that children will not only understand the concept better but also retain and recall it in future situations.

## **Conclusion**

The purpose of the club is to educate elementary school students about nutrition and how to establish a healthy and balanced lifestyle. The curriculum is developed based on the Whole Child, Whole School, and Whole Community model where the child is the focal point and

educators are focused on both the health and academic achievement of the child. Games and spaced repeated exposure are used to help the children understand the concepts and retain the information. By the end of the ten-week club, students should have a better understanding of how different foods affect their bodies and how to make healthy choices based on their knowledge of nutrition.

## WEEK 1: MyPlate

Length of Activity: 30 min

*Description of Lesson Plan:* This lesson plan is an overview of the USDA MyPlate. Students will learn about the different food groups and why they are all important in a balanced diet. In the end, students will see the MyPlate diagram filled out with numerous examples of foods that fit into each group.

### *Learning Objectives:*

By the end of the activity, students should be able to...

- Identify the food groups: fruits, vegetables, protein, grains, dairy, “other”
- Be able to sort foods into the correct food groups
- Understand the importance of consuming all food groups

### *Materials:*

- Projector/whiteboard OR a large piece of paper with MyPlate diagram on it (see Appendix)
- Paper cut-outs of foods from different groups (see Appendix)
  - Magnet or tape on the back
- Bucket or bowl to put the paper foods in

### *Ice-breaker:*

- All students answer: What is your favorite food?

### *Points to Make Before Activity*

- MyPlate is a framework for eating a balanced meal with all of the food groups
- Eating a variety of foods from all of the food groups ensures that you are getting enough of the right nutrients
- You need more of some food groups than others
- Provide examples of fruits, vegetables, protein, grains, dairy, “other”

### *Directions for Activity:*

1. Project MyPlate diagram on the whiteboard or hang up a large piece of paper with the MyPlate diagram at the front of the room
2. Allow students one-at-a-time to draw a random food from the bucket and stick it on the board/paper in the right category
3. Continue until all foods have been placed on board/paper
4. Go through the food groups one by one and ask students to identify the foods they see

### *Informal Assessment:*

- The activity in this lesson plan serves as an informal assessment tool. Students should be able to sort the foods into the proper groups if they have mastered the material. If a student places a food in the wrong group, it is the instructor's job to interject and ask why the student picked that food group and then help guide them to the right answer.

## **WEEK 2: Fruits and Vegetables**

Length of Activity: 30 min

*Description of Lesson Plan:* This lesson plan aims to break down the MyPlate food groups into more detail. Students learn about nutrients in fruits and vegetables, how much they should have every day, and to choose whole fruits and vegetables as much as possible. The activity gives students the opportunity to try unique fruits and vegetables that they might not have tried before.

### *Learning Objectives:*

By the end of the activity, students should be able to...

- Know how many servings of fruits and vegetables are required each day
- Know the important nutrients in fruits and vegetables
- Be open to trying new fruits and vegetables

### *Materials:*

- Brown paper bags
- 2-3 fruits (2 of every kind)
- 2-3 vegetables (2 of every kind)

\*NOTE: In this activity, it can be fun to expose kids to unique fruits and vegetables that they might not see every day (star fruit, passion fruit, radishes)

### *Ice-breaker:*

- All students answer: If you had a garden, which fruits and vegetables would you grow?

### *Review from last week: Think-Pair-Share*

- What are the 5 food groups featured on MyPlate?

### *Points to Make Before Activity*

- Children between 9 and 13 need 1.5 - 2 cups of fruit per day
- Boys between 9 and 13 need 2-3.5 cups per day; girls between 9 and 13 need 1.5-3 cups
- It's best to eat whole fruits and vegetables! This means that eating the fruit itself is a better option than juices or snacks with fruits in them (like fruit snacks) because there are no added sugars.
- Fruits and vegetables contain Vitamin C, Vitamin A, potassium, folate, and fiber. These nutrients keep your body functioning properly and help prevent you from getting sick!

