LESSON 1

A Date with MyPlate

Concept

Making healthy food choices is a critical part of living a healthier life. The US Department of Agriculture recently released MyPlate, which provides information about nutrition and physical activity to make it easier for people of all ages to make better choices. This lesson introduces MyPlate, with a focus on eating a variety of foods.

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Youth Understanding MyPlate

Background

Since the early 1980s the rate of childhood obesity in the United States has tripled (1–3). Children who are overweight or obese are at higher risk for weight-related problems such as type 2 diabetes (4), high blood pressure, high cholesterol (5), depression (4, 6) and problems with bones, joints (7) and breathing (8). In order to address this problem, there has been a focus on developing programs and policies that focus on obesity prevention. In fact, the two main concepts of the newly released Dietary Guidelines for Americans, 2010, are to 1) maintain calorie balance over time to achieve and sustain a healthy weight and 2) focus on consuming nutrient-dense foods and beverages (9). Implementing the key recommendations of the Dietary Guidelines for Americans, 2010, can help Americans make better choices and lead healthier lives.

DIETARY GUIDELINES FOR AMERICANS

One of the important jobs of nutrition educators is to translate federal guidelines into educational materials and programs that are easy to understand and meaningful to Americans. The Dietary Guidelines for Americans, 2010, (9) provide evidence-based nutrition and physical activity recommendations for healthy Americans and those at risk for chronic diseases ages two and older. The "Selected Messages for Consumers" from the Dietary Guidelines, 2010, published by the US Department of Agriculture include (10):

1. Balancing calories
   a. Enjoy your food but eat less.
   b. Avoid oversized portions.
2. Foods to increase
   a. Make half your plate fruits and vegetables.
   b. Make at least half your grains whole grains.
   c. Switch to fat-free or low-fat (1%) milk.
3. Foods to reduce
   a. Compare sodium in foods like soup, bread, and frozen meals and choose the foods with lower numbers.
   b. Drink water instead of sugary drinks.

MYPLATE

MyPlate is the US Department of Agriculture's newly released food guidance system based on the Dietary Guidelines for Americans, 2010, that uses printed materials and the ChooseMyPlate.gov website to provide Americans with information on the types and amounts of foods to eat every day (11). Americans can visit the ChooseMyPlate.gov website to get a personalized nutrition plan based on their age, sex, height, weight and activity level. The five food groups represented by the colors used on MyPlate include Grains – orange, Vegetables – green, Fruits – red, Dairy – blue, and Protein Foods – purple. Each of the food groups has a key message designed to help Americans make better choices, which include the following:

Grains – Make half your grains whole

Vegetables – Vary your veggies

Fruits – Focus on fruits

Dairy – Get your calcium-rich foods

Protein Foods – Go lean with protein

In summary, the Dietary Guidelines for Americans, 2010, and MyPlate were developed to help American families make better food and physical activity choices. Teaching young children about nutrition and providing specific recommendations in a fun activity is a first step in preventing obesity in children.

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2nd Grade Lesson

LEARNING OBJECTIVES

The students will:

- state the names and colors of the different food groups on MyPlate.
- identify foods from each of the food groups.

BEHAVIORAL OBJECTIVE

The students will:

- eat a variety of food from the different food groups.

RECOMMENDED BOOK

Spriggles Activity and Exercise by Jeff and Martha Gottlieb.

FLORIDA STANDARDS

HEALTH EDUCATION:

HE.1.C.1.1.: The student will identify healthy behaviors.

HE.1.B.3.2.: The student will identify healthy options to health-related issues or problems.

HE.1.P.1.1.: The student will demonstrate good personal health habits.

HE.2.C.1.1.: The student will describe personal health.

HE.2.B.1.3.L The student will apply listening skills that enhance health.

HE.2.B.4.1.: The student will establish a short-term personal health goal as a class and take action toward achieving the goal.

HE.2.P.1.1.: The student will demonstrate health behaviors to maintain or improve personal health.

READING/LANGUAGE ARTS:

LA.1.5.2.1.: The student will listen attentively and understand directions for performing tasks (e.g., multi-step oral directions), solving problems, and following rules.

LA.2.4.3.1.: The student will draw a picture and use simple text to explain why this item (food, pet, person) is important to them.

LA.2.5.1.1.: The student will demonstrate legible printing skills.

(continued on next page)

LA.2.5.2.4.: The student will listen politely to oral presentations by classmates.

VISUAL ARTS:

VA.1.S.1.3.: The student will create works of art to tell a personal story.

VA. 2.C.2.1.: The student will use appropriate decision-making skills to meet intended artistic objectives.

VA.2.O.2.1.: The student will use personal experience to convey meaning or purpose in creating artworks.

PHYSICAL EDUCATION:

PE.1.L.1.5.: The student will identify the health benefits of physical activity.

Learning Activity: MyPlate Picnic

PRIOR TO ACTIVITY

Count out enough blank sheets of paper for each student. Using orange, green, red, blue and purple markers, color a thick band across the top of each paper, alternating the colors. For example, the first sheet will have an orange band, the second sheet will have a green band, the third sheet will have a red band etc. Another option is to print a band across the top of a page using a color printer.

ACTIVITY INTRODUCTION

Today we are going to talk about making good food choices. Has anyone seen this poster before? Point to MyPlate poster. *This is the MyPlate poster. It was designed to help you make good food choices. What are the different colors on MyPlate?* Orange, green, red, blue and purple. *Each of these colors stands for the color of a different food group. The orange group is the Grains group. Who can tell me what kinds of grain foods they like to eat?* Allow student to answer. *The green group is the Vegetables group. What kinds of vegetables do you like to eat?* Allow student to answer. *The red group is the Fruits group. What kinds of fruits do you like to eat?* Allow student to answer. *The blue group is the Dairy group. What kinds of dairy foods do you like to eat?* Allow student to answer. *And last but not least, the purple group is the Protein Foods group. What are some protein foods that you like to eat?* Allow students to answer. *It is important to eat different foods. Eating a variety of foods will help you grow strong and healthy because the different food groups give you different nutrients that are good for you. Today, we are going to do an activity that will get you thinking about eating a variety of foods.*

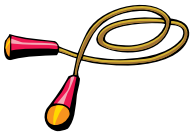
ACTIVITY DIRECTIONS:

1. Distribute one sheet of paper with a colored band across the top to each student. *I need everyone to get out their crayons.*
2. *You will see that at the top of your paper there is a colored band. Each color matches one of the food groups on MyPlate. If you have an orange band it is the Grains group. If your band is blue, it's the Dairy group. Does everyone know which group they have?* Make sure every student knows which group they have before you move on.
3. *I want you to draw your favorite healthy food that belongs to the food group that matches the colored band on your paper. So if you have a green band that is the Vegetables group, you might draw broccoli if you like to eat broccoli. If you know how to print/write the name of the food you drew underneath the picture. I will help you if you need help.* Allow the students to draw their favorite foods.
4. Once all of the students have finished drawing their foods, tell them get up from their desks and stand in a circle holding their paper in front of them so the rest of the students can see their drawing. *Now that you have drawn a picture of your food, we are going to go on a MyPlate Picnic. Who would like to start?* Choose a student to begin the activity.

MATERIALS:

- Blank paper
- Markers – orange, green, red, blue, purple
- Crayons (Each student should have their own crayons at their desk)
- MyPlate poster

1. *Okay, (name of student), you will begin the activity by saying, "I am going on a picnic and I am bringing (name of their food)."*
2. The next student in the circle repeats the phrase and adds their food. For example, if student #1 was bringing broccoli and student #2 was bringing apples, then student #2 would say, "I am going on a picnic, and I am bringing broccoli and apples."
3. Continue to go around the circle adding on each students' food and using the drawings as guides for the students until all of the students have had a turn. If there is time you can make the game more difficult by having some students hide their drawings to see if they can still remember the foods in the correct order.
4. *Wow! You guys are bringing lots of great foods on our picnic. I hope when you think about this activity, you will remember to eat foods from all of the food groups. Now we are going to play a game using foods from the MyPlate food groups.*



Physical Activity: MyPlate Corners

PRIOR TO ACTIVITY

Laminate the construction paper. Use the sticky tack to hang the construction paper around the room.

Note to Educator: This game is a variation of the game "Four Corners." You will need to hang the construction paper labeled with the name of the food groups in different areas of the room. Students will be allowed to go to any of the food group stations. They will perform a physical activity while standing at their chosen food group. One of the students will be designated as the "caller." Students standing in the food group section called by the student will be out.

Now that you are all familiar with the different food groups, let's play MyPlate corners! You will see the different food group signs around the room. Who can tell me what the names of the different food groups and the colors that match each food group? Choose one student to review the different food groups. ***Great job. Okay…let's play!***

ACTIVITY DIRECTIONS:

1. ***Who would like to be our first food group caller?*** Choose a student to be "it." ***The object of the game is to be the last person standing.***
2. ***Our food group caller is going to stand in the middle of the room, close his eyes and count to ten. Before he counts to ten he is going to shout out a movement, which is the movement you have to make to get to your food group. You can choose any movement such as hop, waddle, skip, run or even crawl on all fours!***
3. ***Once you choose a food group stay there and continue doing the movement until the food group caller counts to ten and calls out the name of a food group.***
4. ***Everyone standing at the food group that he calls must sit down.*** Once the students sit down start the process over with a new food group caller. All of the students who are out must continue to perform the movement with those still in the game.
5. The game continues until there is only one player left.

SUMMARY

We have done some fun activities with the colors and food groups of MyPlate. Let's review them one more time. Who wants to tell us the different colors on MyPlate? Allow a student to answer – orange, green, red, blue, and purple. ***Now, who can tell me the names of the different food groups?*** Allow a student to answer – Grains, Vegetables, Fruits, Dairy, and Protein Foods. ***Why is it important to eat from the different food groups every day?*** The different food groups have different nutrients we need to grow big and strong. ***Now remember to eat from the different food groups when you go home!***

MATERIALS:

- Construction paper – orange, green, red, blue, purple – labeled with the different food groups (Note: you can use the same laminated pieces of construction paper from the Pre-K/K physical activity.)
- Sticky Tack

Snack: MyPlate Dip

SERVINGS: 8

SERVING SIZE

¼ cup

INGREDIENTS

- 16 ounce can of beans (pinto, black, or kidney)
- Mild salsa – ½ cup
- Shredded low-fat cheddar cheese – ½ cup
- Ripe avocado – ¼
- Tortilla chips, preferably baked or multigrain – 6 chips

UTENSILS

- Colander
- Cutting board
- Measuring cups
- Measuring spoons
- Spoon
- Knife

DIRECTIONS

1. Drain and rinse beans under cold water.
2. Mash beans with a spoon until smooth.
3. Mash avocado into beans with a spoon until smooth.
4. Add the salsa and mix well.
5. Save a small amount of cheese for the topping and mix the rest into the bean mixture.
6. Serve dip with tortilla chips.

NOTE TO EDUCATOR:

When making this recipe in class, serve each student 2 Tablespoons of dip and 3 chips. This is the class snack size, which will serve 16 students.

COST ANALYSIS

Ingredient:	Cost per serving:	Cost per snack size:
Beans	$0.10	$0.05
Mild salsa	$0.38	$0.19
Low-fat cheddar cheese	$0.32	$0.16
Avocado	$0.25	$0.13
Tortilla chips	$0.38	$0.19
Total	**$1.43**	**$0.72**

NUTRITION ANALYSIS:

Nutrition Facts

Serving Size (88g)
Servings Per Container

Amount Per Serving

Calories 80 Calories from Fat 20

	% Daily Value*
Total Fat 2.5g	**4%**
Saturated Fat 0.5g	**3%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 300mg	**13%**
Total Carbohydrate 11g	**4%**
Dietary Fiber 3g	**12%**
Sugars 1g	
Protein 5g	

Vitamin A 2% • Vitamin C 6%
Calcium 4% • Iron 4%

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

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

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

COMMONLY ASKED QUESTIONS:

Q: Why do we need to eat foods from each of the food groups every day?

A: The foods in each of the different food groups provide us with different nutrients that our bodies need to be healthy. Leaving out a food group could lead to a deficiency of a nutrient.

Q: How can I find out how much food I need every day?

A. Visit www.ChooseMyPlate.gov to get a personalized recommendation based on age, height, weight, sex, and activity level.

Dear Parent or Caregiver,

For the next six weeks your child is going to learn about nutrition using the *Youth Undertanding MyPlate* (YUM) curriculum developed by the University of Florida Cooperative Extension Service. This curriculum focuses on *MyPlate*, the newest symbol designed by the US Department of Agriculture to help Americans eat healthier. Today your child was introduced to *MyPlate,* the different food group names and colors, and which foods belong in each group. Ask your child which is their favorite food from each of the food groups. Eating a variety of foods from each of the different food groups provides us with different nutrients that our bodies need to be healthy, so it is important to eat a variety of foods from the different food groups every day.

You can start helping your child eat healthier by preparing the snack on the back of this letter for MyPlate Dip. It's a healthy snack that includes foods from all of the food groups. Below is a list of activities you can do at home with your child to encourage them to eat a varied diet.

- Allow your child to help with grocery shopping. Let them pick out foods for the family to eat from each of the five food groups. This allows your family to eat a variety of food.

- Ask your child to name the food group and to tell you the color that corresponds with that food group for foods he/she eats during the week.

With the information your child learned today and these at home activities, we hope that your child will eat foods from each of the five food groups on *MyPlate* every day. For more information about *MyPlate* and to determine how much food you and your child need daily, visit www.ChooseMyPlate.gov.

Sincerely,

LESSON 2

The Goods on Grains

Concept

Foods from the Grains group should make up a large proportion of the diet. Although whole grains provide most of the nutritional benefits, most children do not get the recommended amounts. This lesson will introduce children to the Grains group with a focus on whole grains and fiber. Children will be encouraged to consume more whole grains as part of a healthy diet.

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Background

The Grains group is the orange section on MyPlate. Grains are an important part of a healthy diet and, as indicated by MyPlate, should make up approximately one quarter of the plate. All grains provide important nutrients for the body, but whole grains also provide fiber, which helps keep children and adults healthy. Teaching children the importance of whole grains for good health and how to recognize different types of whole grains can help them make food choices that are good for their bodies.

There are several differences between whole grains and refined grains. Whole grains consist of three main parts – the germ, the endosperm, and the bran. The germ is found inside the grain kernel and contains B vitamins, minerals, healthy fats, and a small amount of protein. The endosperm makes up most of the kernel, but doesn't have as many nutrients as the germ. The bran is the outside of the kernel and provides a source of fiber. Unlike whole grains, refined grains are processed to remove the bran and the germ, which makes the grain products softer and more appealing to many consumers; however, the processing also removes most of the fiber, vitamins, and minerals (1). Since certain vitamins and minerals are lost through the refining process, food companies are required to add B vitamins like thiamin, niacin, and riboflavin, as well as the mineral, iron, back to the grains, a process referred to as enrichment (2). Folic acid also is added to these products because of its important role in reducing the risk of having a baby with birth defects that affect the spinal cord. Choosing whole grain foods will provide children with these vitamins and minerals, as well as the fiber needed to help them stay healthy.

Parents and caregivers can visit www.choosemyplate.gov to get nutrition information for their children. The amount of grains each child needs will depend on the child's age, sex, and physical activity level. For example, a five-year-old girl who is active for at least 60 minutes a day needs at least five ounces of grains every day. A one ounce serving of grains is equal to one regular slice of bread, one half of an English muffin, or one half cup of cooked oatmeal, rice, or pasta. More examples of what counts as a one-ounce equivalent of grains are available on the www.choosemyplate.gov website. It is important to make sure that half of this recommended amount of grains comes from whole grain sources, so this five-year-old girl should get 2 ½ ounces of whole grains every day (3). Examples of whole grains include: whole wheat flour, oatmeal, whole cornmeal, brown rice, barley, and popcorn (2). Sometimes it can be confusing for parents and caregivers to choose whole grain products. One way to determine if a food contains whole grains is to look at the ingredients list. If the first ingredient has the word "whole" in front of the name of a grain, then it contains at least some whole grain. If the ingredients list uses words like wheat or wheat flour, multigrain or stone ground, it may or may not be a whole grain food. The Whole Grains Council has made it easier for families to find whole grain products by labeling different foods with the Whole Grain Stamp. There are two kinds of stamps available: the Basic Stamp and the 100% Stamp. Buying food with either stamp guarantees that the food contains at least half a serving of whole grain, but the 100% Stamp guarantees that all of the food's grain ingredients are whole grains and that the product contains a full serving of whole grains (4).

THE BASIC STAMP

THE 100% STAMP

Eating whole grains provides many health benefits. According to the Academy of Nutrition and Dietetics, populations that consume more dietary fiber have a lesser chance of developing chronic diseases like cardiovascular disease or type 2 diabetes (5). The extra fiber has also been shown to lower cholesterol and blood pressure, as well as increase satiety after a meal, which is linked to lower body weight (6, 7).

In summary, choosing whole grains over refined grains provides children and adults with more fiber, in addition to vitamins and minerals, which are important for good health. Although it may seem difficult to find foods that have whole grains, reading the ingredients list and looking for the Whole Grain Stamp can make it easier to choose whole grain products. Making sure children get enough whole grains

every day and teaching them to choose whole grain products will help them live a healthier life and maintain a healthier weight.

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2nd Grade Lesson

LEARNING OBJECTIVES

The students will:

- identify foods that are whole grains.
- state that half of the grains they eat every day should be whole grains.
- recognize that whole grains contain fiber, which is necessary for good health.

BEHAVIORAL OBJECTIVE

The students will

- consume more whole grains.

FLORIDA STANDARDS

HEALTH EDUCATION

HE.2.B.3.2: The student will name healthy options to health-related issues or problems.

HE.2.C.1.6: The student will recognize the locations and functions of major human organs.

PHYSICAL EDUCATION

PE.2.M.1.1: The student will perform locomotor skills with proficiency in a variety of activity settings to include rhythms/dance.

PE.2.L.2.8: The student will engage in sustained physical activity that causes an increased heart rate and heavy breathing.

PE.2.L.2.9: The student will perform appropriate stretching exercises.

DANCE

DA.2.F.3.1: The student will follow directions given by the teacher or peers, and work successfully in small-group, cooperative settings.

DA.2.S.3.2: The student will perform bending and reaching exercises to increase strength, stamina, flexibility, and range of motion.

DA.2.S.3.3: The student will repeat given moments to show coordination between body parts.

SCIENCE

SC.2.L.14.1: The student will distinguish human body parts and their basic functions.

Learning Activity: From Seeds to Your Food

MATERIALS

- 1 MyPlate poster
- 2 Grain kernel pictures, provided
- 3 Word labels (bran, germ, endosperm), provided
- 2 Flour pictures (bag of whole wheat flour, bag of white flour), provided
- 2 Bread pictures (slice of whole wheat bread, slice of white bread), provided
- 8Whole grain food pictures (whole wheat roll, whole wheat pancakes, brown rice, whole wheat pasta, whole wheat macaroni noodles, oatmeal, popcorn, whole wheat cereal), provided
- "Remember the Grain" Card Game (16 cards per set), provided
- 1 sheet of paper at least 5' long by 3' wide (can be cut from a roll of packing or butcher paper)
- 1 black or dark colored pencil
- Sticky Tack
- 3 Body part pictures (stomach, intestine, heart), provided
- 2 22" x 28" white poster boards

PRIOR TO ACTIVITY

Print and cut out grain kernel pictures. Cut each part of the grain kernel (bran, germ, endosperm) so they are three separate pieces. Do this for both grain kernel pictures and laminate each piece. Print, cut out, and laminate word labels (bran, germ, and endosperm), flour pictures, bread pictures, and whole grain food pictures (i.e., oatmeal, whole-wheat pancakes, whole grain cereal, whole grain spaghetti, whole grain macaroni noodles, whole grain roll, brown rice, popcorn). Turning the poster boards so they are landscaped, write the words "The Grain Seed" on one and "Whole Grain Foods" on the other. Attach the parts of the grain kernel (i.e., germ, bran and endosperm) to the board titled, "The Grain Seed" using Sticky Tack. This should depict what two entire grain seeds look like before processing. Position these 2 grain seed pictures across from each other on the top half of the poster board (see "Whole Grain Foods" diagram). Print and cut out enough copies of the "Remember the Grain" card game for half the number of students in the class. If you will reuse the card games, laminate them. Another option is to print and cut out enough copies for every student in the class so they can each take home a game.

ACTIVITY INTRODUCTION

Gather the children together. ***Raise your hand if you can tell me the name of one of the MyPlate food groups.*** Call on children. The answers are: the Grains, Fruits, Vegetables, Dairy and Protein Foods groups. T***oday we are going to talk about the Grains group on MyPlate. Raise your hand if you know the color of the Grains group.*** Call on students to answer. ***Yes, the Grains group is orange. Point to the orange Grains group on the MyPlate poster. Today we're going to learn about grains, especially grains that are called whole grains.***

Did you know that grains start out as seeds? Point to grain kernel on the left side of the poster board. ***This is a grain seed. It has three different parts.*** Point to the bran on the left side of the poster board and place the arrow with the word bran attached to it on the board. ***This is the bran. Let's all say that word together – bran. The bran is like the skin of the seed. The bran contains fiber and vitamins. Fiber and vitamins are important for good health.*** Point to the germ on the left side of the poster board and place the arrow with the word germ attached to it on the board. ***This is the germ. Let's all say that word together – germ. The germ contains vitamins too.*** Point to the endosperm on the left side of the poster board and place the arrow with the word endosperm attached to it on the board. ***This is the endosperm. Endosperm is a big word. Let's say it together – end-o-sperm. The endosperm is the largest part of the seed. Grain seeds can be made into flour, and flour can be used to make some of the foods you eat every day. Raise your hand if you can tell me the name of a food that is made with flour. There are many potential answers: bread, bagels, pancakes, crackers, pasta, cakes, cookies, etc.***

Sometimes flour is made from only part of the grain. The parts of the grain that are removed are the bran (remove the bran from the grain seed on the right side of "The Grain Seed" board) ***and the germ*** (remove the germ from the grain seed on

the right side of "The Grain Seed" board) ***What's left? That's right – the endosperm. Foods made with flour that only have the endosperm are NOT whole grain. These are called "refined grains."*** Stick the picture of the bag of white flour underneath the remaining picture of the endosperm on the left side of the board with Sticky Tack. ***White flour is not a whole grain because it is only made from the endosperm. The white flour can be made into a piece of white bread*** (stick the picture of the white bread slice underneath the bag of white flour with Sticky tack) ***or many other refined grain foods. What parts of the grain seed are missing from foods made with the white, refined flour?*** Call on students to answer. ***Yes, that's right. The bran and the germ are missing. Does anyone remember what the bran contains?*** Call on students to answer. ***This might be hard for them to remember.*** You might remind them that the bran contains things that are important for good health. ***The bran contains fiber and vitamins. The germ also contains vitamins. Since white flour is missing its bran and germ, it loses its fiber and most of its vitamins. The vitamins are added back to the flour before you buy it, but the fiber is still missing.***

Can you remember the names of the parts of a whole grain? Raise your hands if you remember. Call on children to answer. Point to the grain seed that is fully assembled on the left side of the board. ***That's right, the bran, the germ and the endosperm.*** Stick the whole-wheat flour picture underneath the picture of the whole grain seed with Sticky Tack. ***Sometimes ALL of the grain seeds parts are used to make flour. Trace your finger in a circle around the whole grain seed on the foam board. This is called whole-wheat flour. Point to the bag of whole-wheat flour. Whole-wheat flour can be used to make whole wheat bread or many other whole grain foods.*** Stick the picture of whole wheat bread underneath the picture of whole-wheat flour with Sticky Tack. ***Do you remember what is missing in white flour that is needed for good health?*** Call on someone to answer. If they say vitamins, remind them that vitamins are added back to white flour; if they say the bran or the germ, tell them that yes, white flour is lacking the bran and the germ, but what's in the bran that is needed for good health aside from vitamins. ***Yes, that's right, fiber. Whole wheat bread contains all of the fiber found in whole grain seeds. Fiber is very important for good health, which is why it is important to make half of the grains you eat every day whole grains!***

Let's talk about fiber! Now I need a volunteer! Select a volunteer from the class. Lay the large piece of paper flat on the ground. Instruct the student to lay flat on their back on the paper and trace their body with the crayon. Attach the tracing to the board or wall using Sticky Tack, magnets, or pushpins. ***This is your body! P***oint to body outline. A diagram of the body is included at the end of the lesson instructions to show you where to point. ***When you eat whole grains*** (point to the head where the mouth would be) they travel through your body into your stomach). ***Can you tell me where your stomach is?*** Ask a student to come up to the tracing and point to where the stomach is and stick the picture of the stomach in the middle of the body with Sticky Tack. ***Foods with fiber take longer to move from your stomach into your intestines so it keeps you feeling full longer! Eating whole grains as part of your breakfast can help keep your stomach*** (point to stomach) ***from growling before lunchtime! Can you tell me where your intestines are?*** Ask a student to come up to the tracing and point to where the intestines are located. Stick the picture of the intestines below the stomach with Sticky Tack. ***The fiber also helps keep your intestines*** (point to intestines) ***healthy, which is important, especially as you grow older! Fiber helps keep your heart healthy too, and we all know it's important to have a healthy heart!*** Ask a student to come up to the

tracing and point to where the heart goes. Stick the picture of the heart above the stomach toward the left side of the tracing with Sticky Tack.

