

“Sometimes” foods: less healthy foods that should be considered a treat to enjoy occasionally. Focusing on completely avoiding foods that are bad for you can lead them to an unhealthy, guilt-based relationship with food. A healthier approach recognizes that some options are healthier than others, but, in moderation, all foods can be incorporated into a healthy lifestyle. This thinking discourages short-term weight loss and “fad” diets, instead favoring a long-term, healthy eating model that will keep students thinking about the balance of their diet rather than focusing on what they shouldn’t do.

Vitamin A: helps maintain healthy skin and teeth but is best known for promoting good vision and low-light vision. Carrots are well known for their high vitamin A content, but this vitamin can be found in many fruits and vegetables.

Vitamin C: helps repair tissues in all parts of the body; heals cuts and maintains skin, tendons, and blood vessels. Found in many fruits and vegetables but is especially high in citrus fruits like oranges, lemons, and limes.

Vitamin D: helps maintain healthy bones and muscles and supports an effective immune system. Vitamin D is often added to milk and other fortified products because it improves the body’s ability to use calcium. Vitamin D is found in some foods, but the body also has the ability to produce it when the skin is exposed to sunlight.

For more information on nutrients, explore the Nourish Interactive Online Vitamin and Mineral Tool at <http://www.nourishinteractive.com/nutrition-tools-healthy-family/parents-nutrient-vitamin-mineral-information>



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Fill MyPlate Game

Students can explore and review important concepts in nutrition with this fast-paced, multi-player board game. While this game is suitable for Grades 2–5, please note that younger students will likely need an explanation of nutrition concepts and vocabulary before playing the game. For younger grades, each group playing the game should contain a high-level reader. Terms can be found in the background information that follows. For additional resources and lesson plans, search the Utah Agriculture in the Classroom website using the keyword *nutrition*.



Background

MyPlate is the newest directive in nutrition education from the United States Department of Agriculture. The MyPlate icon is particularly helpful to young students because it uses the familiar and relatable image of a plate as a guide for visualizing the foods they should be eating. MyPlate illustrates five food groups—Grains, Fruits, Vegetables, Dairy, and Proteins. Each group has its own color and section on the plate.

Rather than focusing on numbers of servings like the formerly used pyramid models, MyPlate encourages people to think about how to balance their diets proportionately. The principles of healthy eating remain the same, and MyPlate places emphasis on making healthy choices with the “10 Tips Nutrition Education Series,” available online at <http://www.choosemyplate.gov/ten-tips>. The information on this page will be very helpful in understanding the questions in this game.

Game/ Kit Materials

- Fill MyPlate Game Board, 1 per group
- Fill MyPlate Q&A Cards, 1 set per group
- Die, 1 per group
- Game pieces, 1 per student
- Dessert-size paper plates, 1 per student

Nutrition terms and concepts used in this game

Calcium: an important nutrient for building and maintaining strong bones that is most readily found in dairy foods.

Calories: a measurement of the energy stored in foods. Calories come from the fat, carbohydrates, and proteins in food, and our bodies use them for energy and growth. When a person eats too many calories, the body stores them as fat. When the person eats too few calories, the fat reserves are used to supply energy to the body.

Learn more about the three macronutrients—fat, carbohydrates, and proteins—with the “Venn is Lunch” lesson plan, available online at agclassroom.org; search the Curriculum Matrix using the keyword *lunch*.

Carbohydrates: a source of energy for the body. They can be simple (like sugar) and complex (like starch). The most important thing to remember about carbohydrates is that they are rapidly converted to energy in the body, and if that energy is not used, it will be stored as fat. Fiber slows down the speed at which the body processes carbohydrates. Foods high in fiber provide a long-lasting supply of energy. That is why choosing whole foods like raw apples instead of juice and whole-wheat bread instead of white bread is so important.

Fat: a source of calories for the body. It is important to emphasize that, while foods that are high in added fat are often unhealthy, fat itself is actually a very important nutrient to the body. Discussing fat can be confusing, but rather than trying to define good and bad fats, students will be most helped by remembering to use moderation when eating foods high in added fat like fried foods and dessert. Also stress that low-fat options are available for dairy foods, and lean options are available for meat.