*Directions for Activity:*

1. Before students arrive, cut up one of each of the fruits and vegetables into bite-size pieces.
2. Place the other fruits and vegetables in brown paper bags. Have students (without looking) feel inside a bag and write down words to describe what they are touching. Have each student write down a guess of what they think it is.
3. Next, have the students close their eyes as they taste test the fruit or vegetable they just felt in the bag. Have them write down words to describe the taste. Students can change their guess if they'd like.
4. Have students share what they felt, tasted, and what their guesses were, and then reveal what was in the bag.
5. Repeat until you are all out of fruits and vegetables.

*Informal Assessment:*

- 4 question Kahoot before they leave:
  - How many cups of fruit do boys and girls need every day?
  - How many cups of vegetables do boys and girls need every day?
  - What's the best way to consume fruits and vegetables? (whole foods)
  - Which nutrient is NOT found in fruits and vegetables?
    - Give each student a colored card to match the color answer choices on the Kahoot. Have the students raise the card correlating with the color answer choice they believe to be correct.

*Notes:*

Think-Pair-Share is an activity to review from last week and start off this week's lesson. According to Spaced Repetition Theory, this activity should help students recall past information and store it in memory. Students will THINK of the answer to the question asked by the instructor, PAIR up with another student to discuss, and then one or two students will be asked to SHARE with the whole group.

**WEEK 3: Grains**

Length of Activity: 30 min

*Description of Lesson Plan:* The purpose of this week's lesson is to teach students about grains, and specifically, how to identify whole grains. Students should also understand that grains provide fuel for their bodies, represented by the Whole Grain Train activity. It is encouraged to use brands from a local grocery store so that students recognize them when they are in real-world situations.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Know what is considered a grain
- Know the important nutrients in grains
- Know what whole grains are and how much to have per day

*Materials:*

- A variety of whole grain and refined grain products (equal parts of each) from a local grocery store
  - Make sure there is enough for each student
  - All grains should have less than 5 grams of added sugar

*Ice-breaker:*

- All students answer: What's your favorite shape of pasta?

*Review from last week: Think-Pair-Share*

- What's the healthiest way to consume fruit? A slice of fruit, a cup of fruit juice, or a pouch of fruit snacks?

*Points to Make Before Activity*

- Grains give us energy! They include things like pasta, bread, cereal, oats, popcorn, tortillas, and rice.
- Half of the grains you consume every day should be whole grains.
  - How do you know if something is a whole grain? The first ingredient on the ingredient list is a "whole grain" like "whole wheat". They should have at least 3 grams of fiber.
  - Whole grains include every part of the grain kernel and contain all of the vitamins and minerals of the grain; They are rich in iron, fiber, and many B vitamins.

*Directions for Activity:*

1. Choose one student to be the conductor of the "Whole Grain Train". Explain that whole grains give the body energy to move just like trains need energy to move.
2. Distribute the grain products among the rest of the students. Tell students they need to examine the packaging of the product to determine if their grain is whole grain.
3. Explain to students that half of all grains should be whole grains, so they need to line up in a train behind the conductor alternating whole grains and refined grain.
  - a. For an extra challenge, don't let students use verbal communication
4. Have the conductor go down the train and double-check that everyone holding a product alternates between whole grain and refined grain.
5. Allow students to switch products and play again.



*Informal Assessment:*

- The activity in this lesson plan serves as an informal assessment tool. Students should be able to sort the foods into the proper groups if they have mastered the material. If a student places a food in the wrong group, it is first the conductor's job to catch the mistake. The instructor should then step in and ask why the student picked that food group and then help guide them to the right answer.

**WEEK 4: Protein**

Length of Activity: 30 min

*Description of Lesson Plan:* This week's activity is designed to understand the protein food group better. Students learn about a variety of protein sources and how proteins make the body strong and healthy. Protein is described as a "building block", which is why the activity uses Jenga blocks as an illustration.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Know what is considered a protein
- Understand that proteins build muscle and help maintain body functions
- Know how much protein to consume daily

*Materials:*

- Jenga building blocks with different proteins written on them
  - 1:1:1 ratio of meat/poultry protein to fish to plant protein

*Ice-breaker:*

- All students answer: If you could have any superpower, what would it be?