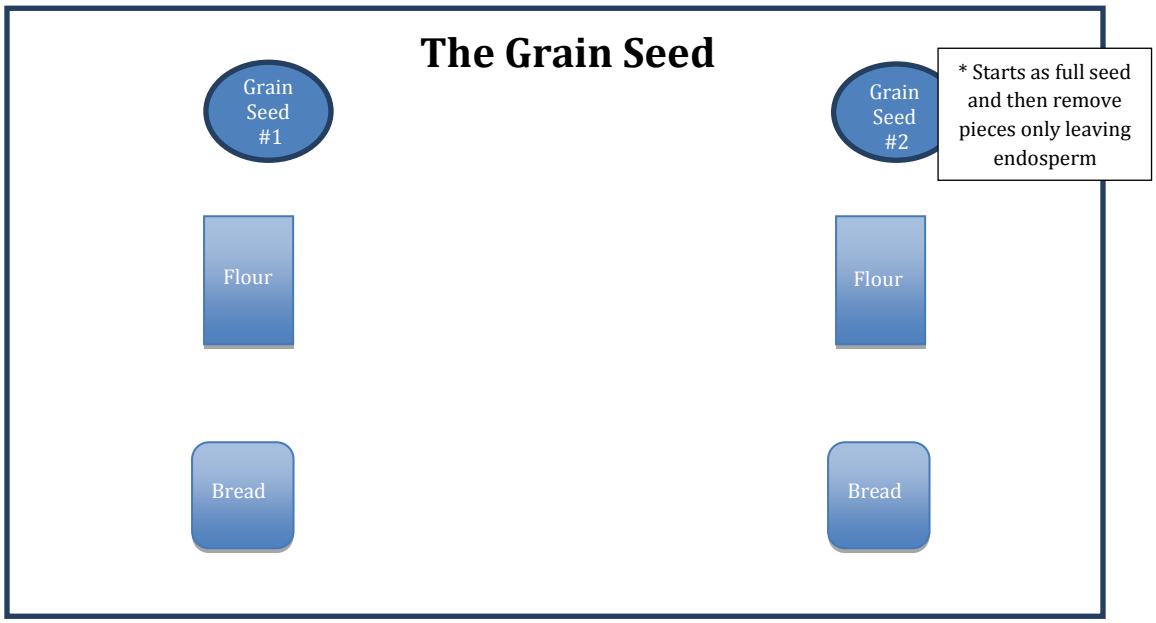
Now that you know all about whole grains and fiber, who can name a whole grain food? Call on any students who raise their hands. Correct answers include whole wheat bread, pancakes made with whole-wheat flour, whole grain cereal, brown rice, whole-wheat buns, whole-wheat pasta noodles, etc. If they call out the names of any of the foods in the provided pictures, stick those pictures on the board labeled "Whole Grain Foods" using Sticky Tack. If they forget to insert the words whole grain or whole wheat in front of some of items where it is appropriate to do so, prompt them by saying "what kind of toast?" made with what kind of flour?". If they are struggling coming up with examples, try giving them hints. Say things like, "What is a hot cereal you could eat for breakfast?" or "What breakfast food can you make with whole wheat flour and eat with syrup?" *These are just a few examples of whole grain foods! You can eat some these foods every day to try and make half of your grains whole grains every day!*

So, you should have lots of ideas of ways to get whole grains in your diet. How many of the grains you eat should be whole grains? Call on a student. *Yes, exactly. Half of the grain foods you eat should be whole grains. Do you think you can try to eat more whole grains every day? What is in whole grains that is so important? Fiber; vitamins could also be an answer, but the emphasis is on fiber. Fiber is good for which parts of your body? Heart, stomach and intestines –* point to the tracing when students give these answers. *And one more time, how many of the grains you eat should be whole grains? Half. Now who wants to play a game?*

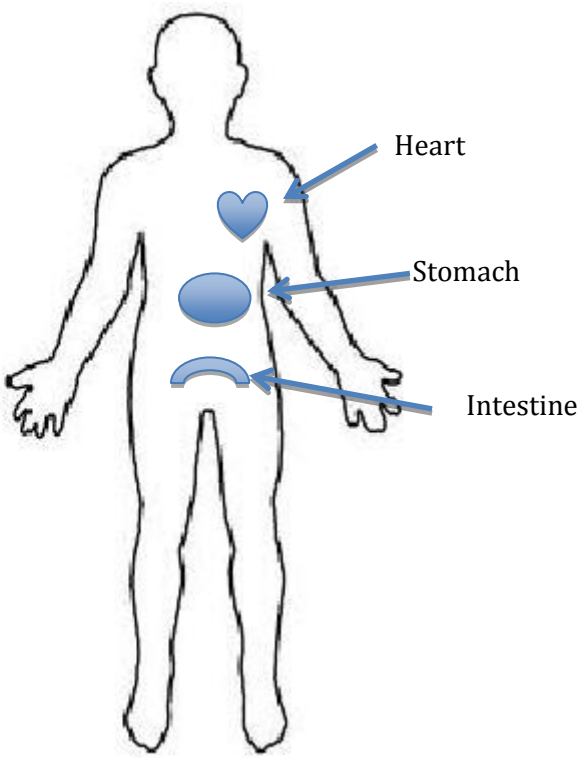
"MEMORY GRAINS" ACTIVITY DIRECTIONS:

1. Divide the class into pairs.
2. Distribute one set of the "Remember the Grain" card game to each pair of students (each game card set has 16 cards). This is a memory game!
3. Instruct the students to shuffle the cards and lay them face down in front of them in four rows of four. Keep your cards face down.
4. The students will take turns flipping over two cards and trying to find a match. If they find a match they keep the match and get another turn until they miss. When I tell you to start, one of you will pick up one card and look at the picture. Then pick up a second card to see if it matches. If the pictures match, set them to the side and have another turn. If they do not match put them back where they were and your let your partner pick up a new card and look for a match. Try to remember where each picture is and keep trying until you can find all of the pairs!

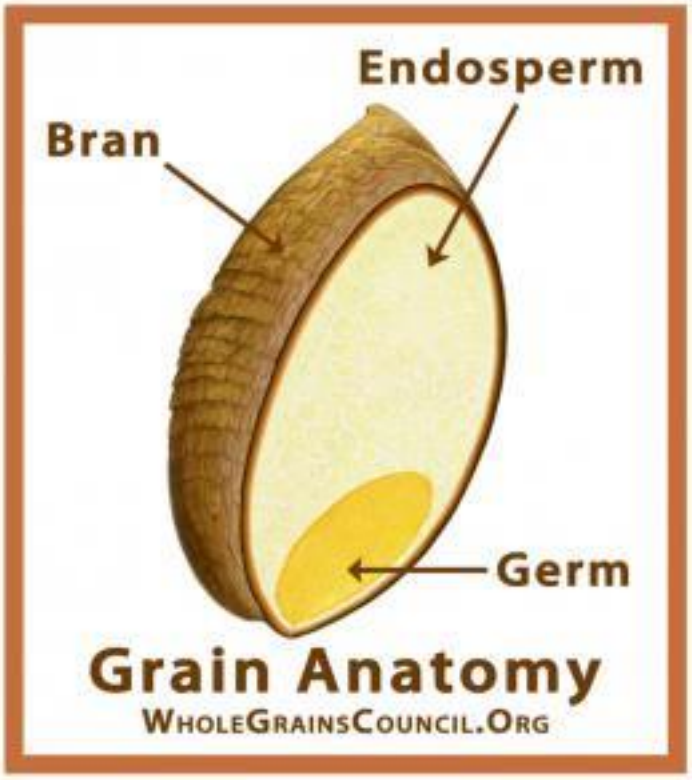
“The Grain Seed” poster example



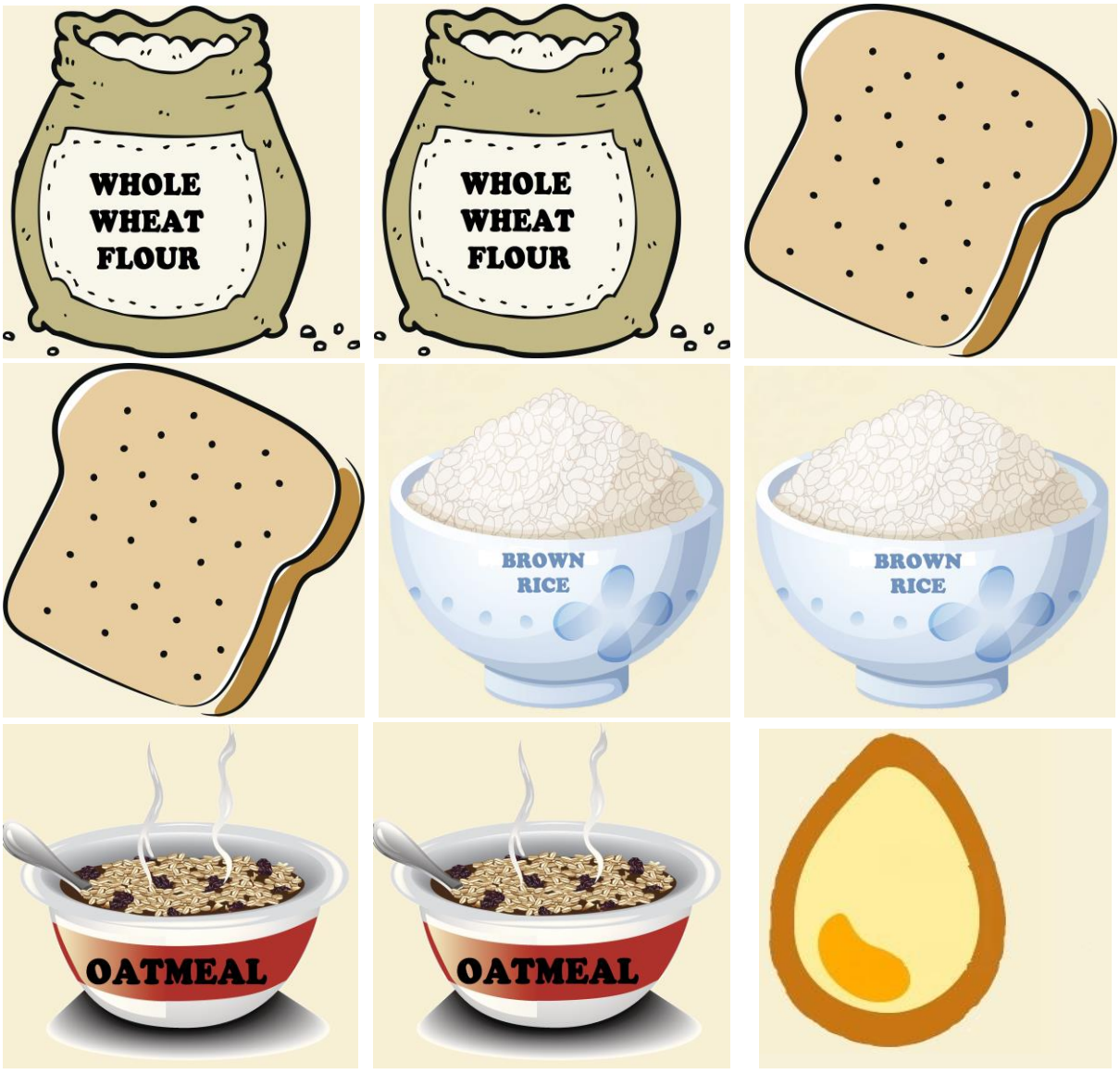
Human Body example

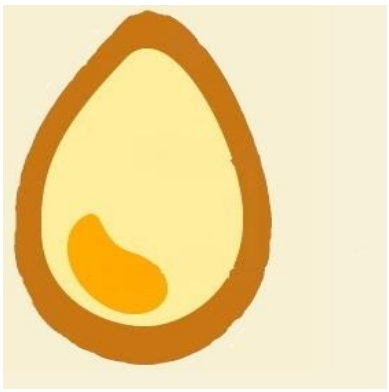


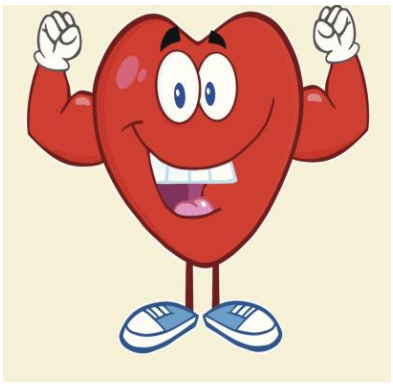
Grain Seed Diagram

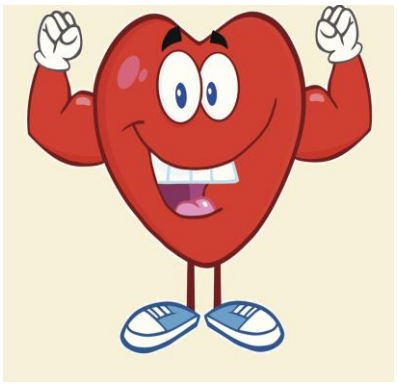


“Memory Grains” Cards:

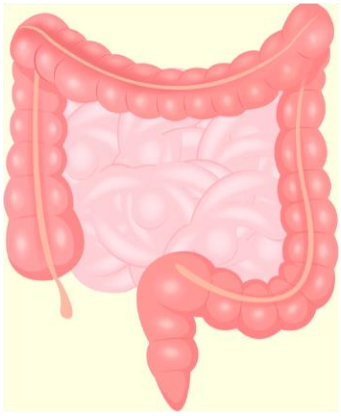


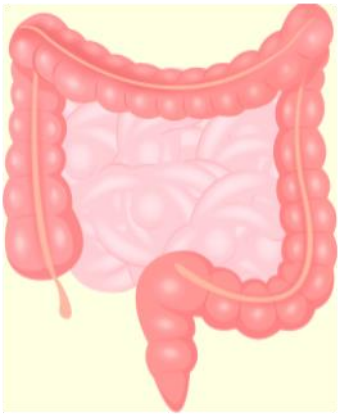






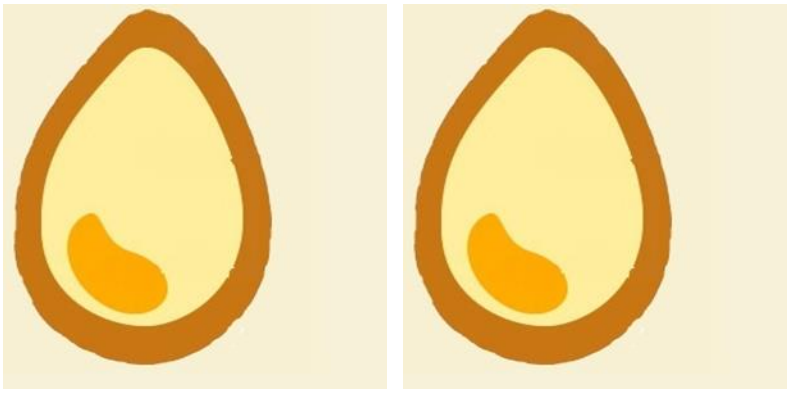
Fiber Fiber





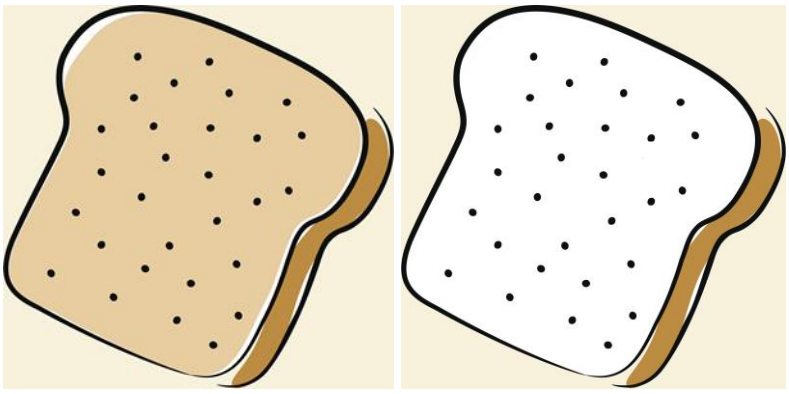
Printable Materials:

For "The Grain Seed" Poster

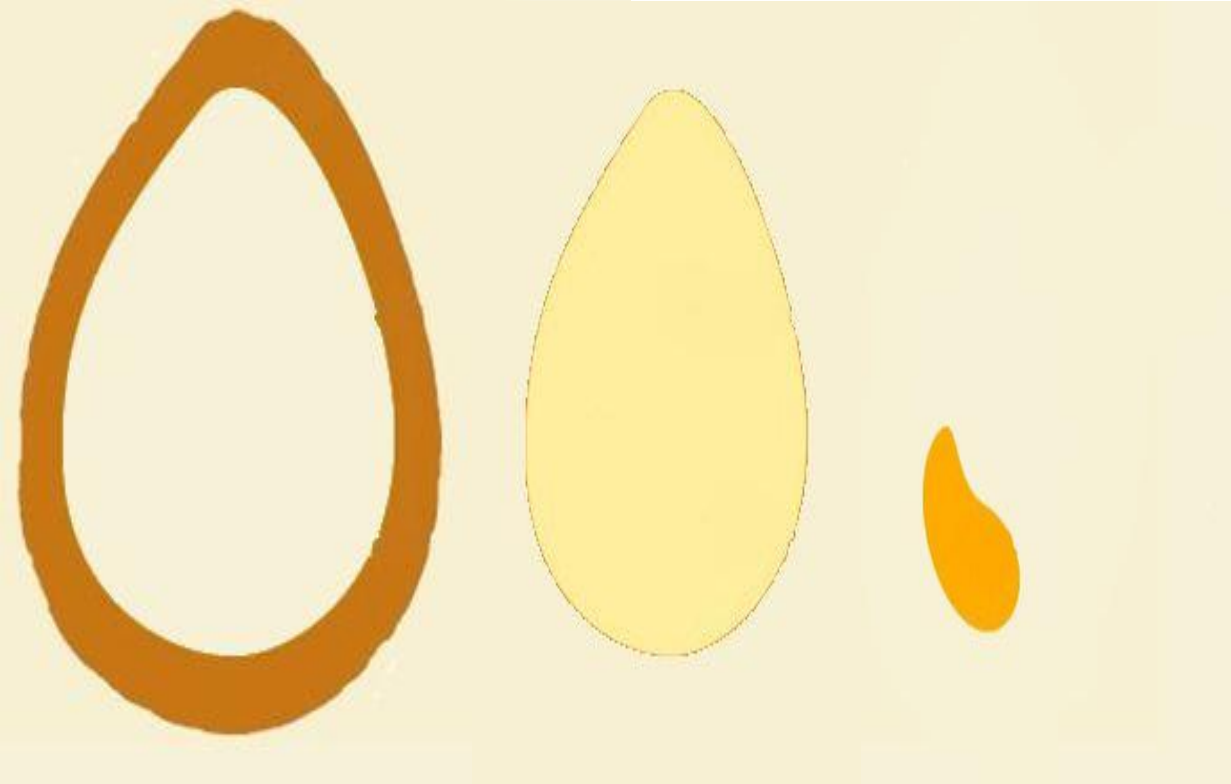


Whole Grain Kernels

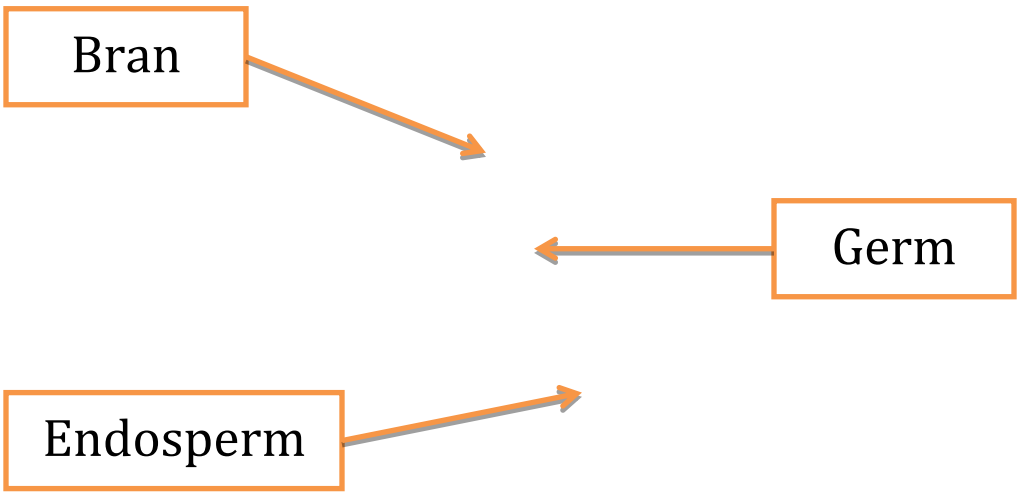
WW Flour / RG Flour



WW Bread / RG Bread

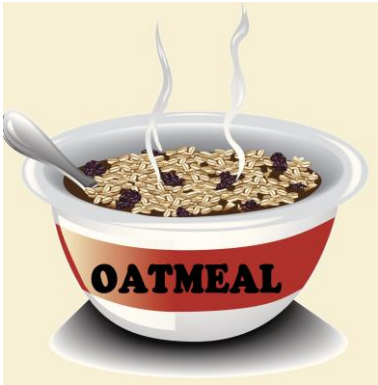


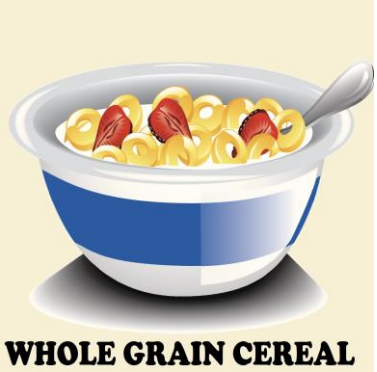
Separated bran, endosperm, and germ



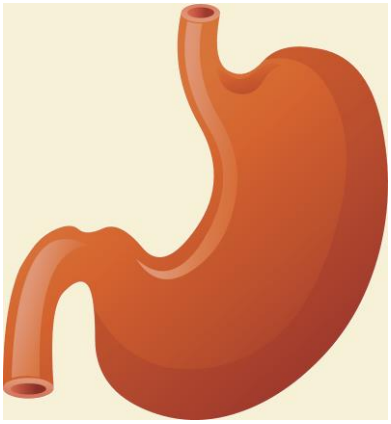
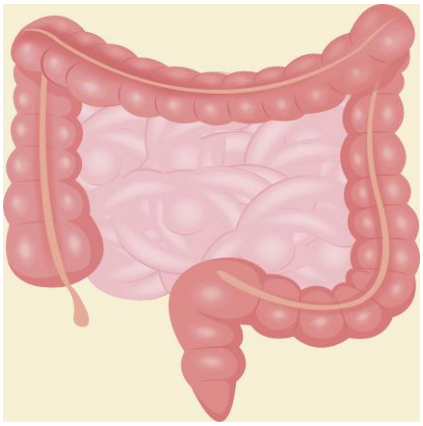
Bran, endosperm, and germ labels

For the “Whole Grains Foods” Poster

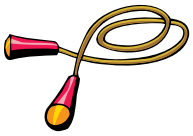




Fiber body parts:

Heart, stomach, and intestines



Physical Activity: Whole Grain Freeze

PRIOR TO ACTIVITY

If educator does not have access to computer and projector, print the picture shown on the PowerPoint onto separate sheets of paper. Play the music while showing the pictures instead of using the PowerPoint Presentation.

ACTIVITY INSTRUCTIONS

1. *Gather students in the middle of the floor and have them spread out. Today we are going to play a game and learn some moves to help you remember what we learned about grains and to keep you active and healthy!*
2. *Does anyone like to play freeze dance? Well this is just like freeze dance, except I'm going to teach you some dance moves to help you remember the whole grain foods we talked about today! Is everyone ready to learn the moves? Review each of the following dance moves with the students while scrolling through the PowerPoint slides or holding up the printed pictures:*
   - **Whole Wheat Noodle Wiggle:** *Stand straight with your feet together and wiggle your arms above your head while wriggling your upper body from side to side.*
   - **Whole Grain Cracker Crunch:** *Stand up straight, place your hands on your hips and alternate stomping your feet on the ground.*
   - *Popcorn Pop: Squat down to the ground, touch your toes, and then jump straight up into the air.*
   - **Brown Rice Stretch:** *Stand straight with feet together. Extend arms straight above your head and place hands together as if you are forming a point. Gently sway the body back and forth from one side to the other.*
   - **The Oats Roll:** *Hug your arms into your body tight and slowly spin in a circle.*
3. *Does everyone remember all of the moves? Briefly name and perform all of the moves again having the students do them with you while going through the pictures to refresh the student's memory.*
4. *This is how we play the game! I am going to play a video on the screen that is going to show these pictures. I will also be playing music! If a picture comes up on the screen, do the move that goes along with the picture until the picture changes. For example, if Whole Wheat Noodles (hold up Whole Wheat Noodles picture) comes up on the screen, do the Whole Wheat Noodle Wiggle until the picture changes to one of the other whole grains we just talked about. Keep moving until the music stops. When the music stops you have to freeze in place! If you keep moving or fall out of place you will have to march in place until the next time I freeze the music, then you can join back in the game. Does anyone have any questions? I will do the first few moves with you to make sure you all remember them.*
5. *Begin the PowerPoint presentation. Perform the moves along with the students as they appear on the screen to make sure they remember.*
6. *Start the game. Pause the music at random time intervals. After the presentation and music stop, instruct any students who are still moving to march in place. Keep repeating this until the music ends.*

MATERIALS

- Whole Grain Freeze Dance PowerPoint, provided (WholeGrainFreeze.pptx)
- Computer or mp3 player and speaker
- Projector







Whole Grain Freeze!