Fiber: the indigestible parts of food, most readily found in fruits, vegetables, and whole grains. Fiber is also known as *roughage*, and it has two very important functions: 1) It slows down the digestion of carbohydrates, releasing energy in a slow, steady stream instead of quickly raising the energy level only to have it drop again; 2) It keeps the digestive system healthy by helping move food through the digestive tract (in other words, it helps people poop).

Fortified: the addition of nutrients to food items; some commonly fortified foods include milk and orange juice, to which vitamin D is added.

Lactose intolerant: a person who can't digest cow's milk (or goat's milk or sheep's milk) is described as lactose intolerant. This person will have to choose other calcium-rich foods like soy milk, fortified orange juice, and dark, leafy greens like spinach to get the nutrients they need.

Processing: any method used to change a food from its original state. There are different levels of processing: raw, minimally processed, and highly processed.

Some foods are most nutritious when served raw, like apple slices and carrot sticks. However, not all foods can be eaten raw; in fact, some foods become more nutritious when cooked.

Minimally processed foods are foods that have only been altered a little bit and retain or even gain more nutrition when they are changed. Some examples would be cooked meat (becomes safer and easier to digest when cooked); frozen, reheated carrots (these do not lose many nutrients); and baked potatoes (potato starch must be cooked to be digestible).

Highly processed foods usually have added ingredients like salt, sugar, fat, and preservatives. Additionally, many items in this category have been heated to the point that many nutrients have been destroyed. Therefore, these foods tend to be high in calories and low in important nutrients. Foods like chicken nuggets, potato chips, and snack cakes are highly processed.

Recognizing and choosing foods from the raw and minimally processed categories will help students get the most nutrients per calorie (also known as *calorie density*).

For more information and lesson plans to help teach about food processing as it relates to nutrition, use the “Grocery Store Problem Solving” lesson plan, available online at agclassroom.org; search the National Agricultural Literacy Curriculum Matrix using the keyword *grocery*.

Proteins: these are the “building blocks” of the body. They are most often associated with animal foods like meat and eggs, but they can also be found in nuts, beans, and some other plant foods. Proteins give the body energy and provide it with the materials needed to grow and maintain cells.

Serving: in nutrition, a serving of food is a standard measurement that is used to give nutrition information on any given food. It is important to note that a nutritional serving size is not always the same size as the portion that you might put on your plate. People should pay attention to how much food they are serving themselves and try to remember to account for larger quantities of food when they are thinking about their calorie intake. For more information on serving sizes with fun, easy-to-visualize equivalents, visit the “Portions” section of the Nourish Interactive website at <http://www.nourishinteractive.com/nutrition-education-printables/category/67-portion-control-serving-size-worksheets-kids>

Fill MyPlate Instructions

Set up

Three to five players are needed for this game. Each player needs a paper plate and a game piece. Place the five types of Q&A cards in separate stacks, face-down next to the board.

Rules

- ❑ Roll the die to see who will go first. Whoever gets the highest number will begin, and the player to the right will go next.
- ❑ Take turns rolling the die and moving your game pieces around the board in any direction. Some squares have “bonuses,” which you can also use to move any direction.
- ❑ When you land on a ladder, you can choose to enter the food group into which the ladder leads. When you enter a food group, the person to your right should draw a card from the corresponding category and read it aloud (i.e., if you entered the Dairy Group, the person to your right will draw a Dairy Group card and read it aloud). If you answer correctly, you get to keep the card and add it to your plate in the location it belongs according to MyPlate. If you answer incorrectly, the card is returned to the bottom of the pile in its category. (*Note: Some cards contain extra information that the reading player should also read aloud after you have answered.*)
- ❑ After answering the food group question, remain in the food group until your next turn. On the next turn, you can roll and exit from any ladder connected to the food group you are in. Or, if you answered incorrectly, you can try to correctly answer a new question card, following the same procedures as before.
- ❑ Game play continues until one player successfully “fills their plate” by having one card from each food group represented on the paper plate.
- ❑ Repeat game play as many times as desired.