*Review from last week: Think-Pair-Share*

- How do you know if something is a whole grain?

*Points to Make Before Activity*

- Proteins can be meat, poultry, fish, and plant products (nuts, seeds, lentils, quinoa, tofu)
- Try to get protein from a variety of sources every week
  - Choose lean meat whenever possible
- Proteins help build strong muscles and help carry out normal body processes
- Girls need 4-6 oz of protein per day, boys need 5-6.5 oz per day

*Directions for Activity:*

1. Explain that proteins are the building blocks for muscles and enzymes - similarly, they are building a tall tower out of different protein sources
2. Students must put together a set of three blocks (one meat/poultry protein; one fish/seafood protein; one plant-based protein) before they can add them to the Jenga tower
3. Encourage students to build the tower as tall as possible. Explain that just like building the Jenga tower three blocks at a time makes it stronger, combining protein sources also makes the body stronger.

*Informal Assessment:*

- The activity in this lesson plan serves as an informal assessment tool. Students should be able to identify the different protein sources if they have mastered the material. If a student places a food in the wrong group, it is first the conductor's job to catch the mistake. The instructor should then step in and ask why the student picked that food group and then help guide them to the right answer.

### **WEEK 5: Dairy**

Length of Activity: 30 min

*Description of Lesson Plan:* This is the last lesson that breaks down a food group from MyPlate: the dairy group. Students will learn about different dairy sources, the health benefits, and recommended servings. The activity requires students to ask inquisitive questions to help them differentiate between different dairy sources. It is encouraged to use brands from a local grocery store so that students recognize them when they are in real-world situations.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Identify different dairy sources and how to choose low-fat/non-fat dairy options
- Understand the nutrients found in dairy products
- Know how much dairy to consume per day

*Materials:*

- Paper cut-outs of different dairy products

*Ice-breaker:*

- All students answer: What's your favorite flavor of ice cream?

*Review from last week: Think-Pair-Share*

- What are the three categories you can get protein from?

*Points to Make Before Activity*

- Both boys and girls should have 3 cups of dairy per day
- Dairy products contain many nutrients, but especially calcium and vitamin D which are essential for building strong bones
- Dairy products are things like milk, yogurt, cottage cheese, and cheese
- When possible, choose dairy products that are low-fat or non-fat

*Directions for Activity:*

1. Tape a paper dairy product on the back of each student without them seeing
2. Students must ask other students “yes” or “no” questions about the dairy product on their back to try and figure out what it is

*Informal Assessment:*

- Exit ticket: ask students to write down the main nutrient (calcium) in dairy and how many cups they should have per day (3) on a sticky note. Have them place their sticky note on the board before they leave.

**WEEK 6: Nutrition Facts Label (Part 1)**

Length of Activity: 30 min

*Description of Lesson Plan:* This lesson plan aims to teach students how to read a nutrition label and identify where key components are found. Part 1 is supposed to teach students how to interpret the label so that in part 2, they are able to compare different labels to each other.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Understand the key components of the nutrition facts label such as Serving size, Calories, Saturated fat, Added sugars, Sodium, Vitamins/Minerals
- Understand that the ingredients list is in order of the most prevalent ingredients

*Materials:*

- Projector/whiteboard OR a large piece of paper with nutrition facts label examples
- Popsicle sticks labeled with key terms: serving size, calories, saturated fat, added sugars, sodium, vitamins/minerals, ingredient lists
- Magnets (if projecting on the board) or stickers (if using a large piece of paper)

*Ice-breaker:*

- All students answer: What’s one food you’ve never tried, but would love to try?

*Review from last week: Think-Pair-Share*

- Why is dairy important for our body?