Are you ready?

Let's Play!





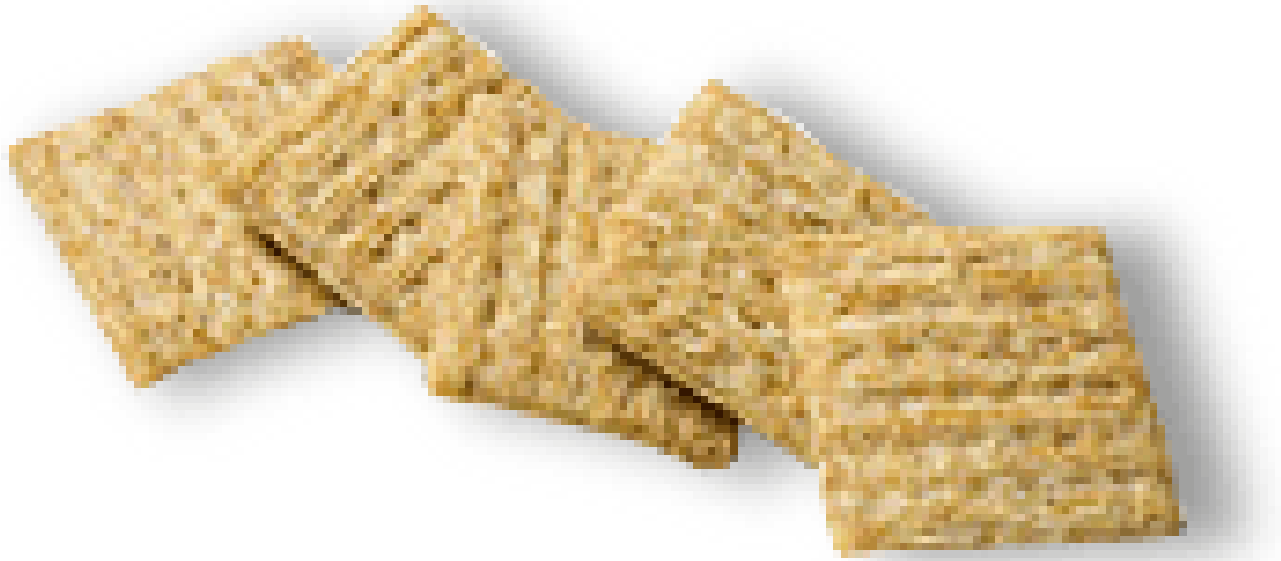



The Whole Wheat
Noodle Wiggle!

The Oats Roll!

The Popcorn Pop!

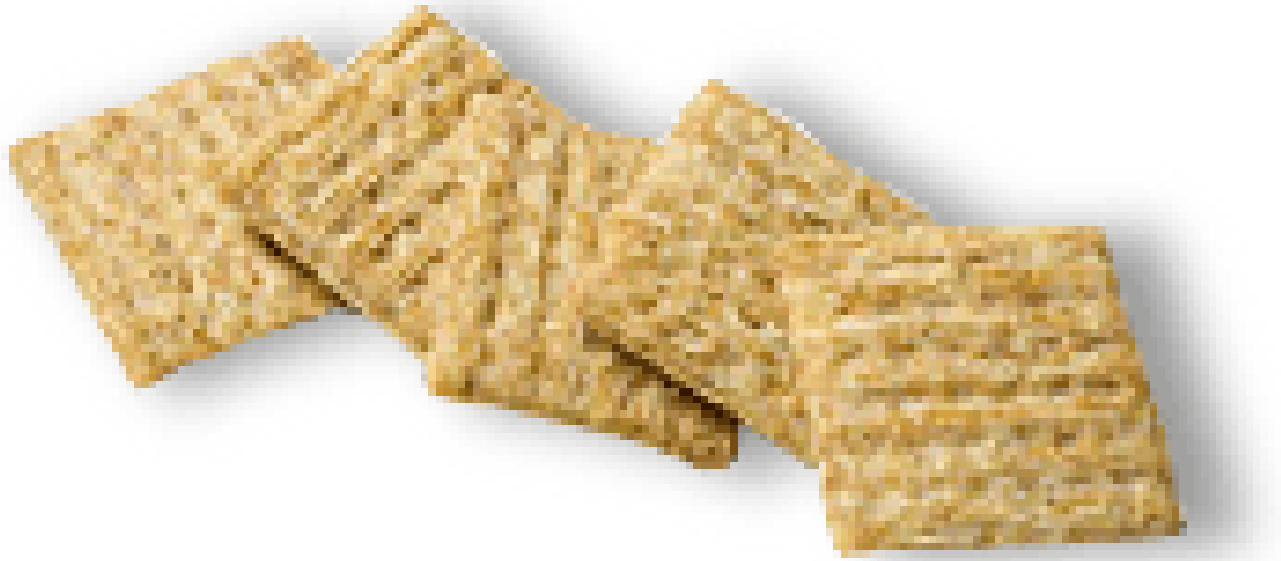

The Brown Rice
Stretch!



The Whole Grain Cracker Crunch!


The Whole Wheat
Noodle Wiggle!

The Oats Roll!



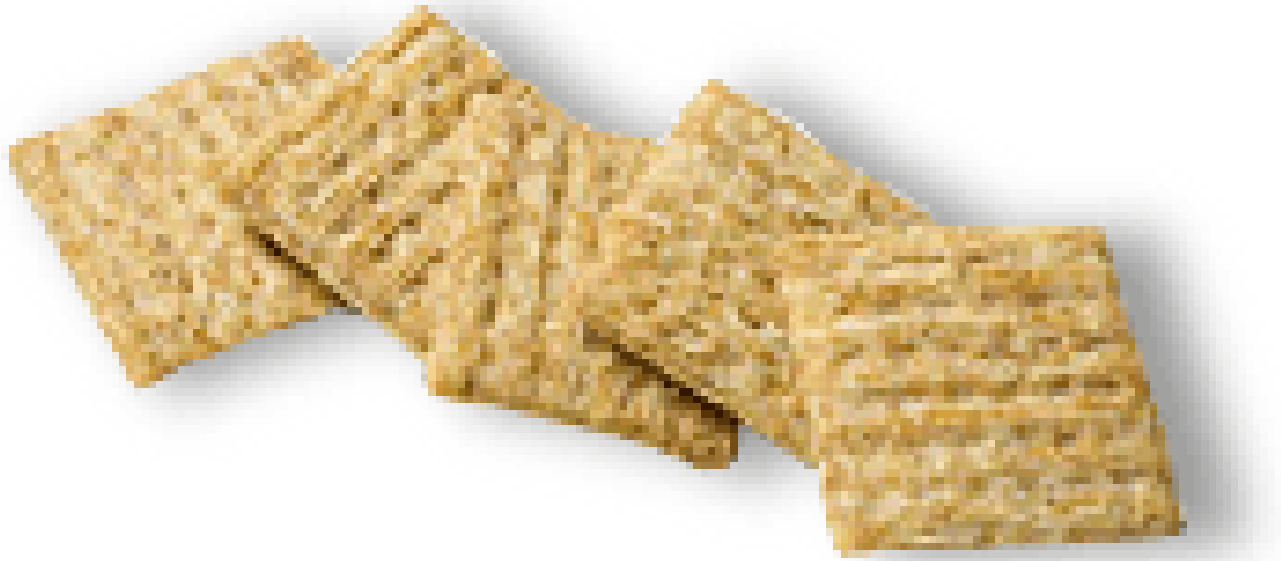
The Whole Grain Cracker Crunch!


The Brown Rice
Stretch!

The Popcorn Pop!


The Whole Wheat
Noodle Wiggle!


The Brown Rice
Stretch!



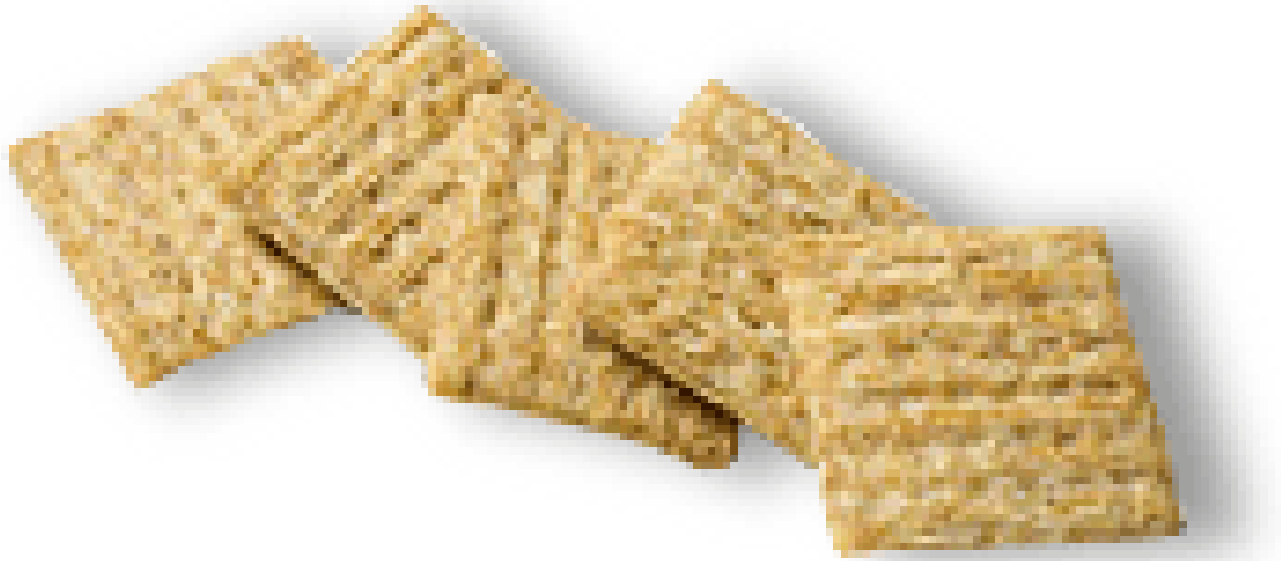
The Whole Grain Cracker Crunch!

The Oats Roll!

The Popcorn Pop!

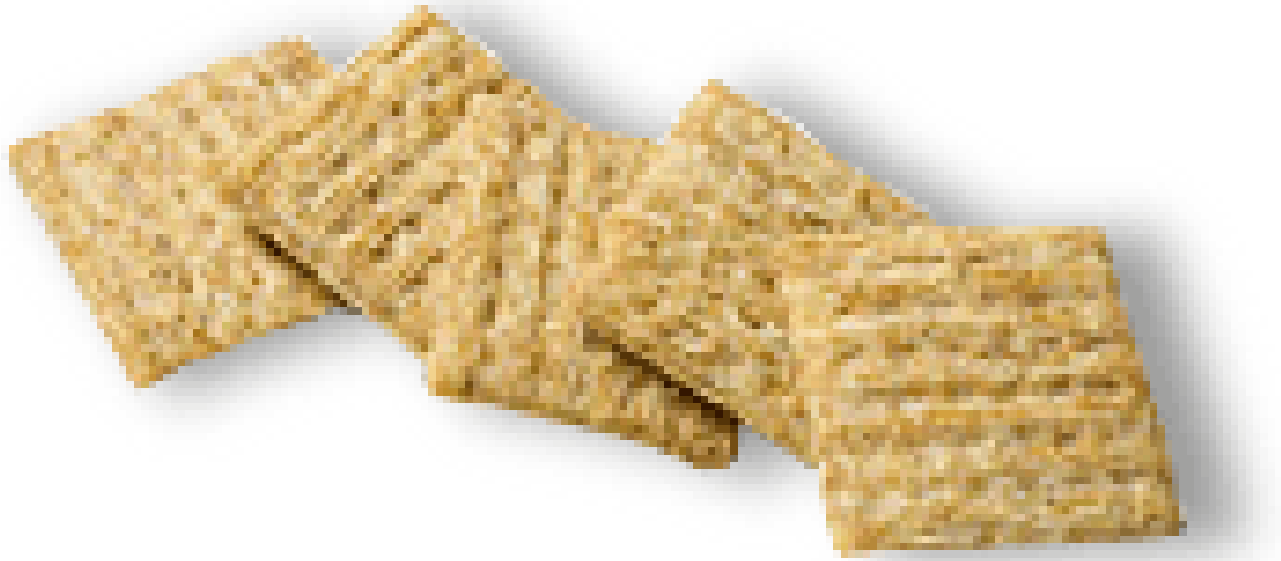

The Whole Wheat
Noodle Wiggle!

The Popcorn Pop!



The Whole Grain Cracker Crunch!

The Oats Roll!



The Whole Grain Cracker Crunch!


The Brown Rice
Stretch!

The Oats Roll!


The Whole Wheat
Noodle Wiggle!

The Popcorn Pop!


The Brown Rice
Stretch!

Snack: Fiber Friends Snack Mix

SERVING SIZE: 1

INGREDIENTS

- 1/2 muffin 100% Whole Wheat English Muffin
- 2 teaspoon Creamy Peanut Butter
- 2 teaspoon Toasted Whole Grain Oat Cereal
- 2 teaspoon Raisins

SERVING SIZE: 1 snack serving

INGREDIENTS

- 1/8 muffin 100% Whole Wheat English Muffin
- 0.5 teaspoon Creamy Peanut Butter
- 3 teaspoon Toasted Whole Grain Oat Cereal
- 3 teaspoon Raisins

SERVES: 18

INGREDIENTS

- 2 ¼ muffins 100% Whole Wheat English Muffin
- 3 tablespoon Creamy Peanut Butter
- 3 tablespoon Toasted Whole Grain Oat Cereal
- 3 tablespoon Raisins

DIRECTIONS

PRIOR TO THE CLASS

1. Using a knife, split 3 English muffins into 6 halves.
2. Spread 2 teaspoons of peanut butter onto each muffin half. Put the muffin halves together and cut into quarters using

NUTRITION ANALYSIS PER SERVING

Nutrition Facts
Serving Size 1 serving

Amount Per Serving	
Calories 148	
	% Daily Values*
Total Fat 5.9g	**9%**
Saturated Fat 0.8g	**4%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Potassium 56.5mg	**2%**
Sodium 162.4mg	**7%**
Total Carbohydrate 20.5g	**7%**
Dietary Fiber 2.5g	**10%**
Sugars 5.8g	
Protein 5.1g	**10%**

Calcium 5.2%	•	Iron 9%
Vitamin E 5%	•	Thiamin 1.7%
Riboflavin 2%	•	Niacin 8%
Vitamin B6 1.9%	•	Folate 2.1%
Vitamin B12 1%	•	Pantothenic Acid 4.1%
Zinc 1.1%		

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

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Nutrition Facts
Serving Size 1 snack serving

Amount Per Serving	
Calories 37.2	
	% Daily Values*
Total Fat 1.5g	**2%**
Saturated Fat 0.2g	**1%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Potassium 13.1mg	**0%**
Sodium 41.6mg	**2%**
Total Carbohydrate 5.1g	**2%**
Dietary Fiber 0.6g	**2%**
Sugars 1.4g	
Protein 1.3g	**3%**

Calcium 1.3%	•	Iron 2.3%
Vitamin E 1.2%	•	Niacin 2%
Pantothenic Acid 1%		

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

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

a sharp knife. (This will make 24 pieces.) Transport the muffins in an airtight container.

IN CLASS

3. Put each piece of muffin on a napkin. Top each muffin with 3 raisins and 3 pieces of oat cereal.
4. Serve to students.

NOTE TO EDUCATOR

It is important to determine if any students in your class have a nut allergy before serving this snack with peanut butter. If you there are students with a nut allergy present, reduced fat cream cheese can be used in the place of peanut butter.

It is also important to determine if any students in your class have celiac disease, gluten intolerance, or a wheat allergy. A rice cake can be used instead of an English muffin for these students.

COMMONLY ASKED QUESTIONS

Q: What are the grain recommendations for children?

A: MyPlate recommends that children between the ages of 2 and 5 consume 3–5 ounces of grains every day, depending on age and activity level, which includes 1 ½ to 2 ½ ounces of whole grains. Children between the ages of 6 and 11 need 6 ounces of grains every day, which includes 3 ounces of whole grains every day. For a personalized recommendation, visit www.choosemyplate.gov.

Q: What are other examples of whole grains?

A: Other grains include amaranth, barley, brown rice, bulgur (cracked wheat), whole-wheat pasta or couscous, flaxseed, millet, oats, quinoa, rye, spelt, wheat berries, and wild rice

Q: What is celiac disease?

A: Celiac disease is an inherited, autoimmune disease in which the lining of the small intestine is damaged from eating gluten and other proteins found in wheat, barley, rye, and possibly oats. People with celiac disease can still eat grains, but they must be gluten free.

Q: What can children with celiac disease eat?

A: Children with celiac disease can eat the following foods:

- Ready-made breads, bagels and English muffins ONLY IF they are made with rice, potato, bean, soy, corn, sorghum, teff or other gluten-free flours and ingredients
- Frozen, gluten-free waffles
- Gluten-free pizza crust made from a mix or frozen ready-made
- Homemade breads, biscuits, pancakes, waffles, muffins or quick breads made from gluten-free flours
- Corn tortillas (check ingredients label to make sure the tortillas are not dusted with wheat flour)
- Brown rice
- Corn products (check ingredients; some corn-based products like some ready-to-eat cereals may contain gluten-containing ingredients)
- Quinoa
- Flax
- Millet

For more information visit the National Institute of Health Celiac Disease Awareness Campaign at http://www.celiac.nih.gov/Resources_HCProviders.aspx.

Dear Parent or Caregiver,

Today your child learned about the Grains group on MyPlate. We learned about the importance of eating whole grains and the need to select half of our grain choices from whole grain foods to keep us healthy. We also learned that whole grains contain fiber, and we reviewed the parts of the body that fiber helps keep healthy. Good sources of whole grains include 100% whole-wheat bread, whole-wheat flour, oatmeal, popcorn, and brown rice.

It is recommended that children between the ages of 4 and 8 eat 5-ounce equivalents of grains each day. The following are examples of 1-ounce equivalents of grains:

- 1 regular slice of bread
- 5 crackers
- ½ English muffin
- ½ cup cooked oatmeal
- 1 cup ready-to-eat cereal
- ½ cup cooked rice or pasta
- 1 small flour tortilla

Remember to make half your grains whole grains by choosing whole grain foods. An easy way to determine if a food is made of whole grains is to look at the ingredients list. If the first ingredient says whole grain before the grain then you can be sure it's made of whole grains. You can also look for the Whole Grain Stamps to make it easier to identify whole grain foods.

A snack recipe is included with this letter to provide you with an example of a way that you can include whole grains in your child's diet. Below is a list of activities that can help your child remember what they have learned today and improve their intake of whole grains.

- During this lesson, your child learned some exercise moves to help them remember the names of some popular whole grain foods like whole-wheat noodles, oatmeal, whole-wheat crackers, popcorn, and brown rice. Ask your child to show you these exercises and do them together.
- Let your child help you grocery shop and prepare simple meals and snacks. He or she can help you choose whole grain ingredients to add to your favorite recipes. When children are involved in choosing and preparing foods they are more likely to try them.

After learning about the Grains group on MyPlate we hope your child will come home excited to try adding more whole grain foods to their diet. To learn more about grains visit the USDA MyPlate website: www.ChooseMyPlate.gov. We hope this lesson has taught your child the importance of whole grains and that he or she will begin to eat more whole grains each day to stay healthy.

Sincerely

LESSON 3

Fun with Fruits and Vegetables

Concept

Most children do not consume the recommended amounts of fruits and vegetables. To get the optimal health benefits from fruits and vegetables, it is important to consume a variety of foods from these two food groups. This lesson focuses on teaching children about the importance of eating a variety of fruits and vegetables and their health benefits in a way that is fun and engaging.

yum
Youth Understanding MyPlate

Background

The Fruits group is the red group and the Vegetables group is the green group on MyPlate. Fruits and vegetables are an important part of a healthy diet because they are naturally cholesterol-free, low in fat and calories (1) and contain a variety of vitamins, minerals and fiber (2). A diet rich in fruits and vegetables is important for the physical and cognitive development of school-aged children (3). Most children do not consume the daily recommended amount of fruits and vegetables (4). They also consume too many calories and not enough of the nutrients their growing bodies need (4). School-based nutrition education programs that focus on fruit and vegetable consumption have reported favorable changes in eating habits, including greater willingness to try fruits and vegetables (5). A 2012 review of school-based nutrition interventions concluded that these programs have a positive impact on fruit intake, but only a minimal effect on vegetable intake (6), suggesting the need to design more effective programs to improve vegetable intake. The focus of this lesson is to teach students about the Fruits and Vegetables groups on MyPlate, as well as why these groups are essential for good health. The main goal of this lesson is to increase students' consumption of fruits and vegetables.

VITAMINS

Some of the key nutrients found in fruits and vegetables are vitamins A, E and C. Vitamin A is important for maintaining skin and eye health, and it plays a role in immunity, reproduction, bone growth and cell function (7). Vitamin E reduces cell damage (8). Vitamin C is important for wound healing, teeth and gum health and for growth and repair of tissues (9). Vitamins A, E and C are considered antioxidants. Antioxidants protect cells from free radicals, which cause damage to human cells. Free radical damage can increase the risk for developing heart disease and cancer (10). A study published in the Journal of the American Dietetic Association found that increased consumption of fruits and vegetables consistently lowered the risk of certain cancers like lung, mouth, stomach and colon (11).

Folate is a B vitamin needed for making red blood cells and other types of cells. Folate is extremely important for women of childbearing age. Women, adolescents and young girls who can become pregnant need to get enough synthetic folic acid, a type of folate, before pregnancy and throughout their pregnancy to reduce the chance of having a baby with a serious type of birth defect (12). It is important for a pregnant woman to have a healthy diet, as her diet has a direct impact on the developing fetus.

MINERALS

Some fruits and vegetables contain important minerals such as iron, potassium and calcium (11). Like folate and other nutrients, iron is important in the development of red blood cells because it carries oxygen throughout the body (12). An iron deficiency can lead to anemia, which can decrease red blood cell concentrations and increase fatigue, headaches and chest pain. Potassium helps to maintain a healthy blood pressure. Getting enough potassium may decrease the development of kidney stones and bone loss (2). Calcium is essential for the development and maintenance of healthy bones and teeth (11).

FIBER

Consuming fiber-rich fruits and vegetables helps to reduce constipation by maintaining proper bowel function. Eating fruits and vegetables also makes you feel fuller (1), which can help prevent people from eating too much. Diets rich in fiber also may reduce the risk for cardiovascular disease (1), the leading cause of death in the United States. Evidence from multiple studies suggests that dietary fiber at intakes ranging from 12 to 33 grams per day may lower blood pressure and improve serum lipid levels (15).

DIABETES

Every year more young children are showing risk factors for diabetes. This trend is reflected in the number of teens who are diagnosed with this disease. Studies have shown a correlation between consumption of dark green leafy vegetables and vitamin C rich fruits and vegetables and a decrease in developing type 2 diabetes (16, 17). Studies also show a correlation among fruit and vegetable consumption, weight status and diabetes. People who eat enough fruits and vegetables are more likely to have a healthy weight status, which reduces their chances for developing diabetes (18).

RECOMMENDATIONS

Eating an adequate amount of fruits and vegetables has been shown to have numerous health benefits, but how many fruits and vegetables must be consumed to be considered adequate? The MyPlate website (www.choosemyplate.gov) provides recommendations based on age, sex and activity level (19).

The general recommendation for fruit intake in children is 1 to 1½ cups per day. For vegetables, children need 1½ cups per

day (19). It's important to eat a variety of fruits and vegetables to supply the body with different nutrients (2). Additional guidelines include the recommendation to consume vegetables from each of the five subgroups every week. The subgroups include dark green vegetables, red and orange vegetables, beans and peas, starchy vegetables and other vegetables that don't fall into the other four subgroups (4). The MyPlate recommendations are provided in cups. One cup of a fruit or vegetable is defined as: 1 cup raw or cooked fruits or vegetables, 1 cup fruit or vegetable juice, ½ cup dried fruit, or 2 cups raw leafy greens (19).

In summary, it is important for children to eat enough of a variety of fruits and vegetables every day for good health. Fruits and vegetables contain fiber and numerous nutrients needed by the body to function normally and to protect against cancer and chronic diseases (10, 20). Including enough fruits and vegetables in the diet also will help children maintain a healthy weight.

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FLORIDA STANDARDS

HEALTH EDUCATION

HE.2.P.1.1: Demonstrate health behaviors to maintain or improve personal health. (physical activity and snack)

HE.2.P.1.2: Show behaviors that avoid or reduce health risks. (physical activity and snack)

READING/LANGUAGE ARTS

LACC.1.SL.1.2: Ask and answer questions about key details in a text read aloud or information presented orally or through other media. (learning activity)

LACC.1.SL.2.4: Describe people, places, things (fruits and vegetables), and events with relevant details, expressing ideas and feelings clearly. (learning activity)

2nd Grade Lesson

LEARNING OBJECTIVES

The students will:

- recognize that fruits and vegetables provide vitamins and minerals needed for good health.
- identify fruits and vegetables by name.
- classify fruits and vegetables according to the parts of plants from which they originate.