*Points to Make Before Activity*

- Calories: tells us the amount of energy you get from that food
- Serving size: tells us how much of that food makes up one serving
  - If you eat twice the serving size, you have to double the other numbers too
- Fat: Not all fat is bad! However, the less trans fat and saturated fat, the better
- Sodium: The lower, the better!
- Sugar: Not all sugar is bad! Naturally occurring sugars, like in fruits, are OK. Look for “added sugars” — these are the ones to minimize
- Below these facts are the vitamins and minerals present. They are shown as percentages - the higher percentage of a vitamin/mineral means there is more of it present in the food
- The ingredients list is at the very bottom. We looked at this during the grains lesson! This tells us the ingredients in the product. The very first ingredient is the ingredient that is in there the most and so on.

*Directions for Activity:*

1. Project an example nutrition facts label on the board or have it on a large piece of paper. Choose a snack food that kids are familiar with already.
2. Have one student at a time draw a popsicle stick. For example, if their popsicle stick says “Vitamins and Minerals”, they are in charge of identifying that part of the label.
3. Give the student a magnet (or sticker) to place on the board where they found their component. In the previous example, the student would place the magnet on the part of the label where vitamins and minerals are listed. If the student wants help from their peers, they can phone a friend from the crowd.
4. If the student thinks it’s a good source of something, they can add an extra magnet to that section. For example, if the product has a DV of 50% calcium, then they might award that section an extra magnet.
5. Once all the students have gone, discuss the areas of the label that the food is really strong in (areas that make it a healthy choice) and the areas that are lacking (areas that aren’t as healthful).

*Informal Assessment:*

Four corners: Ask students a review question (EX: What part of the nutrition label tells you what is in the food? The ingredients list). Give students different answer choices to choose from with each corner of the room representing a different answer. Say “go!” and have students move to the corner with the answer they believe is correct.

## WEEK 7: Nutrition Facts Label (Part 2)

Length of Activity: 30 min

*Description of Lesson Plan:* The goal of this plan is to help students decide on the healthiest option between multiple choices by utilizing their knowledge of the nutrition facts label. During the activity, it is helpful for students to look at nutrition labels of foods they are likely to recognize and see at a local grocery store.

### *Learning Objectives:*

By the end of the activity, students should be able to...

- Be able to make the best choice when presented with different nutrition facts labels

### *Materials:*

- Nutrition facts labels cut out from a variety of products
  - Cereals, crackers, chips, fruit snacks, popcorn, cookies, yogurt, cheese, granola bars, etc.
    - Make sure to have a “not as good”, “better”, and “best” option for each type of food

### *Ice-breaker:*

- All students answer: What is your favorite food combination?

### *Review from last week: Think-Pair-Share*

- What are some important components of a nutrition facts label?

### *Points to Make Before Activity*

- Nutrition fact labels give us a snapshot of what is in the food to help us make the healthiest choice.
- Look at the food as a whole and everything that makes it up. Foods aren't defined by just one thing!
- Weigh the benefits and costs of the food. Just because something is high in calories doesn't mean it's a bad choice. If it's packed with healthy fats and vitamins and minerals, but maybe it has a few added sugars, that's OK!
- Sometimes it's not feasible to make a perfectly healthy decision, but looking at nutrition facts labels can help you decide between a not-so-good option and a better option.
- What might be a better option for someone else may not be the best option for you. Everyone's needs are different and you know yourself best.

### *Directions for Activity:*

1. Allow students to be holding a nutrition facts label while going over the “points to make before activity” so they can follow along.
2. Set up stations around the room. Each station should have three nutrition labels for the same kind of food (ex: cereal) with a very clear not-so-good, better, and best option.
3. Have students rotate around the room to all of the stations, identifying which label they think is which for each station.
4. At the end, the instructor should go around to each station and have students voice their choices and explain their reasoning. The instructor should then identify the “best”, “better”, and “not as good” options by referencing the key components.

*Informal Assessment:*

- The activity in this lesson plan serves as an informal assessment tool. Students should be able to identify the “not as good”, “better”, and “best” products based on the nutrition labels if they have mastered the material. If a student misidentifies a label, the instructor should step in and ask why the student identified that label and then help guide them to the right answer.

**WEEK 8: Beverages**

Length of Activity: 30 min

*Description of Lesson Plan:* The goal of this lesson plan is to promote the consumption of water, as well as low-fat/non-fat milk, as the primary beverages in kids’ diets. It also encourages kids to look at the added sugar in a beverage before choosing what they want to drink.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Understand the importance of water and how much they should have every day
- Be aware of added sugars in juices and sodas

*Materials:*

- Ziploc bags
- Sugar
- Grams to teaspoon converter (on device)
- Measuring spoons
- Nutrition facts labels of fruit juice, sweet teas, sodas, chocolate milk, energy drinks, etc.

*Ice-breaker:*

- All students answer: What’s your favorite drink?

*Review from last week: Think-Pair-Share*

- Name at least three things you should look for on the nutrition facts label.

*Points to Make Before Activity*

- Water protects your joints and organs, helps blood circulate which delivers nutrients to your cells, and helps eliminate waste
- 4-8-year-olds need 5 cups of water per day; 9-13-year-olds need 7-8 cups per day
  - You may need more if in the heat or exercising!
- Water and low-fat or non-fat milk are the healthiest beverages to consume
- Look at the added sugars in other beverages - even fruit juices contain many added sugars. Remember that natural sugars are OK, but it's best to decrease added sugar intake!

*Directions for Activity:*

1. Create a standard plastic bag that shows the maximum amount of added sugar an individual should consume every day.
2. Hand out a beverage nutrition label, plastic bag, measuring spoon, and sugar to each student.
3. Students should use a grams-to-teaspoon converter on their device to convert grams of added sugar to teaspoons.
4. Students will then scoop the proper amount of sugar into the plastic bag.
5. Have each student stand and present their beverage and the amount of sugar it contains to the class. Have each student compare their plastic bag to the plastic bag that contains the total amount of added sugars someone can have in a day. Help students recognize which beverages contain the most added sugars.
6. At the end, start a discussion about ways to drink more water (or to make drinking water more fun) and take suggestions from the class. If they are stuck, suggest things like adding fun-shaped ice cubes or citrus fruits for flavor.

*Informal Assessment:*

- Students presenting their beverages and teaching their peers shows that they understand how much added sugar there is in most beverages. The group discussion at the end is also an evaluation of the students' knowledge on the importance of drinking water.

**WEEK 9: Create a Balanced Meal**

Length of Activity: 30 min

*Description of Lesson Plan:* This week's session is an application of the material learned in the past 8 weeks. Students will use their knowledge about MyPlate and how to make healthy choices to create their own MyPlate meal.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Create a healthy meal that incorporates all of the MyPlate food groups

*Materials:*

- Paper with place setting on it (see appendix)
- Crayons

*Ice-breaker:*

- All students answer: Do you like to cook or bake? If so, what's your specialty dish?

*Review from last week: Think-Pair-Share*

- What beverages should you drink the most of?

*Points to Make Before Activity*

- Have fun, be creative, and be ready to present to the group!

*Directions for Activity:*

1. Students have the freedom to choose whatever meal they would like, it just must incorporate all of the MyPlate food groups.
2. Students will color their foods on the paper place setting and label them.
3. Once everyone is done, they will present their meal to the group, explaining which food groups their foods fall into.

*Informal Assessment:*

- Students presenting their meals and explaining how they fit into the MyPlate framework shows that they understand the MyPlate food groups and can apply that knowledge to create their own meals.

**WEEK 10: Show What You Know!**

Length of Activity: 30 min

*Description of Lesson Plan:* The purpose of this week's meeting is to wrap up everything the students have learned into a final project to show off their new knowledge. Students get to pick a nutrition topic to create a poster over and present to their peers. To engage with the community, these posters will be hung up in public spaces for others to learn from.