BEHAVIORAL OBJECTIVES

The students will:

- eat more fruits and vegetables.
- eat a variety of fruits and vegetables.

Learning Activity: My Fruit and Veggie Plant

PRIOR TO ACTIVITY

Plant poster:

- If using the plant illustration, enlarge "Plant Poster" file to 24" 36", print in color, and attach to center section of tri-fold poster board. On the two sides of the board, make 6 labeled sections (flower, fruit, stem, leaf, root, and seed). Attach one Velcro dot for every fruit/vegetable picture cut-out.
- If drawing plant diagram, draw labeled plant onto center of a tri-fold poster board. On the two sides of the board, make 6 labeled sections (flower, fruit, stem, leaf, root, and seed). Attach one Velcro dot for every fruit/vegetable picture cut-out.
- If using a Smartboard, pull the plant illustration up on the screen. On a 24" x 36" poster board, make 6 labeled sections (flower, fruit, stem, leaf, root, and seed). Attach one Velcro dot for every fruit/vegetable picture cut-out.

- Print the 18 fruit and vegetable pictures in color using ("F/V Pictures" file). Cut out the pictures on cardstock and attach one Velcro dot to the back of each picture.
- Print one "Fruit and Veggie Matching" handout in black and white for each student. If budget permits, attach each handout to a piece of colored construction paper.
- Print one "My Favorite Fruit or Vegetable" handout for each student in black and white.

ACTIVITY INTRODUCTION

Place "My Fruit and Veggie Plant" poster at the front of the classroom on a chair or chalkboard. Place it low enough so the students can attach pictures under each plant part. Have children come to the front of the classroom and sit on the floor around the poster board.

ACTIVITY DIRECTIONS

Today, we are going to learn about fruits and vegetables! Are you ready? GREAT! Raise your hand if you think fruits and vegetables are good for you. (Allow students to raise their hands.) ***That's great! You're right! Fruits and vegetables ARE good for everyone! Does anybody know why?*** (Allow students to answer. Examples of appropriate answers include: "They have vitamins.", "They have minerals.", "They help you to have a healthy weight", "They have fiber.", "They help your immune system be strong.") ***Those are some good answers. The reason why fruits and vegetables are good for us is because they have vitamins. Can everyone say "VITAMINS"? They also have minerals. Can everyone say "MINERALS"? Our bodies need vitamins and minerals to be healthy! Fruits and vegetables also have fiber, which helps us feel full so we don't eat too much. Not only are fruits and vegetables good for us, they are yummy too!***

Fruits and veggies come in many fun colors, shapes, and sizes. Can someone name a vegetable that is in the shape of a circle? (Allow students to answer. Examples of potential answers include peas, tomatoes, onions, and radishes.) ***Can someone name***

MATERIALS

- "My fruit and veggie plant" Tri-fold 36" by 48" poster board (refer to the file named: "Plant Poster" this file is a picture of a plant with each of the plant parts labeled).
  - A plant illustration is available to blow up and attach to the center section of the poster board.
  - Drawing the plant diagram onto poster using coloring markers is another option.
  - If a Smartboard is available, the plant illustration can be pulled up on the Smartboard. If you choose this option, a 23" x 36" poster board with labeled plant part sections will be needed instead of a 36" x 48" tri-fold poster board.
- 18 fruit and vegetable picture cut-outs (refer to the file named: "Fruit and Veggie Pictures"; print in color), provided
- 36 Velcro 4/3" dots
- Fruit and Veggie Matching Handout (refer to the file named: "F/V Matching"), provided
- My Favorite Fruit or Vegetable Handout (refer to the file named: "My Favorite F/V"), provided
- Colored pencils/crayons
- 18 pieces of 9" x 12" or green and/or red construction paper, if budget allows

a fruit that is yellow? (Allow students to answer. Examples of potential answers include bananas, pineapples, lemons, and dragon fruit.) *Good job! It's important to eat fruits and veggies of all different colors to get a wider variety of the nutrients you need for good health. Not every fruit and vegetable has the same nutrients, so when you eat an orange, which is orange, you don't get all of the same nutrients as when you eat blueberries, which are blue. That's why we should eat fruits and veggies of all different colors! Now that we know why fruits and veggies are good for us, let's learn about where they come from!*

Fruits and veggies come from different parts of plants! Can anybody name the parts of a plant? (Allow students to answer.) *There are four main parts of plants*, (point to the "My Fruit and Veggie Plant" poster) *the flower, the stem, the leaves, and the roots. Two other plant parts that we sometimes eat are the plant's fruit and seeds. Not to be confused with the Fruits Group, the fruit of the plant is the part that protects the seeds. Examples of a plant's fruit are peppers, cucumbers and apples. When we think of the food groups, all foods in the Fruits Group carry seeds, BUT only some Vegetables have seeds. Can anyone think of a vegetable that has seeds?* (Allow students to answer. Potential answers include: peppers, avocados, cucumbers, pumpkins, tomatoes, zucchini, and squash.) *This is a picture of zucchini* (show the students the picture card of zucchini and attach it to the proper section of the "My Fruit and Veggie Plant" poster board). *It is a vegetable that has seeds. Because it has seeds, it is the fruit of the zucchini plant.*

This vegetable is a sweet pea. Sweet peas are seeds. (Show the students the picture card of the peas and attach it to the proper section of the "My Fruit and Veggie Plant" poster. Repeat this process for each of the following items).

This vegetable is broccoli. Broccoli is the plants flower. (Show the students the picture card of broccoli and attach it to the proper section of the "My Fruit and Veggie Plant" poster).

This vegetable is a red pepper. Red peppers have seeds inside and is the fruit of the plant. (Show the students the picture card of a red pepper and attach it to the proper section of the "My Fruit and Veggie Plant" poster).

This vegetable is celery. Celery is a stem (Show the students the picture card of celery and attach it to the proper section of the "My Fruit and Veggie Plant" poster).

This vegetable is a carrot and it grows in the ground. Carrots are roots (Show the students the picture card of carrots and attach it to the proper section of the "My Fruit and Veggie Plant" poster).

This vegetable is lettuce. Lettuce is a leaf. (Show the students the picture card of lettuce and attach it to the proper section of the "My Fruit and Veggie Plant" poster).

I have lots of other pictures of fruits and vegetables. I am going to show you one at a time. If you know the name of the fruit or vegetable, raise your hand. If I call on you, tell us the name of the food shown in the picture. Let's start. (If the student you call on does not answer correctly, ask another student to help identify the picture of the food you are showing them.)

Now, we're going to learn the part of the plant from which each of these foods comes. I will give each of you a picture of a fruit or vegetable. When I call on you, come up and stand next to me and show the class your picture. Tell the class the name of the food that you have and whether it is a flower, fruit, stem, leaf, root or seed (point to each section on the "My Fruit and Veggie Plant" poster as you review the parts of a plant.) *After we figure out where it goes, you will attach your picture to the poster.*

1. This fruit is yellow, grows on trees, and are monkeys' favorite snack! Who can name this fruit? *(Answer: Banana)*
2. This vegetable is bright red, and it is one of the sweetest peppers of all. Who can name this vegetable? *(Answer: Red bell pepper)*
3. This vegetable is bright orange on the inside, and it grows underground. Who can name this vegetable? *(Answer: Sweet potato)*
4. This vegetable is green, looks like little trees, and many people put cheese on it when they have it for dinner. Who can name this vegetable? *(Answer: Broccoli)*
5. This vegetable is round and red on the outside, but white on the inside. It grows under the ground. Who can name this vegetable? *(Answer: Radish)*
6. This vegetable is long and dark green. Its head almost looks like a paint brush! Who can name this vegetable? *(Answer: Asparagus)*
7. This vegetable grows in the ground. It looks a lot like a radish from the outside, but inside it is dark red. Who can name this vegetable? *(Answer: Beet)*
8. This vegetable is leafy and dark green. You can eat it raw as part of a tasty salad or eat it cooked. The first letter of this vegetable is "S". Who can name this vegetable? *(Answer: Spinach)*
9. This fruit is round, sweet, and juicy! It is one of the most common fruits used to make juice. Who can name this fruit? *(Answer: Orange)*
10. This vegetable is small and yellow. The pieces of this vegetable grow on a cob. Sometimes we pop it to make a fun snack. Who can name this vegetable? *(Answer: Corn)*
11. This vegetable grows in the ground and might be confused with a potato. It is brown on the outside and off-white on the inside. Who can name this vegetable? (Answer: Cassava or Yucca)
12. This vegetable is like shaped like broccoli. Most people eat the white color of this vegetable, but it can also be orange, green, and purple! Who can name this vegetable? *(Answer: Cauliflower)*
13. This vegetable is long, skinny, and dark pink in color. It has a tart flavor and is commonly used to make pies and other desserts! Who can name this vegetable? *(Answer: Rhubarb)*
14. This vegetable is round in shape and has many leafy layers. This vegetable can be green or purple, and is it used to make Cole slaw or added to soups and stews. Who can name this vegetable? *(Answer: Cabbage)*

Remember, all fruits come from the fruit part of the plant, so you would put them under the fruit section of the poster. Some vegetables come from the fruit part of the plant too. If your food picture looks like leaves, put it next to the leaves section of the poster. If it looks like the stem of a plant, put it by the stem section of the poster. Vegetables that grow underground and have leaves on top should be put near the root section of the poster, and those that look like seeds should be put near the seeds section of the poster. If you're not sure where your food picture belongs, we will help you. Are you ready? Let's start! (Call on one child at a time until all of the pictures have been attached to the correct section of the poster. If the child is unsure about the plant part to which his picture belongs, give him some

hints, ask him to think about which part of the plant it most resembles, or ask his or hers classmates to help.)

FLOWERS	STEMS	SEEDS	LEAVES	ROOTS	FRUITS
Broccoli	Asparagus	Sweet Peas	Lettuce	Carrot	Zucchini
Cauliflower	Rhubarb	Corn	Spinach	Sweet potato	Banana
			Cabbage	Radish	Red pepper
				Beet	Orange
				Yucca	

Good job! Distribute the "Fruit and Veggie Matching Worksheet", and coloring pencils/crayons.

Now, we're going to do a fun activity! Look at the worksheet I gave you. (Hold the "Fruit and Veggie Matching Worksheet" for the students to see). ***The left side of the worksheet has pictures of vegetables and a fruit. Let's start at the top and name these foods – carrot, celery, spinach, cauliflower, corn and an apple. The right side has pictures of the parts of a plant. Let's review the parts of a plant starting with the picture at the top of the page – a flower, a fruit, a leaf, a stem, a root and a seed. Draw a line from each fruit or vegetable to the part of the plant from which it comes.*** (Allow students time to complete worksheet). ***Let's review your answers starting with the seeds. Can anyone find a fruit or vegetable on the left column that is a seed?*** (Allow students to answer; corn). ***Great job! Okay, let's move onto roots. Can anyone find a fruit or vegetable that is a root?*** (Allow students to answer; carrot). ***Okay great! Continue on with the stem*** (celery), ***leaf,*** (spinach), ***flower*** (cauliflower), ***and fruit*** (orange). ***Great job! Now, I want you to look at your pictures and notice the colors of the fruits and vegetables on your worksheet. What color is your carrot? Celery? Spinach? Cauliflower? Corn? Apple? Remember, it is important to eat fruits and vegetables of a variety of colors to get a wider variety of the nutrients you need for good health! Can anyone remember what fruits and veggies have that make us healthy? Great. Vitamins, minerals and fiber!***

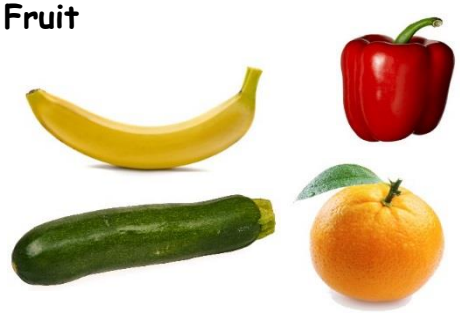
(Distribute the "My Favorite Fruit and Vegetable" worksheet.) ***The next thing we're going to do is really fun! Think of your favorite fruit or vegetable. Think about what color it is, what shape it is, what part of plant it comes from and what it tastes like. Now, I want you to draw your favorite fruit or vegetable on the sheet on the worksheet I gave you.*** (Hold up the "My Favorite Fruit or Vegetable" worksheet.) ***When you are finished drawing, turn to your neighbor, show them your favorite fruit/vegetable. Tell them the name of your fruit or vegetable, the part of the plant it comes from, and why you like it! If you have any questions, ask me and I will help you!***

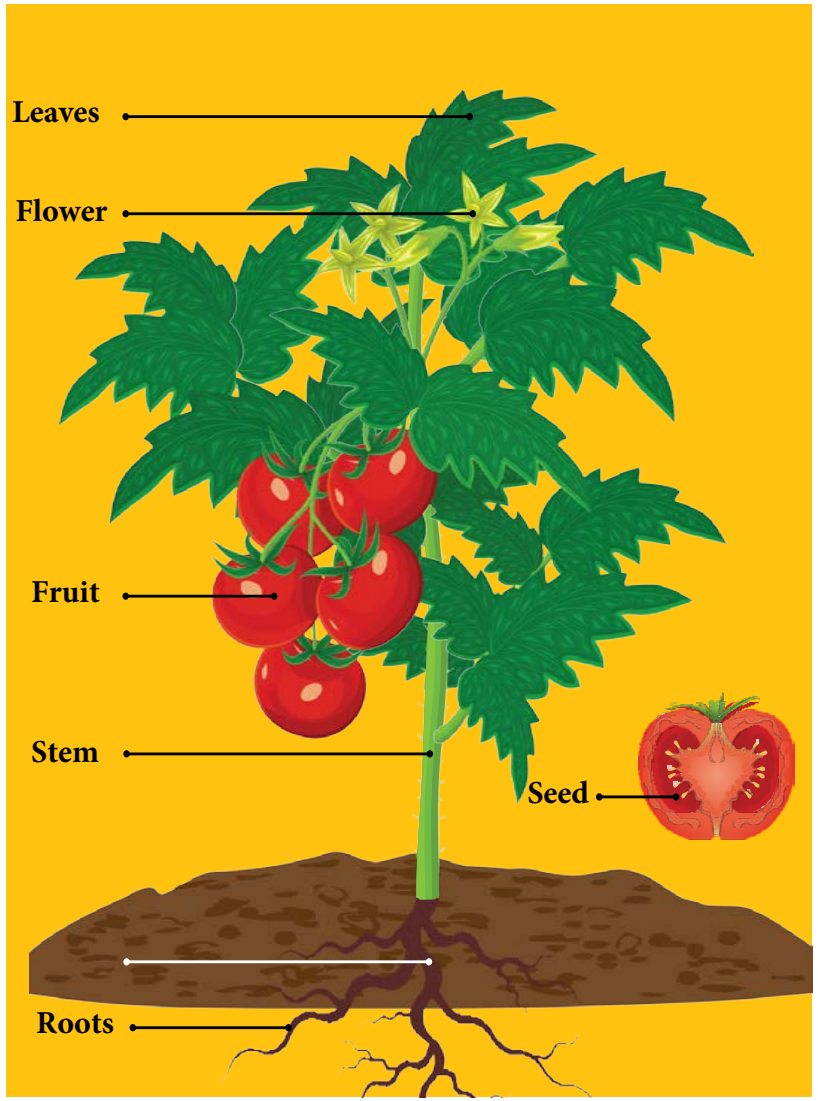
(Allow students a few minutes to do this activity, and then ask the following question.) ***Who has a drawing that they want to share with the class?*** (Allow volunteers to share.)

Leaves

Flowers

Fruit





Stems

Seeds

Roots

Fruit and Veggie Pictures

Seed

Leaf

Root

Fruit

Fruit and Veggie Pictures

Stem

Root

Root

Fruit

Fruit and Veggie Pictures

Fruit

Stem

Leaf

Seed

Fruit and Veggie Pictures

Root

Fruit

Root

Stem

Fruit and Veggie Pictures

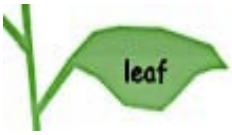
Leaf

Fruit

Flower

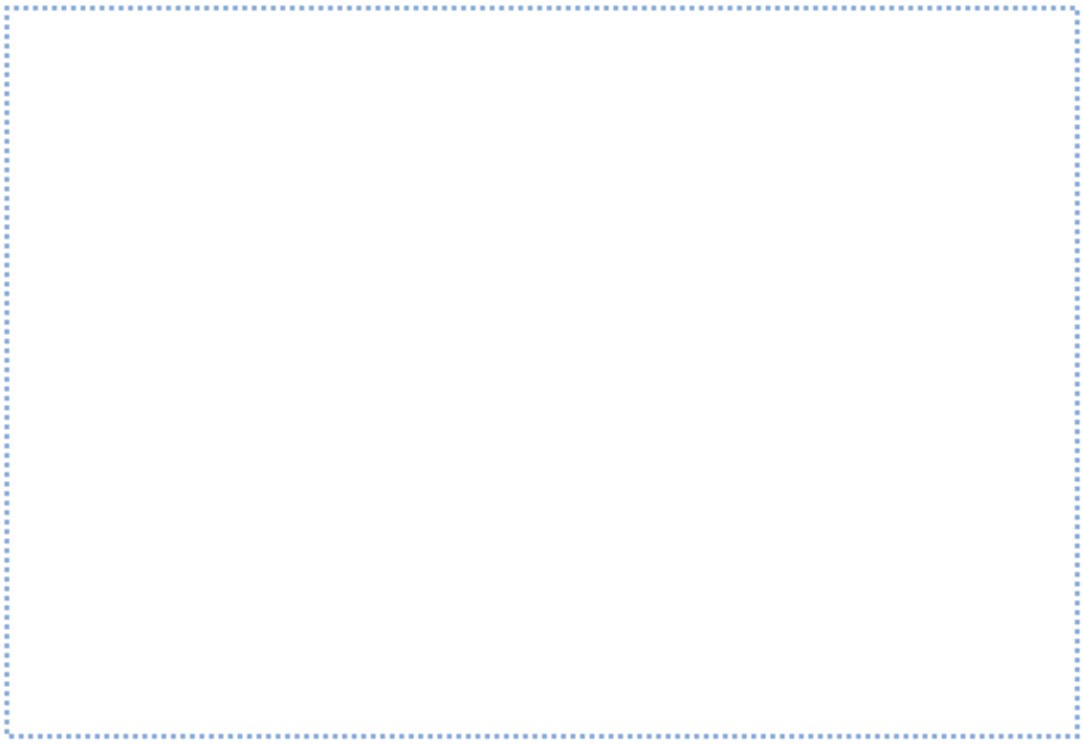
Flower

F/V Matching

My Favorite Fruit or Vegetable

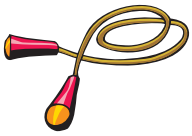
By: _____



This fruit or vegetable is a _____. (Circle one)

Root Seed Stem Leaf Flower Fruit

The USDA and the University of Florida IFAS Extension are equal opportunity providers and employers. The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact 1-866-762-2237. TTY/TTD/FRS dial 711. This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP.



Physical Activity: Fruit and Veggie Stomp

PRIOR TO ACTIVITY

On the computer, pull a high tempo song.

Example:

Queen- We will Rock You (Instrumental Drum)

http://www.youtube.com/watch?v=qJz8AT_Art4

ACTIVITY INTRODUCTION

Today we are going to learn a song about fruits and vegetables. This song talks about how important it is to eat fruits and vegetables because fruits and vegetables make us healthy. They also help our eyes so we can see, and when we fall down and get cuts or scrapes, they help us heal. I want everyone to pay attention while I sing the song and do the movements so that you can do it on your own.

ACTIVITY DIRECTIONS

Have the students gather in an open space. *I hope you're ready for a great workout today! Our physical activity is going to be the Fruit and Veggie Stomp! Listen to the instructions carefully. This activity includes several different movements, and all of them are related to fruits and vegetables and the parts of a plant to which they belong.* (Describe and demonstrate, one at a time, each of the movements listed below. A video demonstration of each movement created for the "Fruit and Veggie Stomp" can be found on the CD included with this curriculum. The name of the file is called "Fruit and Veggie Stomp Demo".)

Banana Hop: Bananas are fruits that grow from the flowers of trees. For this movement, you will jump as high as you can, like you are trying to pull a banana off of a tree.

Lettuce Eat: Lettuce is a vegetable that grows as leaves of plants. For this movement, you will pretend to eat.

Celery Split: Celery is a vegetable that grows as the stem of plants. For this movement, you will hold both arms out like you're holding a long piece of celery between them. Then you will pull your arms down and one knee up to pretend that you are splitting the piece of celery in half.

Carrot Crank: Carrots are vegetables that grow under the ground as roots! For this movement, you will bend down to the ground and pretend to pull out a carrot from the soil where it grows.

Seed Squeeze: Like the leaf, stem, fruit and roots, the seeds of some plants are also edible. For this movement, you will pretend to be a small round seed by squeezing into a small ball as best as you can while standing.

Corn Pop: Corn is a vegetable that comes from the seeds of a corn plant. For this movement, you will squat down and form a small ball with your body. Then when I say "pop", you will pop open by jumping and spreading your arms as wide as you can.

In addition to doing the movements, you will need to repeat what I say while you're doing the activity. For example, when I say, "Banana", you say "Hop". Banana – "HOP", Banana – "HOP"! Great job, let's get started!

When I say Banana, you say HOP! Banana, "HOP"! *Banana,* "HOP"! *Jump high, high, up to the sky! When I say Banana, you say* HOP! *Banana,* "HOP"! *Banana,* "HOP"! *I can't hear you!!! When I say Banana, you say HOP; Banana* "HOP"! *Banana* "HOP"!

When I say Lettuce, you say, Eat! Lettuce, "Eat"! *Lettuce,* "Eat"! *Eat, eat, eat those leaves from that plant! When I say* "Lettuce", *you say* "Eat". *Lettuce,* "Eat"! *Lettuce,* "Eat"!

When I say Celery, you say, Snap! Celery, "Snap"! *Celery,* "Snap"! *Split those celery sticks in half! When I say Celery, you say, Snap! Celery*, "Snap"! *Celery,* "Snap"!

When I say Carrot, you say Crank! Carrot, "Crank"! *Carrot,* "Crank"! *Crank those carrots out of the ground! When I say Carrot, you say Crank. Carrot,* "Crank"! *Carrot,* "Crank"!

When I say Seed, you say, Squeeze! Seed, "Squeeze"! *Seed,* "Squeeze"! *Make those Seeds as small as you can! When I say Seed, you say, Squeeze! Seed,* "Squeeze"! *Seed,* "Squeeze"!

When I say Corn, you say Pop! Corn, "Pop"! *Corn,* "Pop"! *Pop that corn right off that stalk. When I say Corn, you say Pop. Corn,* "Pop"! *Corn,* "Pop"!

Snack: *Sunshine Fruit and Veggie Salad*

NUTRITION ANALYSIS PER SERVING

Nutrition Facts

Serving Size 1 Cup

Amount Per Serving	
Calories 40	
	% Daily Values*
Total Fat 1g	**2%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 1mg	**0%**
Potassium 63mg	**2%**
Sodium 180mg	**8%**
Total Carbohydrate 5g	**2%**
Dietary Fiber 1g	**4%**
Sugars 3g	
Protein 2g	**4%**

Vitamin A 34% • Vitamin C 11%

Folate 2%

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

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

INGREDIENTS

- 5 oz Spring Mix (Mixed lettuce salad)
- ½ cup canned, drained, mandarin oranges
- ½ cup carrot matchsticks
- ½ cup sliced celery
- ½ cup broccoli florets
- ½ cup canned, drained, sweet peas
- ¼ cup reduced fat Feta cheese
- ½ cup poppy seed dressing

UTENSILS AND SUPPLIES

- Knife
- Cutting board
- 1 large mixing bowl (5 quart)
- ¼ cup dry measuring cup
- ½ cup dry measuring cup

PRELIMINARY DIRECTIONS

1. Wash and chop (or slice) the celery.
2. Wash and cut the broccoli into small florets (or bite size p
3. Drain the mandarin oranges and the sweet peas.

IN-CLASS DIRECTIONS

1. Measure each ingredient and add to a large bowl. Mix all ingredients.
2. Serve ½ cup portions in a small, 6" bowl or on a 6" plate with fork.

(continued next page)

NOTE TO EDUCATOR

This snack contains fruits and vegetables from each plant part. While preparing and/or distributing the snack, ask them to tell you the part of the plant from which that food comes (other than the feta cheese and dressing). The spring mix lettuce grows as leaves, the mandarin oranges grow as the plants fruit, the carrots grow as roots, the celery grows as the stem, the broccoli grows as flowers, and the sweet peas grow as seeds.

Raspberry Vinaigrette can be used as an alternative to the poppy seed dressing.

COMMONLY ASKED QUESTIONS

Q: Fruits and vegetables don't look like flowers, so how can they originate from flowers?