*Learning Objectives:*

By the end of the activity, students should be able to...

- Educate others on a nutrition-related topic



*Materials:*

- Posterboard
- Markers
- Devices to do research (optional)

*Ice-breaker:*

- All students answer: 2 truths and 1 lie
  - Students say two true things about themselves and one false fact. The rest of the group will try to guess which one is false

*Review from last week: Think-Pair-Share*

- What were some of your favorite meals that your peers presented last week?

*Points to Make Before Activity*

- Have fun, be creative, and be ready to present to the group!

*Directions for Activity:*

1. Have students pick a nutrition topic they are interested in that has been discussed over the past nine weeks.
2. Encourage them to do additional research on their devices or ask questions if they have any.
3. Create a poster to be hung up in the community to educate others on the importance of their chosen topic.
4. Once everyone is finished, everyone will use their poster to teach the group about their topic. Two audience members should ask the presenter a question about their topic. After the club is finished, these posters will be hung up in community areas (grocery stores, libraries, etc.).

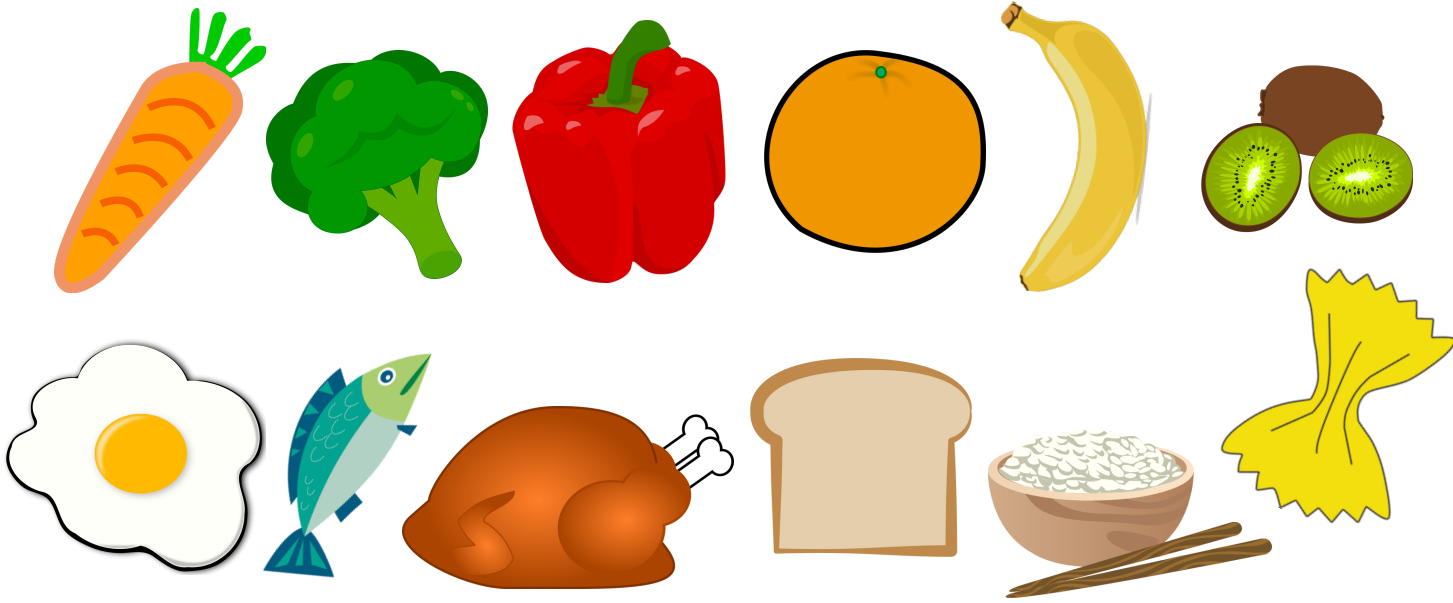
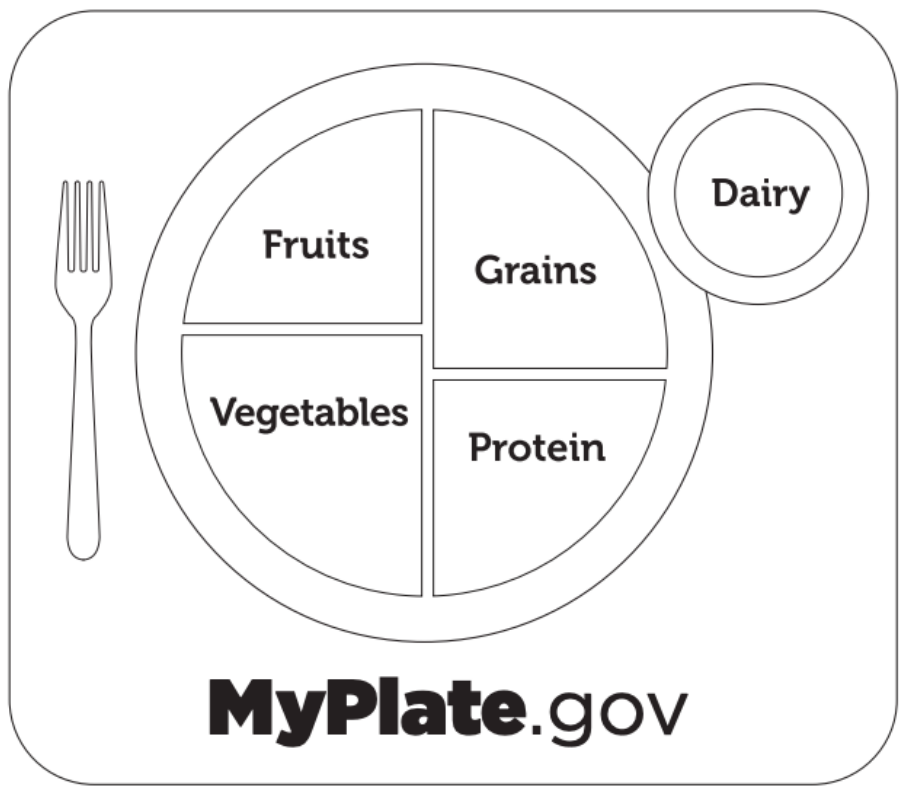
*Informal Assessment:*

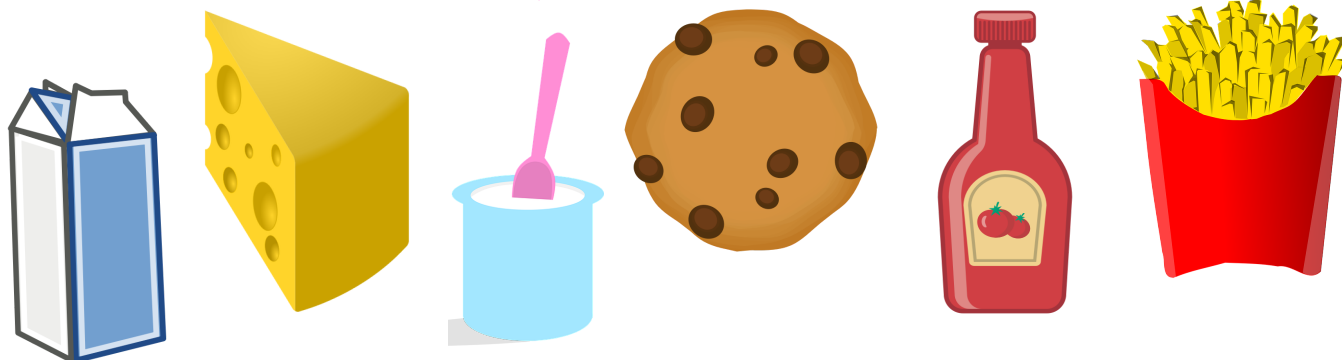
- Creating the poster itself shows that students have mastered a nutrition topic of their choosing. In addition to making the poster, students must teach their peers about the topic and answer questions, proving that they understand the topic.