A: Fruits and vegetables that contain seeds are not technically flowers; they originate from the maturation of flowers. In other words, flowers "give birth" to seed-containing fruits and vegetables.

Q: Are tomatoes and other non-sweet, seed-containing plant products classified as fruits or vegetables?

A: Fruits and vegetables have many different meanings depending on context. In culinary terms, a fruit is any sweet-tasting plant product and a vegetable is any edible plant product that is not sweet. Botanically, however a fruit is any plant product that contains the seeds of the plant, and a vegetable is any other edible plant product. In botanical terms, a banana, an orange, a red pepper, and a zucchini are all "fruits", and a potato, celery, lettuce, and peas are all "vegetables". For the purpose of this lesson, we will adhere to the culinary descriptions of fruits and vegetables (AKA: refer to sweet-tasting plant products as fruits and non-sweet-tasting plant products as vegetables).

Q: What about cauliflower and broccoli? What part of the plant do they come from?

A: Cauliflower and broccoli are the flowers of plants. They are different than flower-originating fruits and vegetables in that they do not contain seeds. Flower-originating fruits and vegetables, such as oranges, contain seeds, whereas fruits and vegetables that are the flower of the plant, such as broccoli and cauliflower, do not contain the seeds.

Q: Do seedless fruits, such as watermelon and grapes, still originate from the flowers of plants?

A: Yes. All fruits naturally contain seeds; however, seedless fruits are commercially made to produce without seeds. Even though seedless fruits, such as watermelon and grapes, do not contain seeds, they are still classified as fruits and originate from the flowers of plants.

Q:What vitamins and minerals do fruits and vegetables provide?

A:Vitamins contained in fruits and vegetables include vitamin A, vitamin K, vitamin C, folate, and vitamin B6. Mineral contained in fruits and vegetables include potassium, calcium, and iron. Fiber is another important food component contained in a variety of fruits and vegetables. Different colors of fruits and vegetables contain different vitamins and minerals. It is important to eat fruits and vegetables that are dark red, orange, yellow, purple, and green in color to be healthy.

Dear Parent or Caregiver,

Today your child learned about the Fruits and Vegetables groups. We learned that fruits and vegetables have lots of vitamins and minerals. Vitamins and minerals are needed to maintain good health. Fruits and vegetables of different colors contain different vitamins and minerals. That is why eating a variety of fruits and vegetables is important for maintaining good health.

Today, we also learned that all fruits and some vegetables contain seeds come from the fruit of a plant. Vegetables are the roots, stems, leaves, fruit, flower or seeds of a plant. We discussed a variety of fruits and vegetables and learned which ones are roots, stems, leaves, seeds, fruit or flowers. For example, we learned that carrots are roots, celery is a stem, lettuce is a leaf, peas are seeds, broccoli is a flower, and bananas are the plant's fruit.

As parents or caregivers, you play a big part in helping your child develop good eating habits. Children between the ages of 4 to 8 should eat 1 to 1½ cups of fruits and 1½ cups of vegetables every day. There is a recipe for a healthy snack on the back of this letter that may help you get started. The following are suggestions for other ways that you can reinforce today's lesson and help your child eat more fruits and vegetables:

- Ask your child to show you what he/she learned today. We completed a learning activity in which the students identified the parts of plants from which fruits and vegetables come. We also did the "Fruit and Veggie Stomp" to reinforce what we taught and to give your child a fun way to be more active. Ask your child to show you the worksheet they completed and the movements from the "Fruit and Veggie Stomp".
- Let your child help with meal planning. When shopping for fruits and vegetables, ask your child which fruits and vegetables he/she likes and let them help you wash them. Children are more likely to eat the foods they help choose and prepare.
- Introduce new fruits and vegetables every time you go to the grocery store. Children like to eat fruits and vegetables that are familiar to them. Introducing new fruits and vegetables to your child increases the chance that he/she will eat a wider variety of fruits and vegetables.

We hope that this lesson and the activities you do at home will help your child recognize why fruits and vegetables are good for us and that he/she will eat a variety of fruits and vegetables every day. To learn more about fruits and vegetables, visit the USDA MyPlate website: www.ChooseMyPlate.gov.

Sincerely,

LESSON 4

Delicious Dairy

Concept

Foods from the Dairy group provide children with important nutrients such as calcium, which is needed for strong bones and teeth. This lesson introduces children to the foods in the Dairy group and teaches them how much they need and why dairy foods are important for their bodies.

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Youth Understanding MyPlate

Background

The Dairy group is the blue group on the MyPlate symbol. It is important for children to consume the recommended amount of Dairy group foods every day for a healthy body. This group includes milk, yogurt, cheese, pudding and ice cream (1). Dairy group foods provide nutrients such as calcium, vitamin D, potassium and magnesium. These nutrients are important for developing and maintaining strong bones and teeth in young children (2-5). Low-fat and fat-free Dairy group foods provide the health benefits without adding extra fat and calories in the diet. It is important to teach children how much they need and to choose lower fat varieties of Dairy group foods so they can stay within their calorie needs and maintain a healthy body weight.

The recommended amount of Dairy group foods varies depending on a child's age. Children between the ages of 4 and 8 need two and one-half cups per day (6). These intake recommendations can be achieved by consuming fluid milk or by consuming varying amounts of other Dairy group foods. Even though flavored milk, such as chocolate or strawberry milk has added sugar, it is one way to provide calcium to children who do not like white milk. While one cup of milk is easy to measure, knowing how much other Dairy group foods count as 1 cup of milk is more difficult. Each of the following foods counts as 1 cup of Dairy group foods (1):

WHAT COUNTS AS 1 CUP OF DAIRY?	
yogurt	8 ounce container
cottage cheese	⅓ cup
shreddied cheese	⅓ cup
low-fat ice cream	1 ½ cups or 3 scoops
pudding made with milk	1 cup
low-fat milk	1 cup
calcium fortified soymilk	1 cup
frozen yogurt	1 cup
non-processed cheese slices	2 ounces (2 slices)
processed cheese	3 ounces (3 slices)

It is important to note that some foods that have milk in their name are not Dairy group foods. For example, soy milk and almond milk are not Dairy group foods unless they are forti¬fied with calcium and vitamins A and D. In addition, some foods made from milk do not have enough calcium to be included in the Dairy group. These include butter, sour cream, and cream cheese (1).

The Dairy group is included on the MyPlate symbol because milk is a great source of calcium, vitamin D, potassium and magnesium. Calcium is needed by children to make and maintain strong bones and teeth. This mineral is especially important for children because they are growing rapidly at this age. Eating an adequate amount of calcium early in life has been shown to decrease the risk for osteoporosis (os-tee-oh-puh-ROH-sis) with advancing age. Osteoporosis is a disease in which the bones become brittle, which makes them more susceptible to breakage (3). Vitamin D promotes cal¬cium absorption and helps the body maintain the right amount of calcium in the blood (4). Milk, soy milk, almond milk, breakfast cereals, and yogurt that have been fortified with vitamin D are excellent sources of this nutrient (1). In addition, getting 5-30 minutes of sun exposure without sunscreen twice per week can lead to sufficient vitamin D production (4). Like calcium, potassium and magnesium are minerals that are needed by the body. Potassium is important for controlling blood pressure and allowing nerves and muscles to communicate (5). Magnesium is needed for over 300 reactions in the body, including maintaining strong bones, supporting a healthy immune system, and controlling blood pressure (6). While Dairy group foods provide other nutrients, these four are the most noteworthy.

When encouraging children to consume Dairy group foods, focus on low-fat and fat-free milk products. Saturated fat is naturally present in whole milk and other Dairy group foods made with whole milk. Saturated fat is a type of fat that should be limited. Choosing low-fat and fat-free Dairy group foods is a good way to reduce calorie and fat intake. As the incidence of childhood obesity continues to rise, finding ways to cut excess fat and calories from the diet is increasingly important.

Although a large portion of the population can eat and drink Dairy group foods without experiencing any problems, some people must limit or avoid consumption of Dairy group foods because of milk allergies and/or lactose intolerance. It is essential to understand the differences between these conditions and what can be done to ensure proper intake of calcium in those who have either or both of these problems. A milk allergy is caused when the body has a negative reaction to the protein found in Dairy group foods. The allergic response can range from minor symptoms, such as a rash, to more deadly symptoms, such as shock or a blockage of the airway. Before encouraging children to try Dairy group foods, be sure to find out if there are any students in the

class who have a milk allergy. If a child has a milk allergy, urge them to consume other foods rich in calcium, such as100% fruit juice fortified with calcium, calcium fortified soymilk (providing they don't have an allergy to soy), and certain vegetables like spinach, broccoli, and bok choy in place of Dairy group foods. Lactose intolerance, on the other hand, is not as harmful as a milk allergy. Individuals with lactose intolerance cannot digest lactose, a natural sugar found in milk. This leads to cramping, bloating, and gas (7). Unlike children with a milk allergy, children who are lactose intolerant are able to eat milk products low in lactose or free of lactose such as yogurt, cheese and lactose-free milk (8).

In summary, the amount of Dairy group foods needed every day to help ensure an adequate intake of nutrients such as calcium, vitamin D, potassium and magnesium varies based on age. Children between the ages of 4 and 8 need two and one-half cups per day, while children between the ages of 9 and 13 need three cups per day (2). Choosing low-fat and fat-free Dairy group foods is a great way to get the nutritional ben¬efits associated with these products without the extra fat and calories. Dairy group foods may not be an option for those who have a milk allergy, so it is important to promote other foods rich in calcium for children who have a milk allergy. Children who are lactose intolerant can choose foods low in lactose or drink lactose-free milk.

*For a more complete list of foods, see Appendix 14 of the 2010 Dietary Guidelines for Americans (9).

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2nd Grade Lesson

LEARNING OBJECTIVES

The students will state that:

- state that foods from the Dairy group contain calcium.
- recognize that calcium is important for healthy bones and teeth.
- recognize that it is best to choose low-fat or fat-free foods from the Dairy group.

BEHAVIORAL OBJECTIVE

The students will:

- consume 2 ½ cups a day of Dairy group foods.
- choose low-fat or fat-free foods from the Dairy group.

RECOMMENDED BOOK

The Delicious Dairy Group, from Capstone Press' MyPlate and Healthy Eating Series. This book gives a nice introduction of the Dairy group. It is 24 pages and is recommended for children ages 5–9.

Link to order the book:

http://www.neatsolutions.com/ProductsBooks/MyPlateandHealthyEatingSeries.html

FLORIDA STANDARDS

LEARNING ACTIVITY

LA.2.2.2.2 The student will use explicitly stated information to answer a question.

LACC.2.RL.3.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

PHYSICAL EDUCATION

HE.2.P.1.1 Demonstrate health behaviors to maintain or improve personal health.

HE.2.P.1.2 Show behaviors that avoid or reduce health risks.

DA.2.S.2.1 Demonstrate focus and concentration while listening to instructions and observing others' movement.

DA.2.S.2.2 Demonstrate simple dance sequences to show memorization and presentation skills.

DA.2.S.3.2 Perform bending and reaching exercises to increase strength, stamina, flexibility, and range of motion.

Learning Activity

MATERIALS

- Adventures in Dairy Land story book
- Dairy food pictures
- Blue construction paper
- "Good" and "Best" cards
- Adhesive magnet strips/tape/ other adhesive

ACTIVITY INSTRUCTIONS

- Make 1 copy of the dairy food pictures and "Good" and "Best" cards.
- Cut out each dairy food picture along the lines. Glue each one on to pages of blue construction paper. A few cards can fit on one page of blue construction paper. Cut along each card so that there is a blue border around each one. Copy this procedure for the "Good" and "Best" cards as well.
- Attach a magnet strip (or any adhesive that will stick to a whiteboard/ chalkboard) to each dairy food card and the "Good" and "Best" cards.
- Read the story so that the pictures are visible to the class.
- After reading the story and discussing it, distribute one dairy food card to each child.

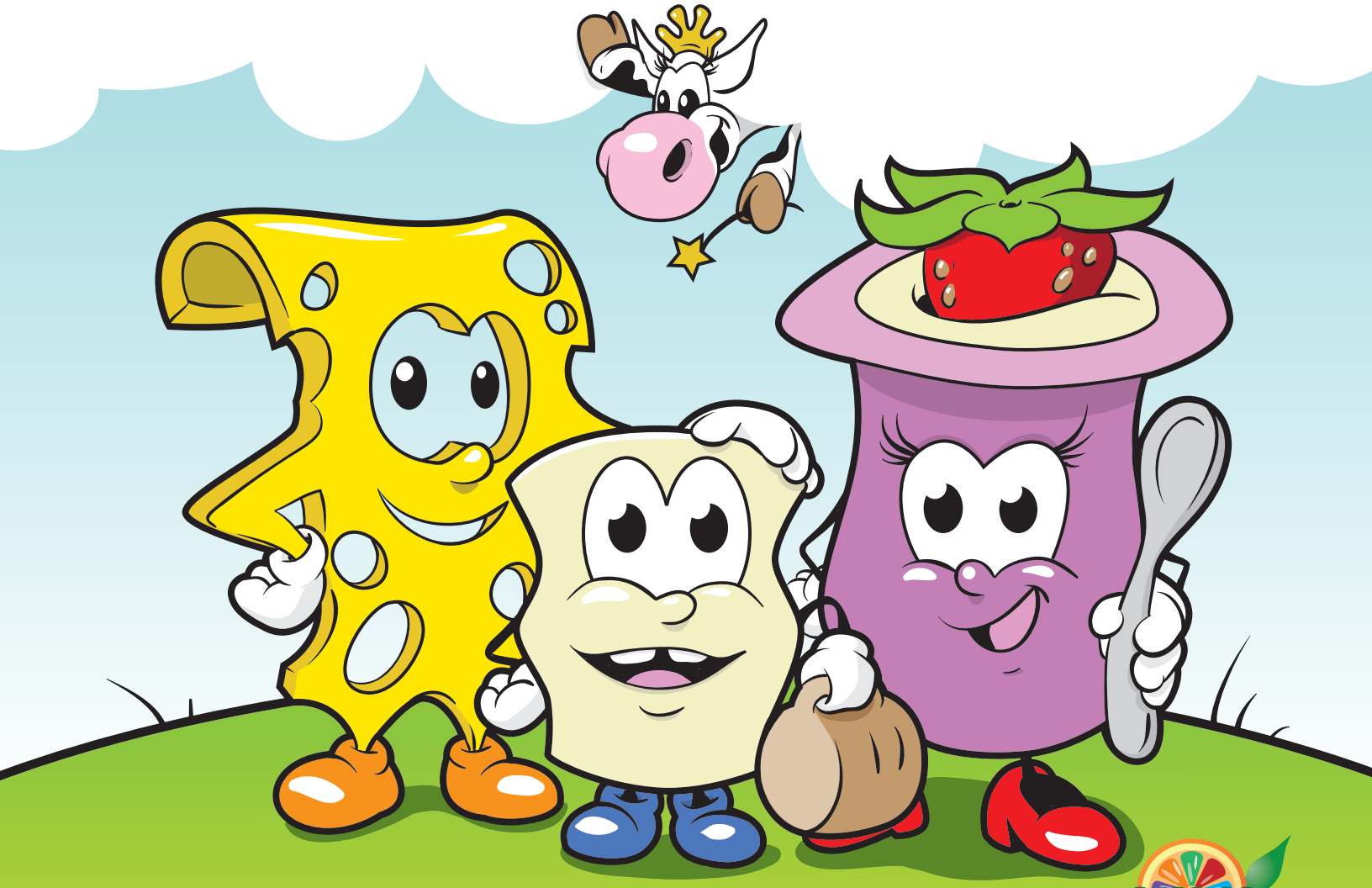
Gather the students together and instruct them to sit on the floor facing you. Sit in a chair or on the floor facing the students. ***Today, we are going to read a story about the Dairy group, called Adventures in Dairy Land. Who can tell me the color of the Dairy group? Raise your hand if you know.*** Call on a student. The correct answer is the blue group. ***Raise your hand if you can tell me the name of a Dairy group food?*** Call on students. Correct answers include: milk, yogurt, cheese, ice cream, pudding, and calcium-fortified soy milk. ***Dairy group foods are important for our bones and teeth. This story will help you remember some of the foods in the Dairy group, why you need dairy foods, and the amount of dairy foods to eat.*** Hold up story book so they can see the cover. ***OK, now listen closely as I read Adventures in Dairy Land.*** (Read story.)

Now that we have read the story, I am going to ask you a few questions about the Dairy group. Think back to the beginning of the story. What color is Dairy Land? Allow students to answer: blue. ***Very good. On the MyPlate symbol, the Dairy group is also blue. Who can name some foods that belong to the Dairy group?*** Allow students to answer: milk, cheese, yogurt, pudding, ice cream. ***Think about Milton Milk from the story—remember he wanted to get bigger so he could give boys and girls like you the amount of milk you need every day. How many cups of Dairy group foods do you need every day? Allow students to answer: 2 ½ cups. Now, think about Charlie Cheese. What did he lose that is so important?*** Allow students to answer: calcium. ***Can anyone tell me what parts of our bodies need calcium from Dairy group foods to be strong and healthy?*** Allow students to answer: ***Dairy group foods help keep our bones and teeth strong and healthy. Good! Calcium will help you to develop strong bones and teeth.***

Now, I'm going to talk to you about Berry Yogurt. Who can tell me what happened to Berry in the story? Allow students to answer: ***Berry was regular yogurt, but wanted to be low-fat yogurt. Good. Berry wanted to be low-fat yogurt because it is a healthier choice than regular yogurt. In the Dairy group, some foods are considered low-fat or fat-free. Remember that Berry said "all dairy foods are good choices, but low-fat and fat-free dairy foods are the best choices." This means that all dairy foods have calcium and other nutrients that help your body build strong bones and teeth. Low-fat and fat-free dairy foods have the same amount of calcium as regular dairy foods, but they contain less fat, which makes it easier for your body to stay healthy. It's best to choose dairy foods that say low-fat or fat-free on them.*** Stress to the students that all Dairy group foods are good choices, but low-fat and fat-free options are the best choices.

Now, we are going to do an activity that will help you remember that some Dairy foods are good choices, while others are the best choices. Give each child a dairy food card. Display the "Good" and "Best" signs on the front wall of the room using magnets. *I have placed two signs at the front of the room. One says "Good" and the other says "Best." Each of you has a card with a dairy food on the front. You must decide if your dairy food is a good choice or a best choice. One by one, you will come to the front of the room and place your dairy food under the correct sign. If it is a good dairy food choice, you will put your card under "Good." If it is a best dairy food choice, you will put your card under "Best." Remember, the best dairy food choices are dairy foods that are low-fat or fat-free.* Call on one student at a time to come to the front of the room. If a student is struggling to decide which category to place his/her card under, prompt the class. Review which dairy foods fall in each category after every student has had a turn. Stress that the dairy foods placed under "Best" are there because they are either low-fat or fat-free.

ADVENTURES IN DAIRY LAND



Written by Jenna Norris
Illustrated by Mark A Gilchrist

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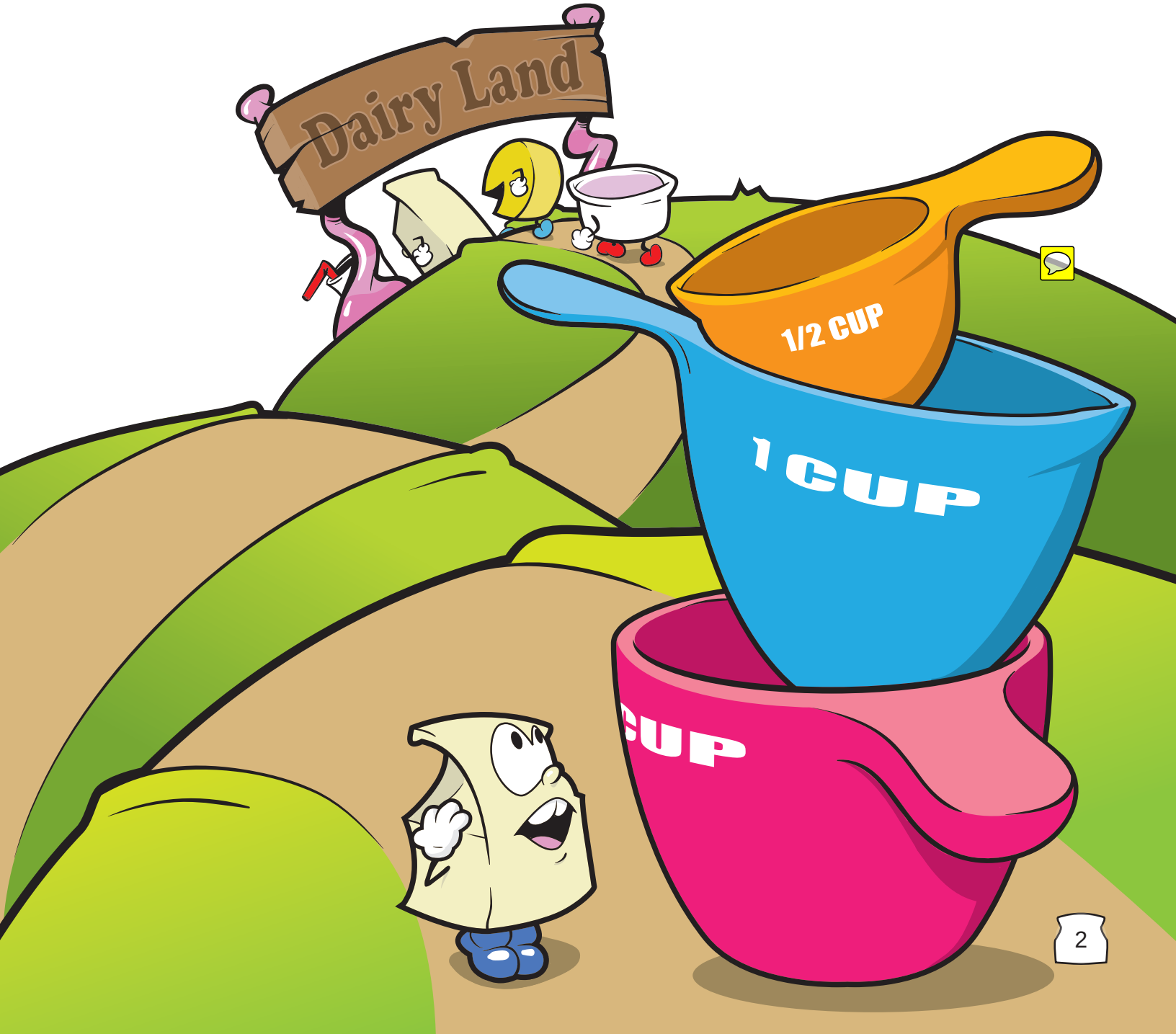
Youth Understanding MyPlate

There once was a healthy and nutritious world called Planet MyPlate. Planet MyPlate was home to Protein Place, Fruit and Vegetable Country, Grain Nation, and last but not least, Dairy Land.

Dairy Land was a beautiful place where many different kinds of milks, cheeses, yogurts, ice creams, and puddings lived together in harmony. But not all of the dairy foods in Dairy Land were happy.

Milton Milk was the smallest fat-free milk in all of Dairy Land, and he was not happy about it. Kids ages 4-8 need 2 ½ cups of dairy foods every day, but Milton was much smaller than this.

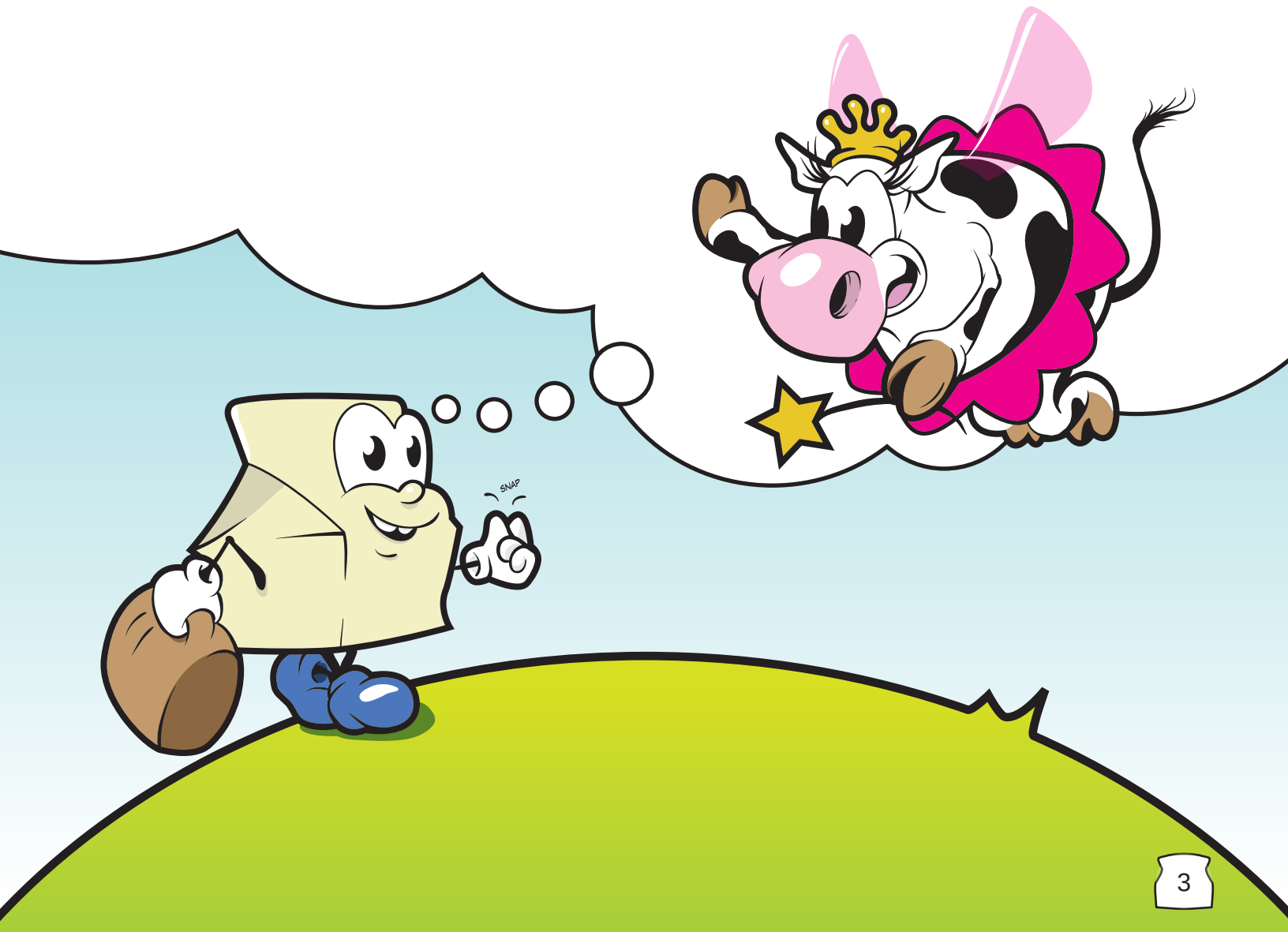


One day, Milton decided that he was going to do something to fix his size. He remembered a story he had heard when he was much younger about the Dairy Fairy. The Dairy Fairy lived far away and granted wishes to dairy foods that traveled to see her.

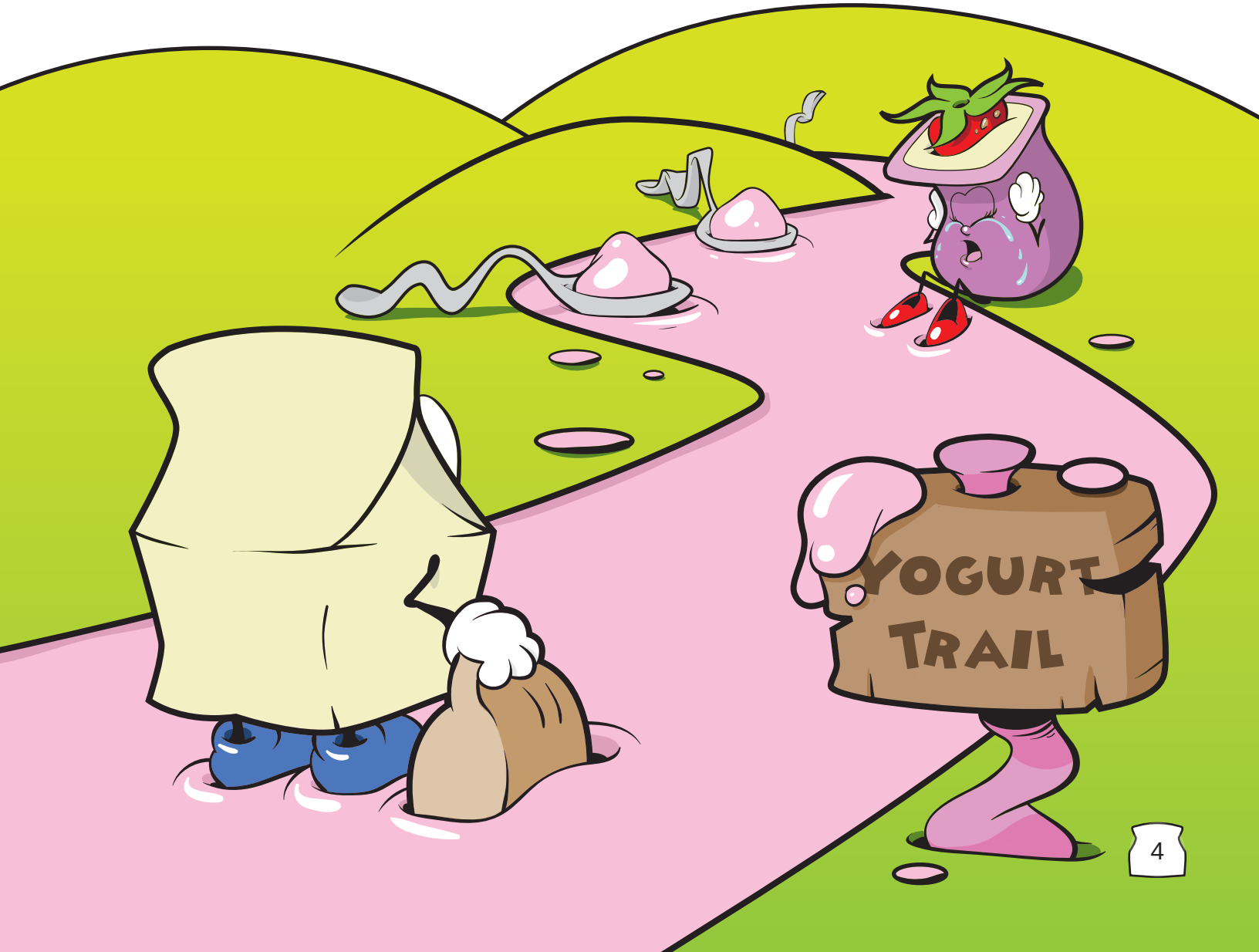
Milton wondered if the story was really true. Could the Dairy Fairy make him bigger?

“Well,” he said out loud, “there’s only one way to find out!”

With that, Milton packed his things and set out to find the Dairy Fairy.



Milton had not been traveling long when he stumbled upon Yogurt Trail. He noticed a container of yogurt in the distance. She looked very sad and was crying. Milton decided to stop and ask what was wrong.



“I’m Milton. What’s your name?”

“I’m Berry. Berry Yogurt,” she said.

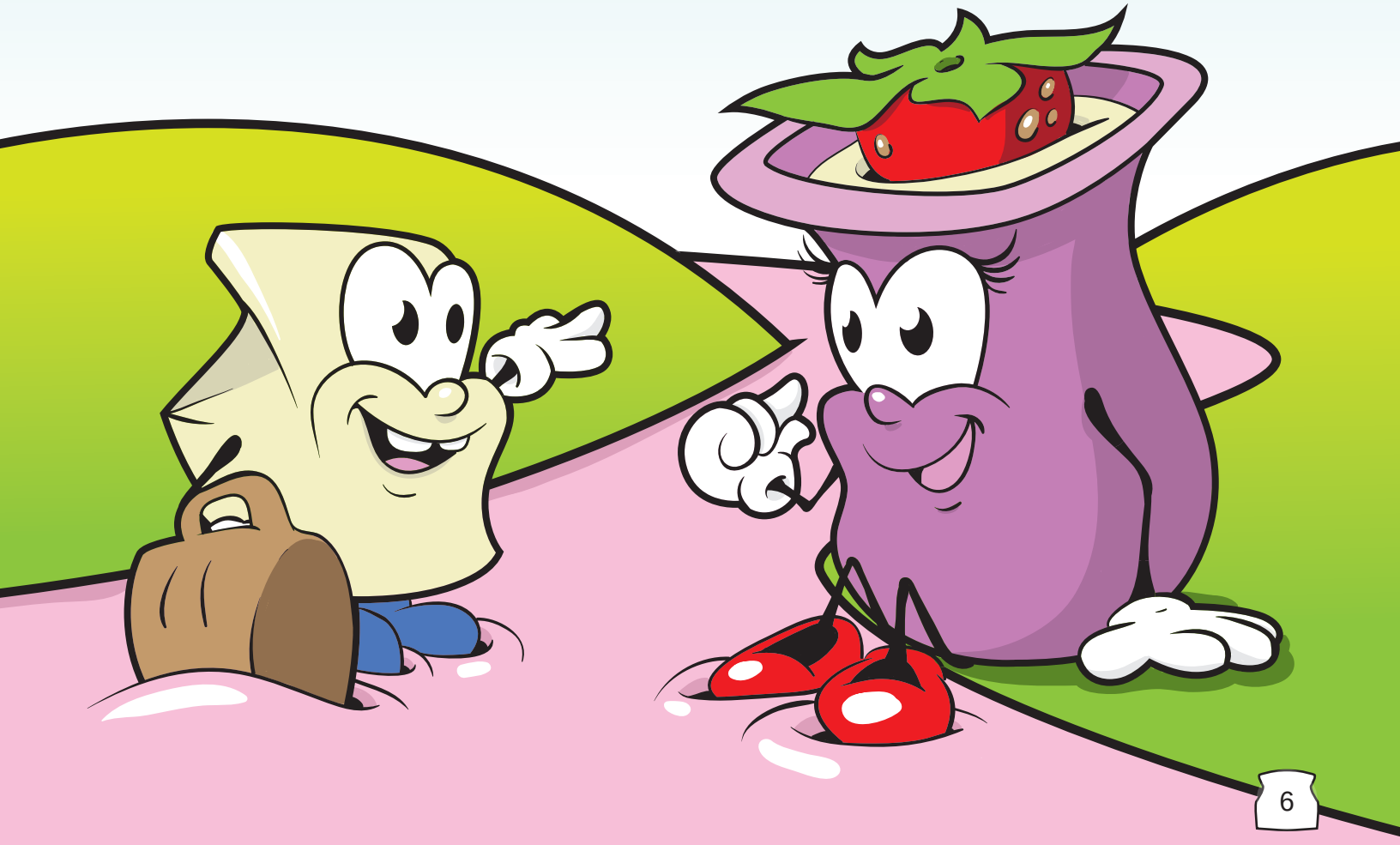
“I was just passing through and saw you crying. What’s wrong?” asked Milton.

“All dairy foods are good choices, but low-fat and fat-free dairy foods are the best choices,” Berry explained. “I’m regular yogurt. I very much want to be low-fat yogurt, but I just don’t know how to be.”

Suddenly, Milton had a brilliant plan.

"I'm traveling to see the Dairy Fairy," said Milton. "She's going to make me bigger! I'd really like some company. Maybe she can help you become low-fat yogurt!"

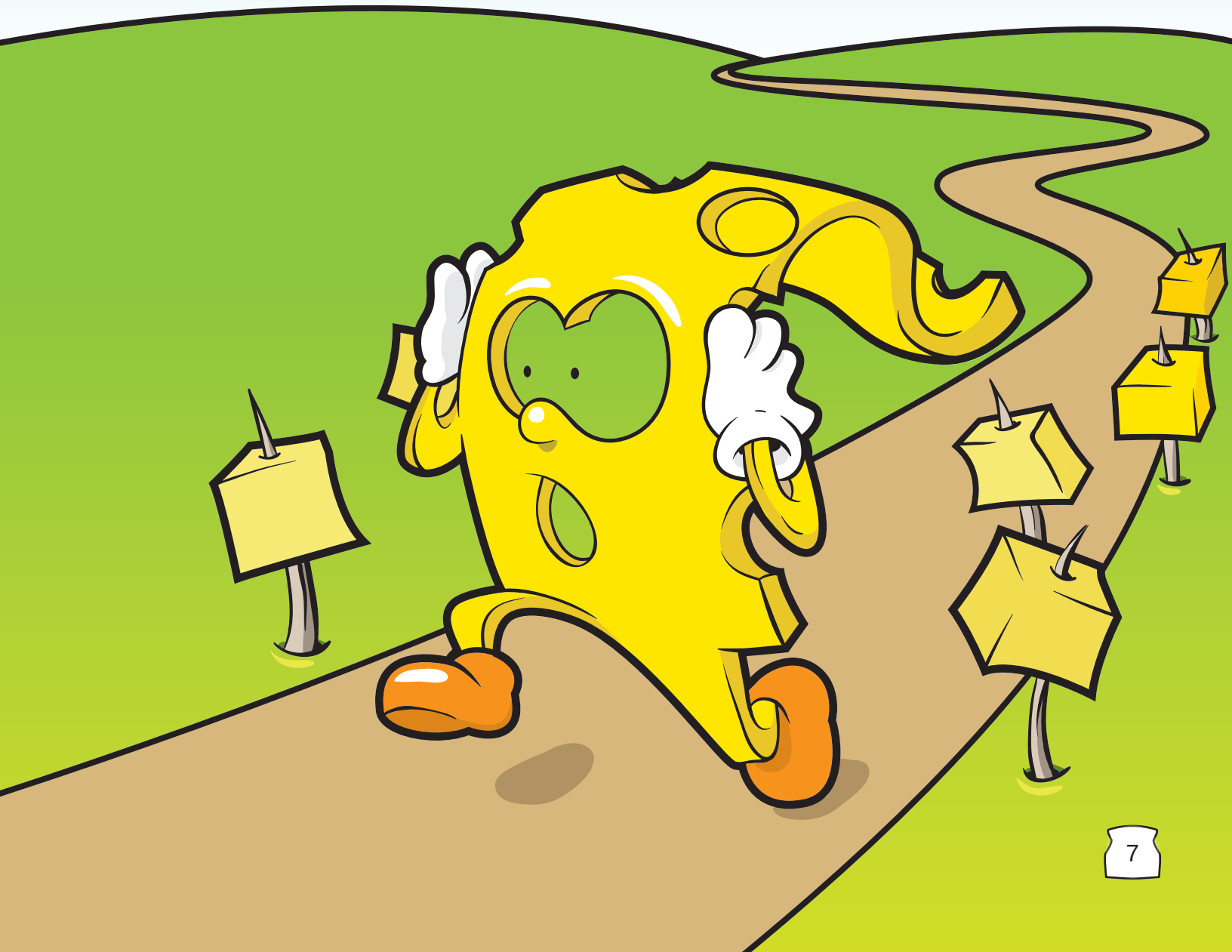
With that, the new friends set off together on their journey.



Milton and Berry soon found themselves in Cheesy Fields. They couldn't see anyone, but they could hear someone yelling, "My calcium! My calcium! Where is it?"

Finally, a very worried piece of cheese ran to them in a panic.

"Have you seen my calcium?" he cried. "It was just here. I laid it down to take a nap and now it's gone. Have you seen it?"

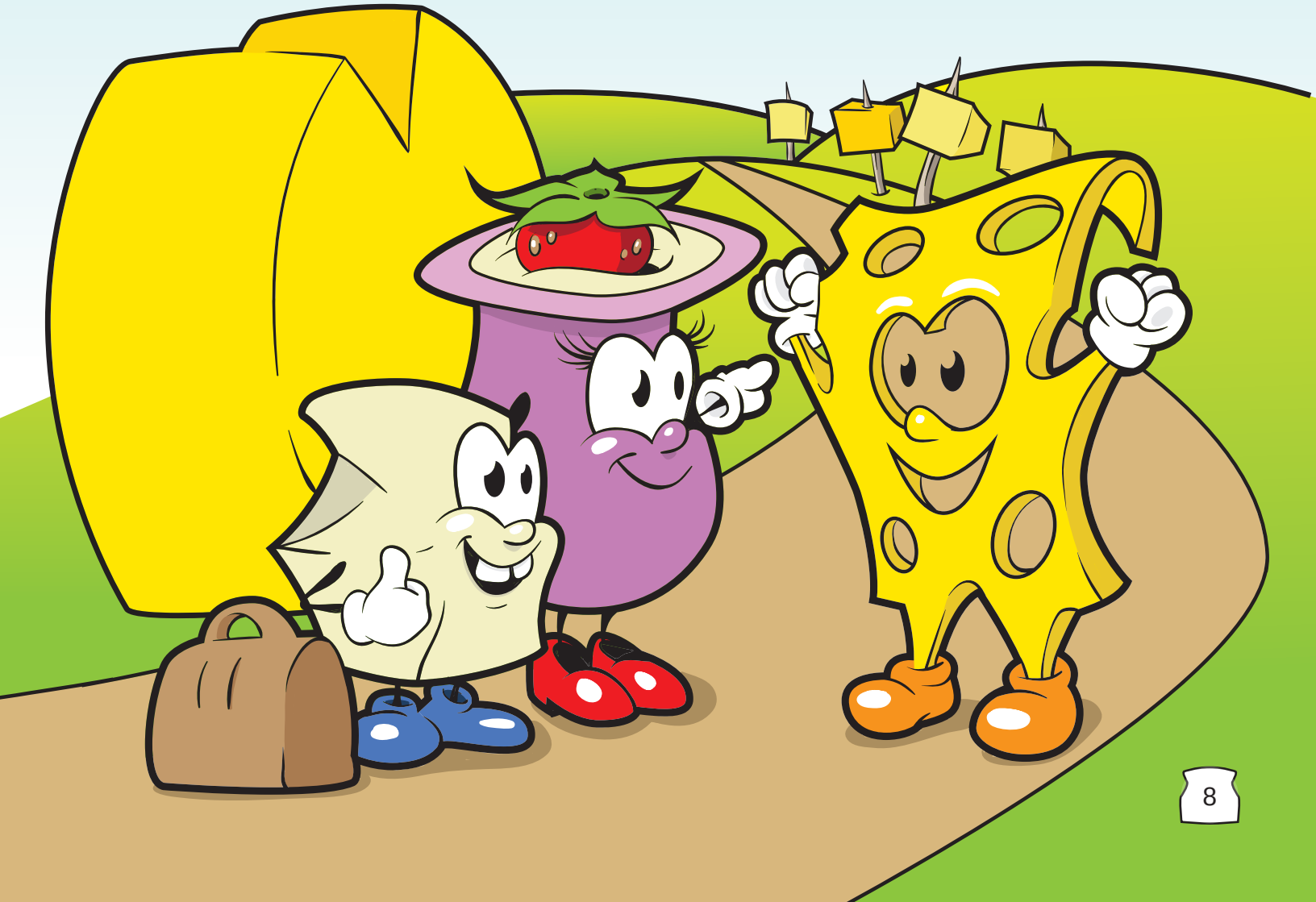


“We’re sorry, but no, we haven’t seen your calcium. What’s your name?” asked Berry.

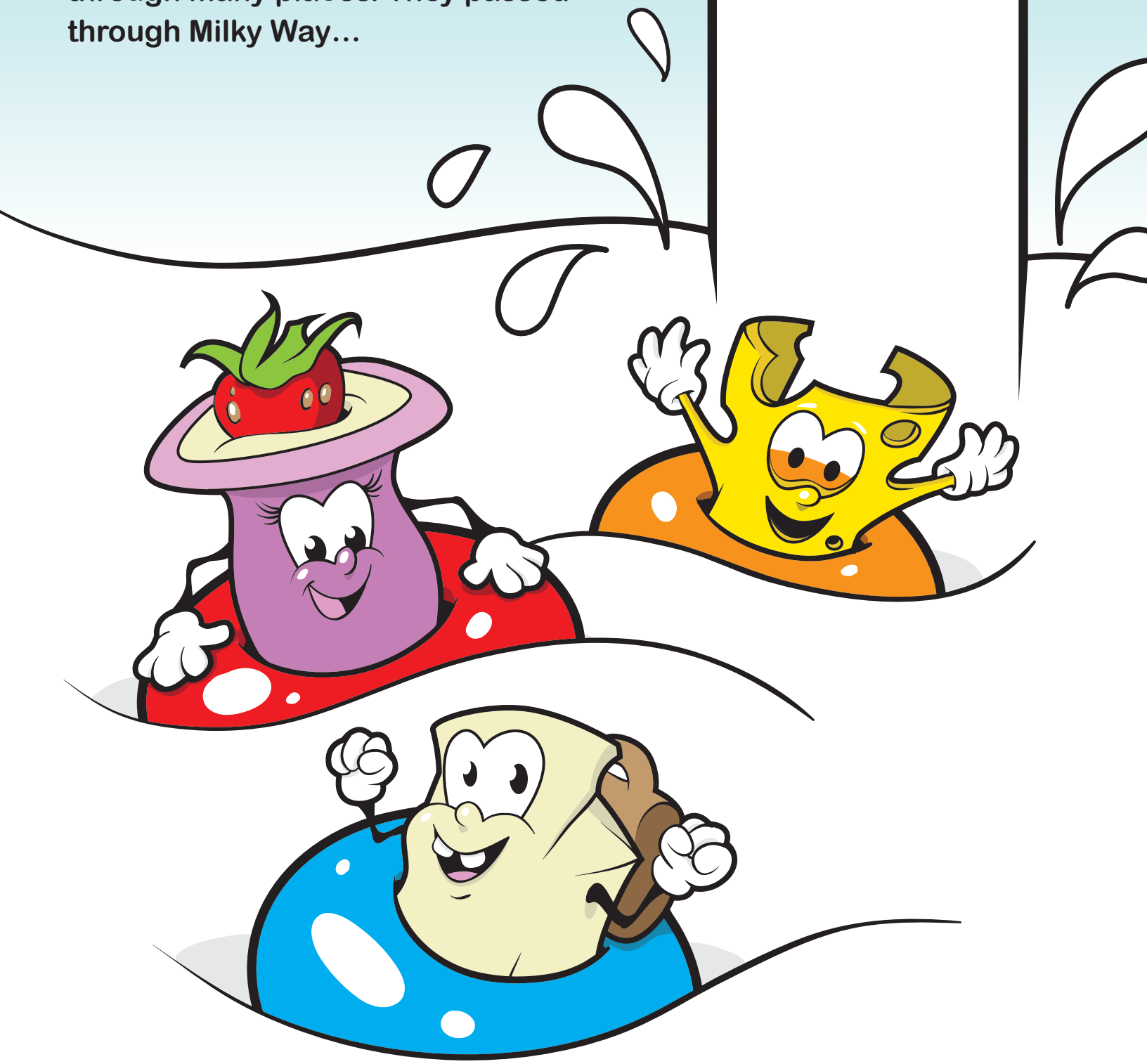
“I’m Charlie Cheese,” he said. “This is the third time I’ve lost my calcium. I’m very forgetful you see. How am I going to keep kids’ bones and teeth strong without my calcium?”

“Well,” Milton explained, “we are going to see the Dairy Fairy. She is going to make me bigger and make Berry low-fat. Maybe the Dairy Fairy can help you find your calcium.”

This made Charlie very happy, and just like that, the three continued on their journey.



Milton, Berry, and Charlie traveled through many places. They passed through Milky Way…

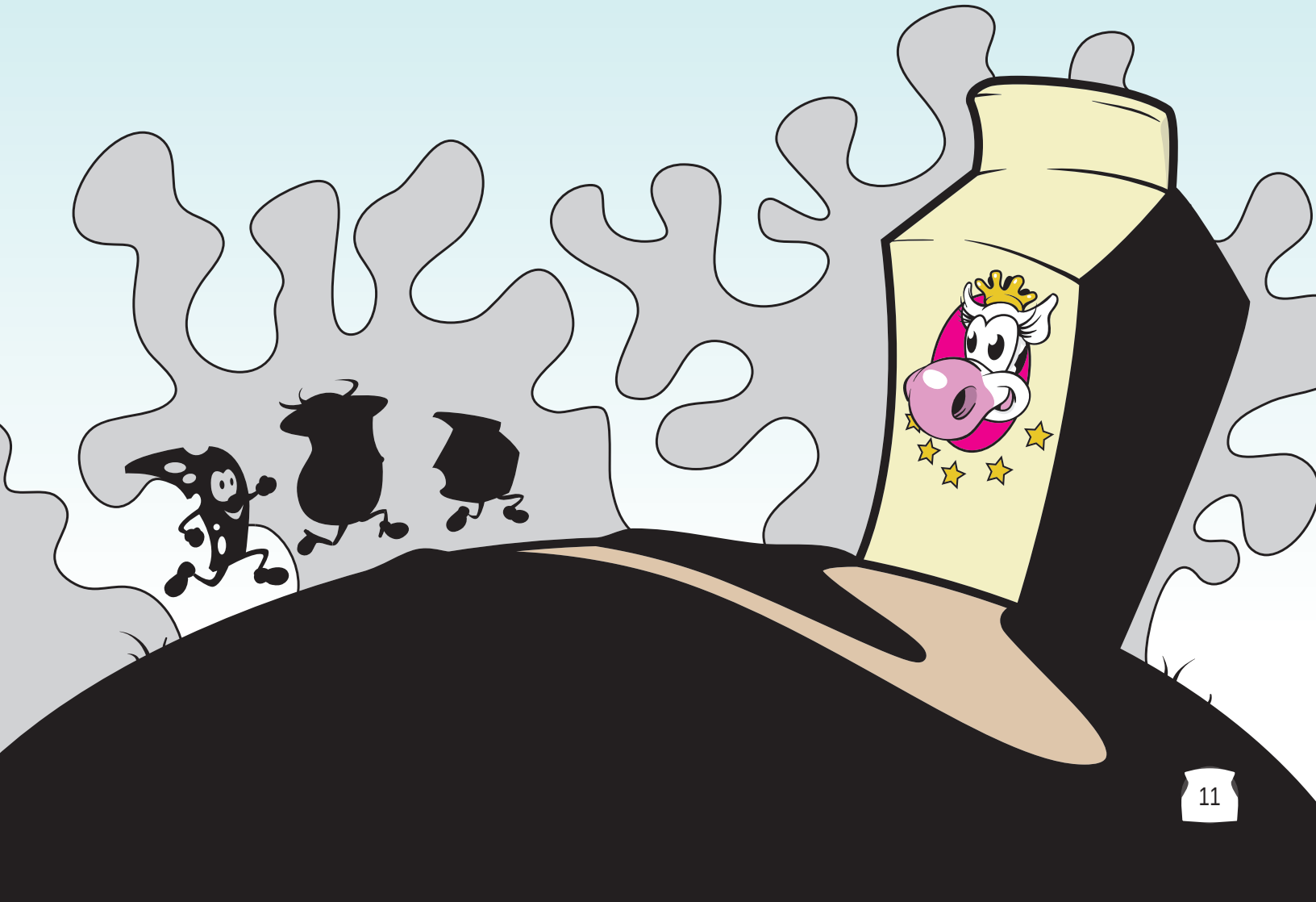


and Ice Cream Country...