**Appendix:**

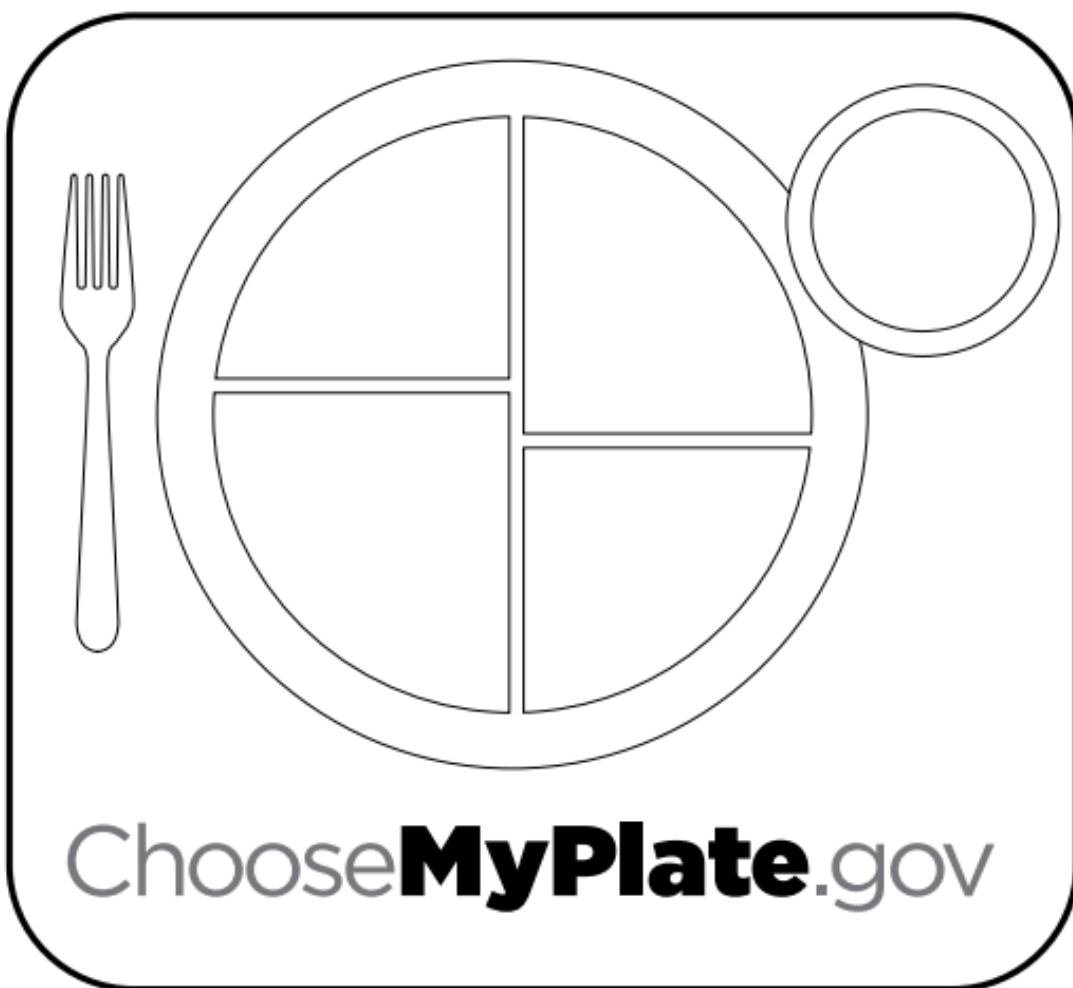
Use for lesson 1

From [USDA MyPlate's Printable Resources](#)





Use for lesson 9  
From [USDA MyPlate's Printable Resources](#)



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