…until finally they reached the MooTown Forest. Milton noticed a strange shape in the distance. “What is that?” he asked the others.

“There’s only one way to find out,” said Charlie.

The three dairy foods ran towards the strange shape.

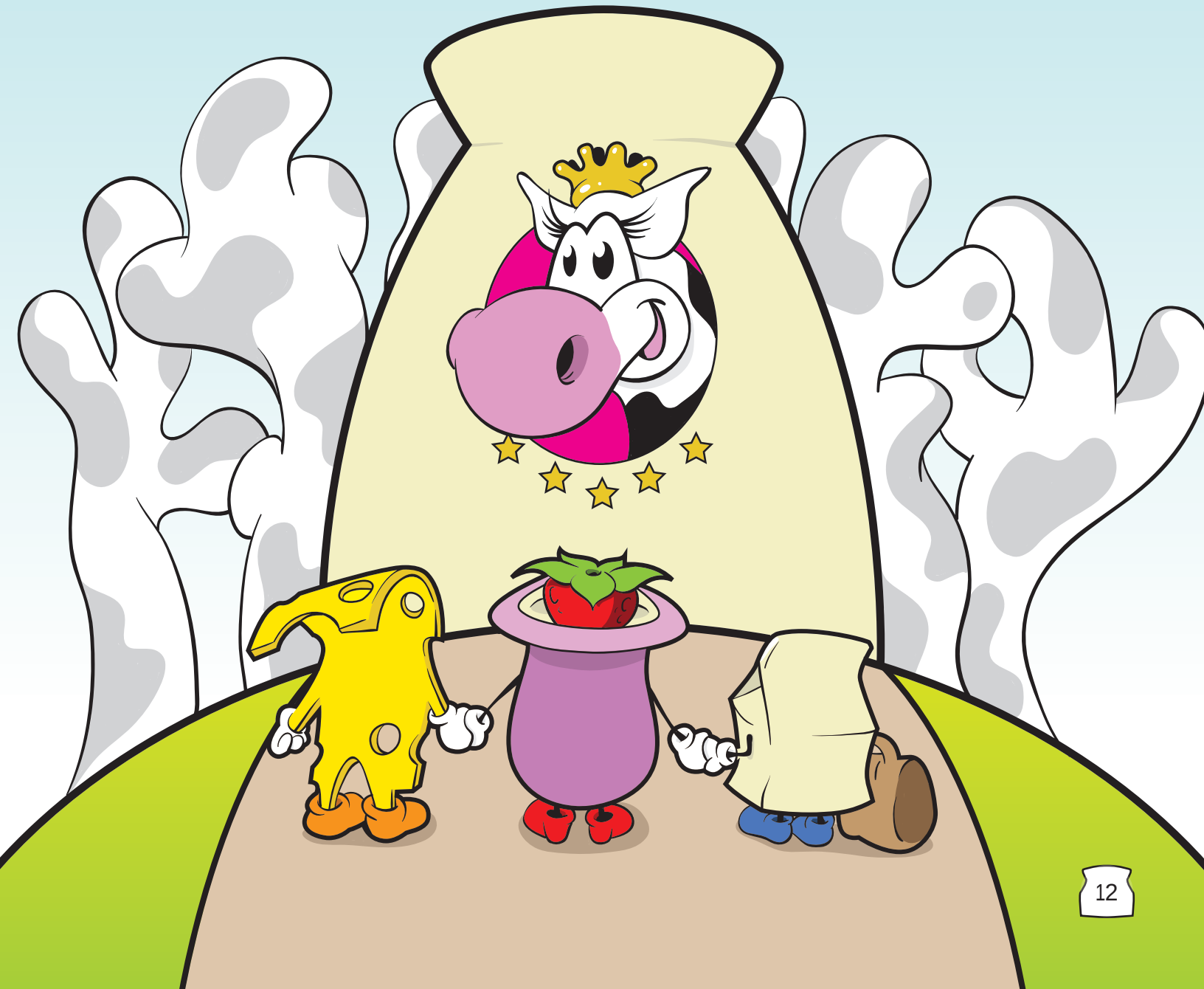


Milton, Berry, and Charlie found themselves standing in front of a very large milk carton. Suddenly, they heard a voice from inside.

“Who’s there?” asked the voice.

The group was silent. They were scared and wanted to run away.

“I said who’s… Oh, hello there!” said the Dairy Fairy as she magically appeared in front of them.

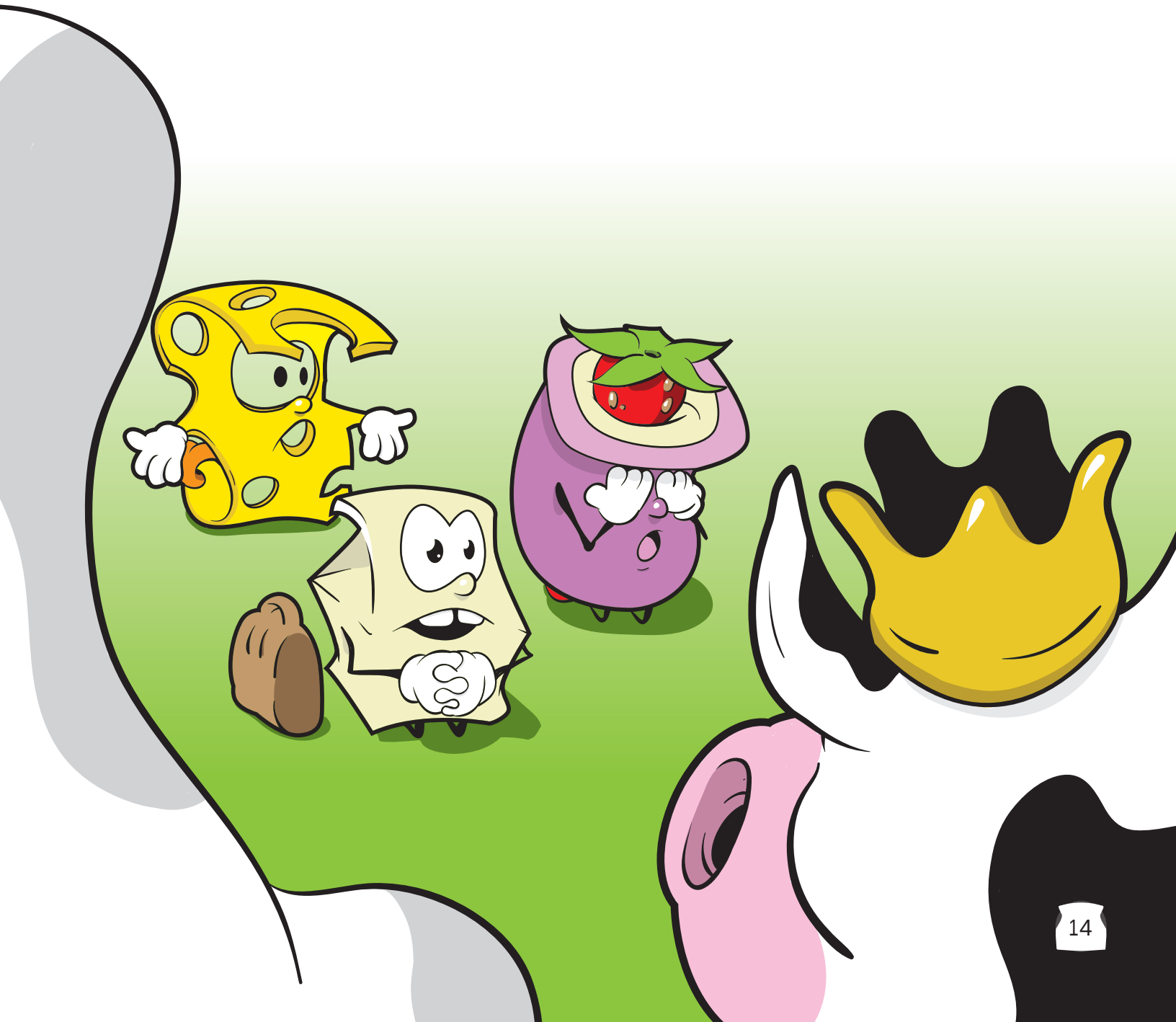


Berry spoke first. “Hello, Dairy Fairy. I’m Berry Yogurt, and these are my friends Milton Milk and Charlie Cheese. We’ve all come to see you in hopes that you can grant our wishes.”

“Well, I’m quite tired today,” said the Dairy Fairy. “I’ve been granting many wishes lately, and a cow can only do so much moooving in one day. Please come back another time.”

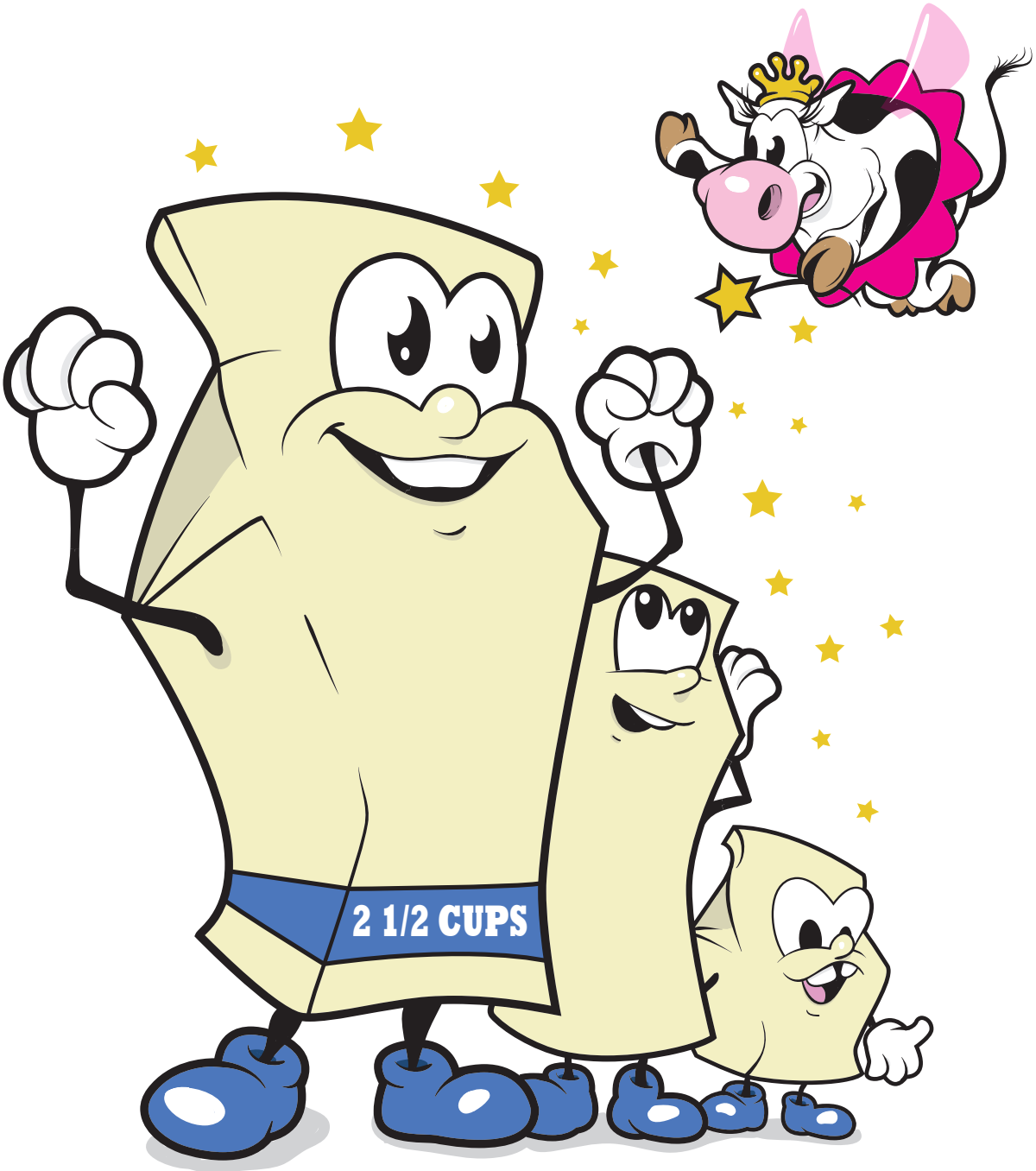
The dairy foods begged her. “Please, Dairy Fairy! We’ve traveled so far! We want to make people healthy, and we really need your help!”

The Dairy Fairy stopped and thought a moment. If they had come all this way to make people healthier, then she should be willing to help too. After a moment she turned to them and said, “Okay, dairy foods, I will help you. Who’s first? Please step forward.”



Milton stepped forward first. “As you can see, Dairy Fairy, I’m very small. Kids ages 4-8 need 2 ½ cups of dairy foods every day, and I am too small to do this. Please make me bigger, so I can keep kids healthy and strong.”

The Dairy Fairy smiled and waved her wand. Berry and Charlie watched in amazement as Milton grew right before their eyes!



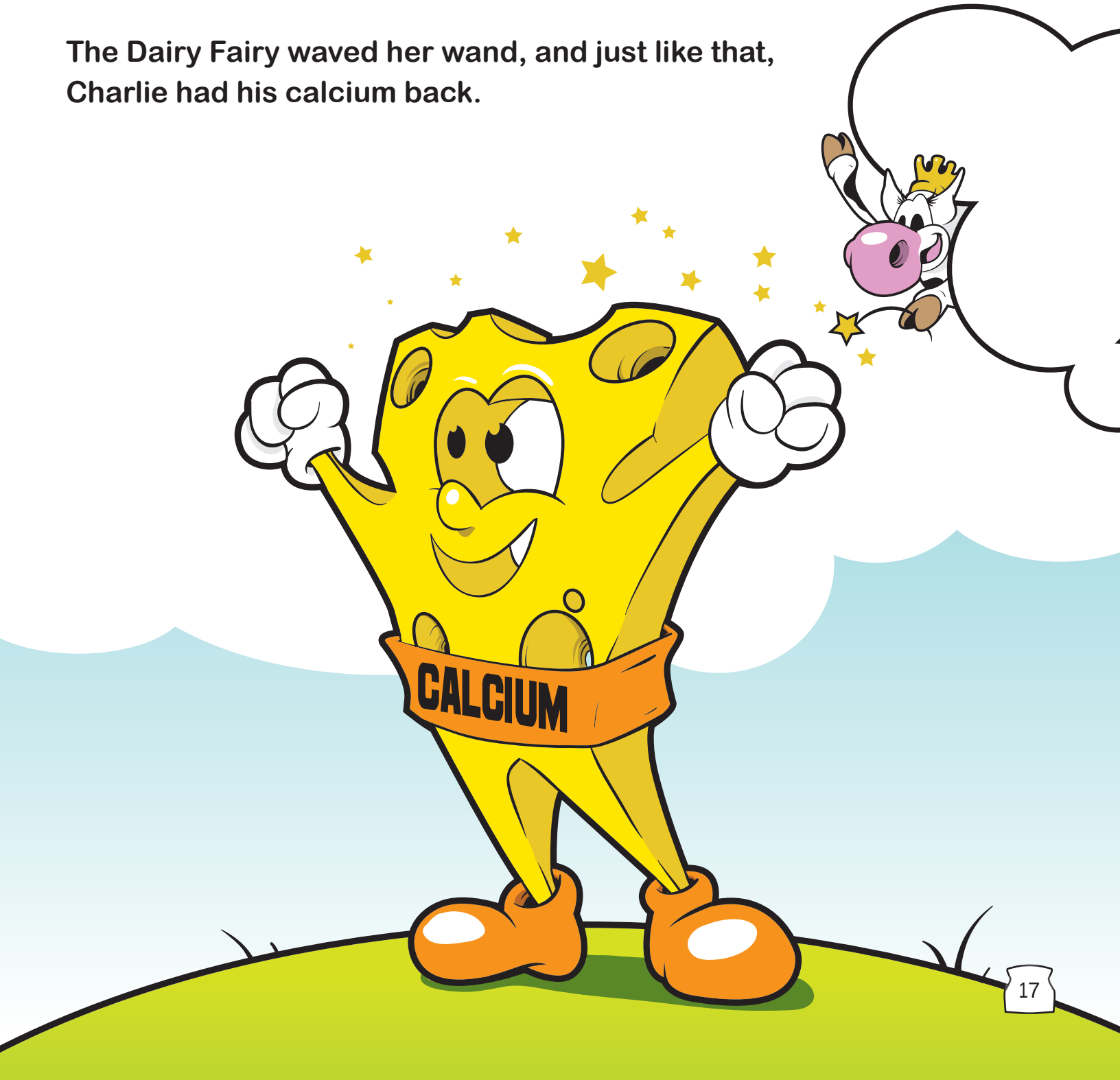
Berry was next. “Dairy Fairy, all dairy foods are good choices, but low-fat and fat-free dairy foods are the best choices. Please make me low-fat, so I can be the best choice to keep kids healthy and active.”

With a shake of her wand, the Dairy Fairy made Berry Yogurt low-fat.

Charlie was last. “You see, Dairy Fairy, I have a bad habit of losing my calcium. Without it I can’t keep kids’ bones and teeth strong. Can you please give me my calcium back?”

“You really must be more careful,” said the Dairy Fairy. “But I will help you this one time.”

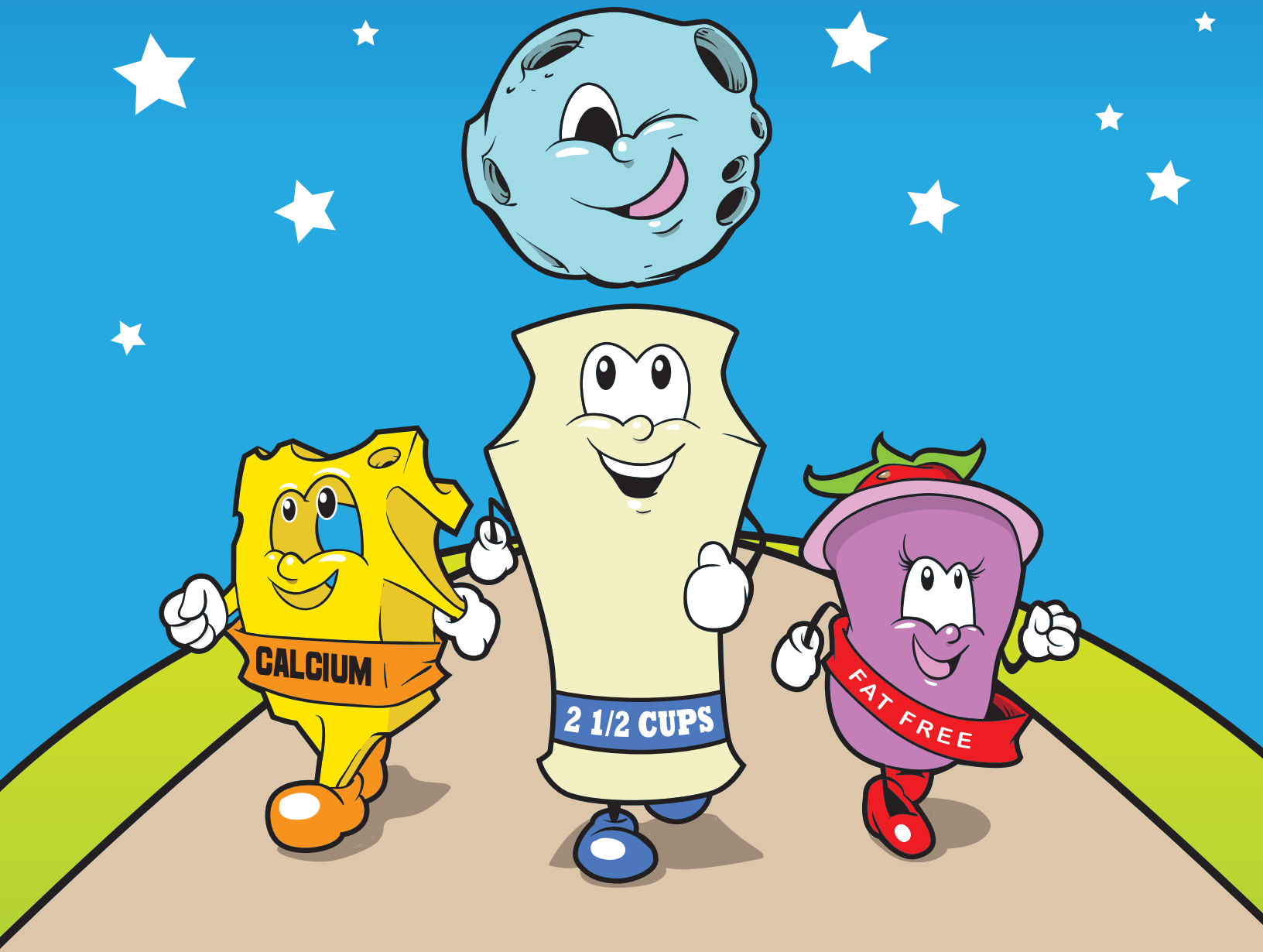
The Dairy Fairy waved her wand, and just like that, Charlie had his calcium back.



Milton, Berry, and Charlie were the happiest they had ever been.

“Thank you, Dairy Fairy!” they all yelled with joy.

As the three friends headed back to their homes, they thought about everything that had happened that day. It was the best day ever, because now they could keep kids healthy and strong… just like you!



The End

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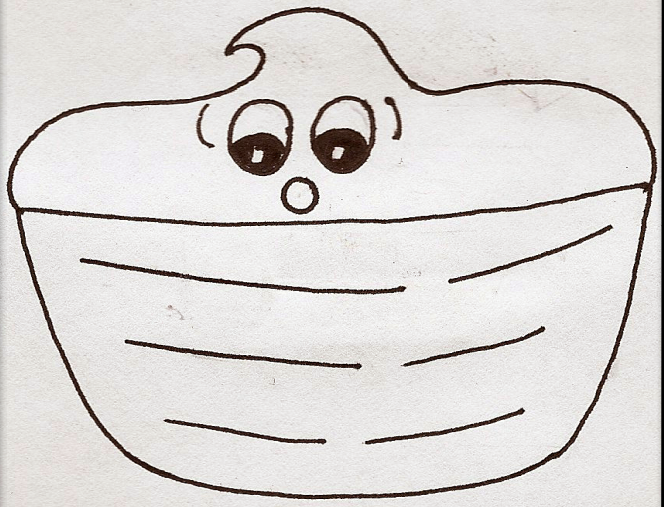
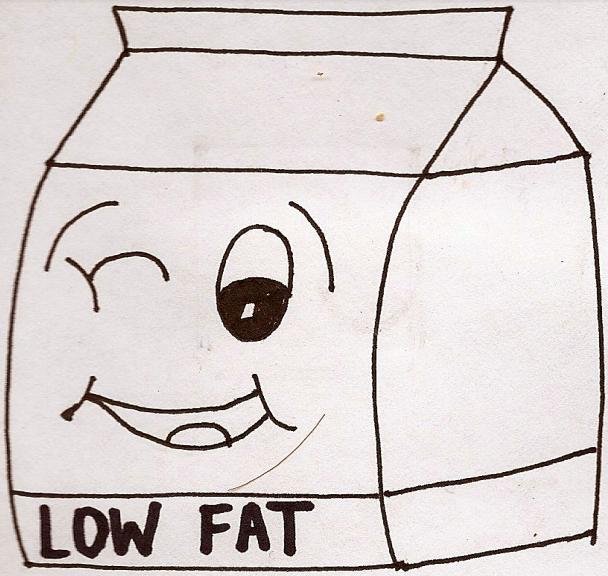
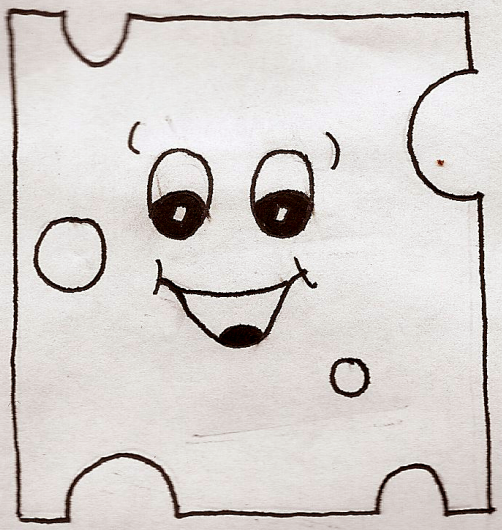
grow • shop • cook • eat
Family Nutrition Program



Pudding



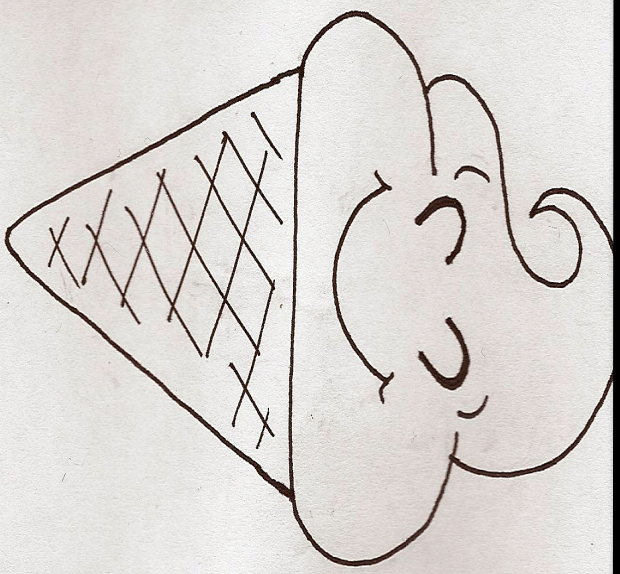
LOW-Fat Milk

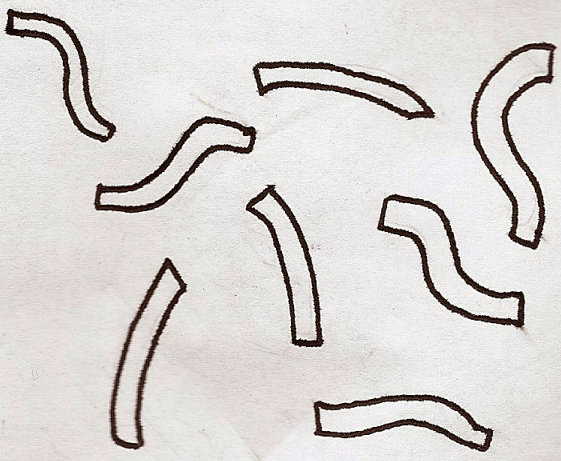


Fat-Free cheese

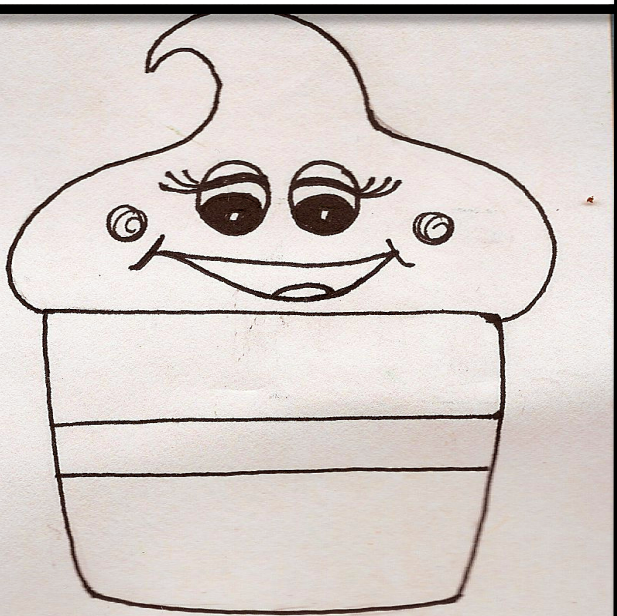
Fat-Free Yogurt

Ice cream

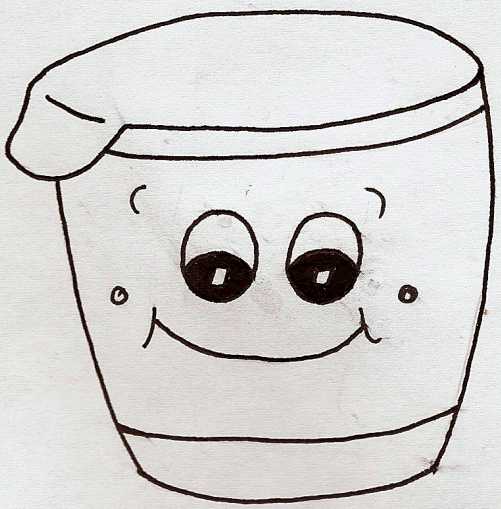




Shredded cheese

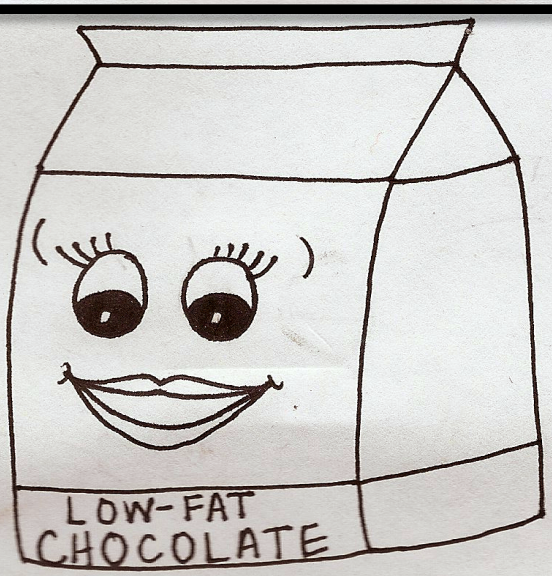


Frozen Yogurt

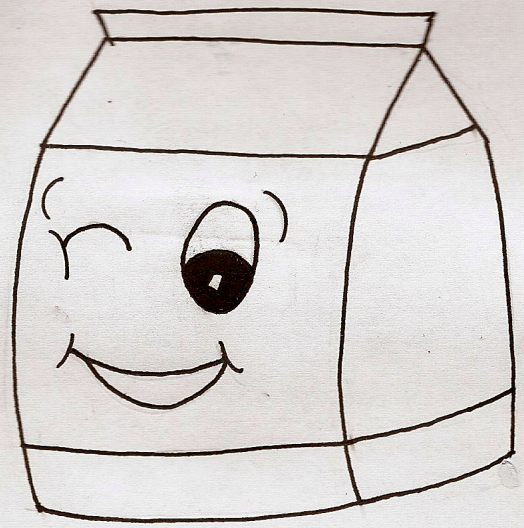


Vanilla pudding

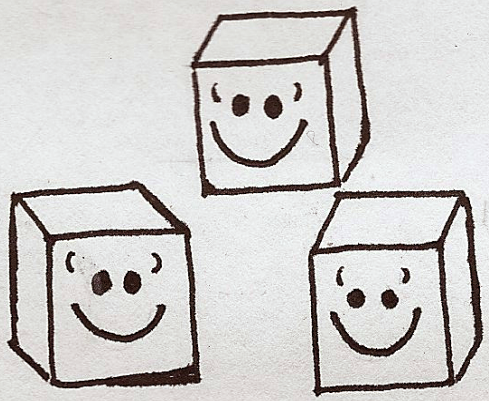
Chocolate milk



Low-Fat chocolate milk

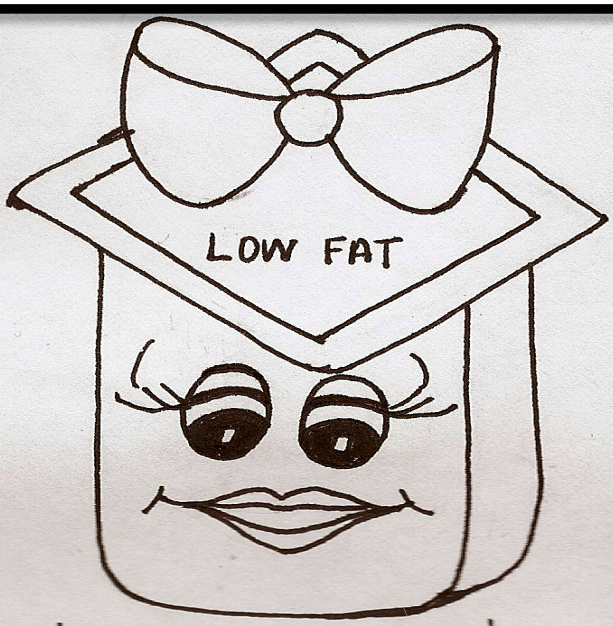


Regular Milk

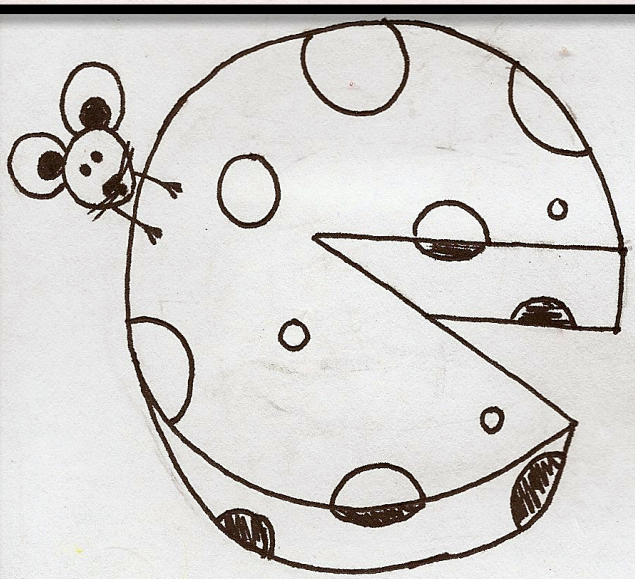


Low-Fat cheese cubes

Fat-Free Milk

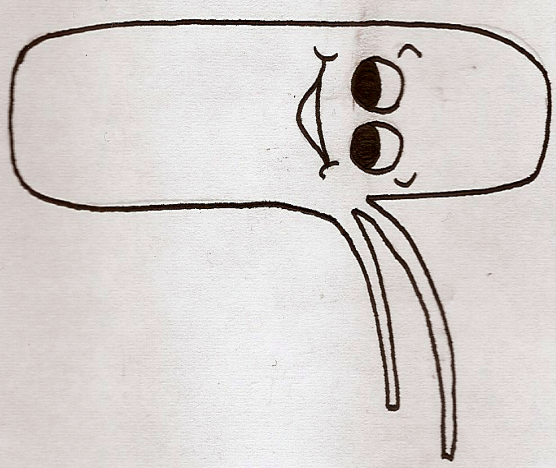


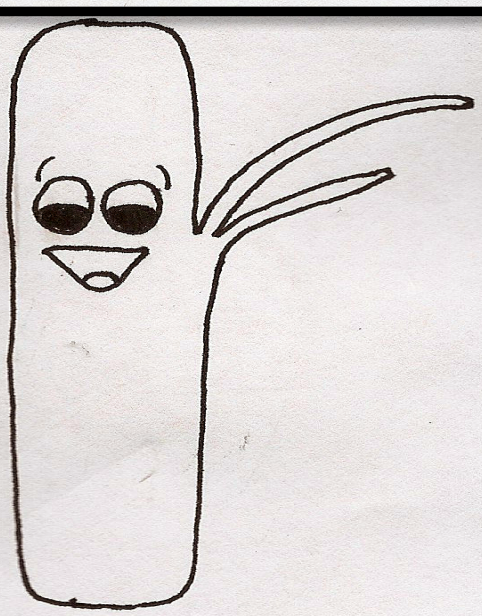
Low-Fat Yogurt



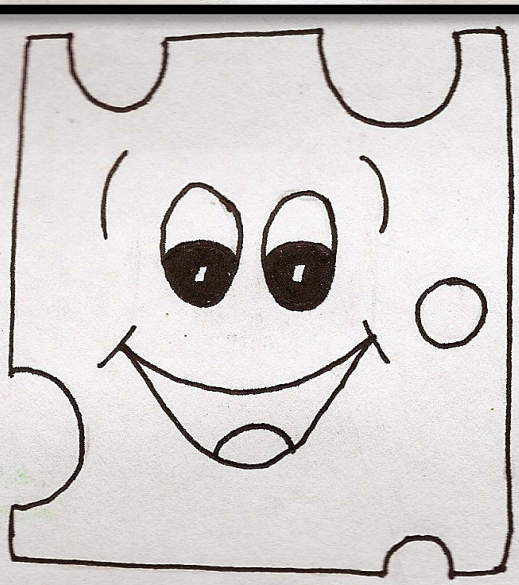
Cheese

Low-Fat String cheese

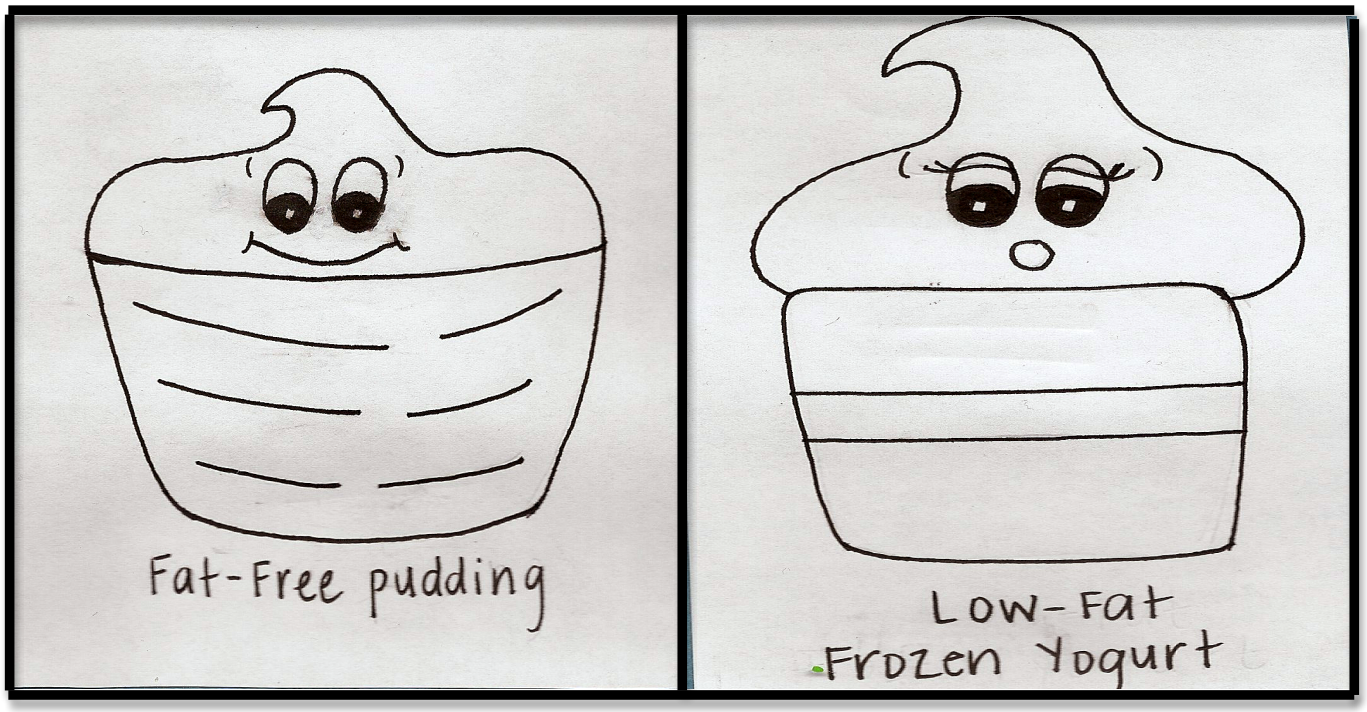




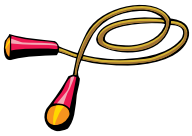
String Cheese



Low-Fat Cheese


Fat-Free pudding
Low-Fat
Frozen Yogurt


BEST
GOOD



Physical Activity

MATERIALS

- "Dry Bones"' lyric sheet (electronic copy in PowerPoint)
- Mp3 file of "Dry Bones" by Wee Worship, available on iTunes (or by clicking below)
  - To access the file, download iTunes. Once it is downloaded, open the iTunes Store. There, you can search for "Dry Bones Instrumental" (only the music) by Wee Worship. The file costs $0.99.
- Device that is able to play mp3s
- Written instructions of suggested movements (feel free to get creative!)

ACTIVITY INTRODUCTION

We are going to sing a song and learn some movements to help remind you that calcium is important for strong bones and teeth. Remember, one of the reasons you are able to dance is because calcium has made your bones healthy and strong. Let's all gather over here. Gather students to an open area, so that each student has about an arm's length of space. *Display the lyrics using PowerPoint so that the whole class can see. First, I am going to demonstrate the song and dance, and then we can all give it a try!* Perform the song and dance once, encouraging the students to mimic you as they begin to catch on. Do the song and dance as many times as the students want, as time permits. It will get easier for them to follow along each time.

SUMMARY

Ask the students to sit on the floor in front of you for a short discussion. *Wasn't that fun? Dancing is a fun and easy way to be active and keep your body healthy. At home, you can make up movements to any of your favorite songs! Can anyone tell me what the song we just sang was about?* Allow students to answer. Correct answers can include calcium, strong bones. *Right, the song was about calcium. Who can tell me what parts of our bodies need calcium to stay healthy?* Call on students. The correct answer should include how calcium is important for strong bones and teeth. *Good! Dairy foods help us build strong bones and teeth. What foods from the Dairy group can we eat every day to help us get enough calcium?* Allow students to answer: milk, cheese, yogurt, pudding, and ice cream. *Can someone tell me how many cups of Dairy group foods you need every day to keep your bones and teeth strong?* Allow students to answer: 2 ½ cups. *Who can tell me which Dairy group foods are the best choices? Allow students to answer: low-fat and fat-free. Great job everyone!* Tell the students return to their seats.

WE LOVE CALCIUM

(to the tune of "Dry Bones" by Wee Worship)

My bones, my bones, my strong bones,
My bones, my bones, my strong bones,
My bones, my bones, my strong bones,
We love calcium!

The toe bone's connected to the foot bone,
The foot bone's connected to the ankle bone,
The ankle bone's connected to the leg bone,
The leg bone's connected to the knee bone,
The knee bone's connected to the thigh bone,
The thigh bone's connected to the hip bone,
We love calcium!

My bones, my bones, my strong bones,

My bones, my bones, my strong bones,

My bones, my bones, my strong bones,

We love calcium!

The hip bone's connected to the back bone

The back bone's connected to the neck bone,

The neck bone's connected to the head bone,

The finger bone's connected to the hand bone,

The hand bone's connected to the arm bone,

The arm bone's connected to the shoulder bone,

We love calcium!

My bones, my bones, gonna stay strong

My bones, my bones, gonna stay strong

My bones, my bones, gonna stay strong

Because of calcium!

We love calcium!

We love calcium!

WE LOVE CALCIUM DANCE MOVEMENTS

(to the tune of "Dry Bones" by Wee Worship)

My bones (move R one step while pointing to yourself with your thumbs),

my bones (move R one step while pointing to yourself with your thumbs),

my strong bones (flex your arms up in the air to "make a muscle")

My bones, my bones, my strong bones (repeat above movements, this time stepping to the L)

My bones, my bones, my strong bones (repeat above movements, this time stepping to the R)

We love calcium! (march in place)

The toe bone's connected to the foot bone (bend down and point to your feet),

The foot bone's connected to the ankle bone (stand up and shake one of your feet in the air),

The ankle bone's connected to the leg bone (jump and separate your legs so that they are shoulder-width apart),

The leg bone's connected to the knee bone (bend to put your hands on your knees, move knees from side to side),

The knee bone's connected to the thigh bone (bend to put your hands on your thighs, bend up and down in a squatting motion),

The thigh bone's connected to the hip bone (stand up, put your hands on your hips, and sway hips from side to side),

We love calcium! (march in place)

My bones (move R one step while pointing to yourself with your thumbs),

my bones (move R one step while pointing to yourself with your thumbs),

my strong bones (flex your arms up in the air to "make a muscle")

My bones, my bones, my strong bones (repeat above movements, this time stepping to the L)

My bones, my bones, my strong bones (repeat above movements, this time stepping to the R)

We love calcium! (march in place)

The hip bone's connected to the back bone (put your hands on your hips and sway from side to side),

The back bone's connected to the neck bone (put both hands on your face, shake your head from side to side while swaying whole body from side to side),

The neck bone's connected to the head bone (put both hands on your face, shake your head from side to side while swaying whole body from side to side),

The finger bone's connected to the hand bone (arms up in the air, wiggle fingers),

The hand bone's connected to the arm bone (arms up in the air, shake hands),

The arm bone's connected to the shoulder bone (do the "chicken dance"),

We love calcium! (march in place)

My bones (move R one step while pointing to yourself with your thumbs),

my bones (move R one step while pointing to yourself with your thumbs),

my strong bones (flex your arms up in the air to "make a muscle")

My bones, my bones, gonna stay strong(repeat above movements, this time stepping to the L)

My bones, my bones, gonna stay strong(repeat above movements, this time stepping to the R)

Because of calcium! (march in place)

We love calcium! (march in place)

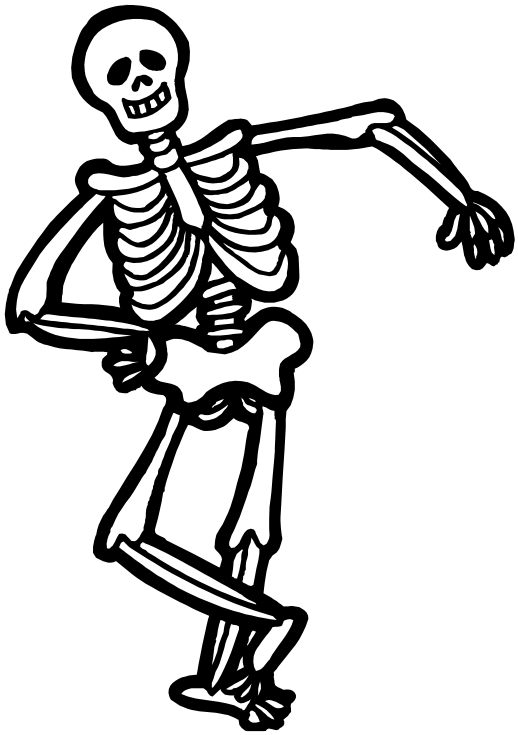
We love calcium! (march in place

We Love Calcium

(to the tune of "Dry Bones" by Wee Worship)

My bones, my bones, my strong bones,
My bones, my bones, my strong bones,
My bones, my bones, my strong bones,
We love calcium!

The toe bone's connected to the foot bone,
The foot bone's connected to the ankle bone,
The ankle bone's connected to the leg bone,
The leg bone's connected to the knee bone,
The knee bone's connected to the thigh bone,
The thigh bone's connected to the hip bone,
We love calcium!



My bones, my bones, my strong bones,
My bones, my bones, my strong bones,
My bones, my bones, my strong bones,
We love calcium!

The hip bone's connected to the back bone
The back bone's connected to the neck bone,
The neck bone's connected to the head bone,
The finger bone's connected to the hand bone,
The hand bone's connected to the arm bone,
The arm bone's connected to the shoulder bone,
We love calcium!

My bones, my bones, gonna stay strong
My bones, my bones, gonna stay strong
My bones, my bones, gonna stay strong
Because of calcium!
We love calcium!
We love calcium!

Snack: Dill & Cheese Dip

NUTRITIONAL ANALYSIS

Nutrition Facts

Serving Size (39g)

Amount Per Serving	
Calories 100	Calories from Fat 15
	%Daily Value*
Total Fat 1.5g	**3%**
Saturated Fat 0g	**2%**
Trans Fat 0g	
Cholesterol < 5mg	**1%**
Sodium 200mg	**8%**
Total Carbohydrate 16g	**5%**
Dietary Fiber 2g	**8%**
Sugars 1g	
Protein 5g	

Vitamin A 0%	•	Vitamin C 0%
Calcium 4%	•	Iron 4%
Vitamin D 0%	•	Phosphorus 10%
Magnesium 6%		

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

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

SERVES: 5

SERVING SIZE 2 Tbs, 4 cracker

INGREDIENTS

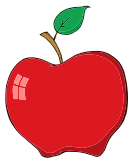
- 1/3 cup fat-free cottage cheese
- 2.5 tablespoons plain fat-free yogurt
- 2.5 tablespoons low-fat shredded cheddar cheese
- 1 tsp lemon juice (or to taste)
- ¼ tsp dill weed (or to taste)
- 1/8 tsp garlic powder (or to taste)
- 1/8 tsp black pepper (or to taste)
- 20 Reduced fat whole-wheat crackers

SUPPLIES

- Medium bowl
- Spoon for mixing
- Small Plates (any size)
- 1/3 cup measuring cup
- 1 tbsp measuring spoon

DIRECTIONS (SERVING SIZE)

1. Mix all ingredients in a medium bowl.
2. Chill in the refrigerator until serving.
3. Serve with reduced fat whole-wheat crackers.



Recommended Snacks for Lactose-Intolerant Children

The American Academy of Pediatrics (AAP) recommends that children and teens continue to incorporate dairy foods in their diet even if he/she is lactose intolerant. Hard cheeses and yogurt that contains active cultures have less lactose than milk so they are easier to digest (1). If lactose-intolerance or a milk allergy is an issue in the classroom, try to recipes below.

ORANGE CREAMSICLE DRINK

This delicious, easy-to-make cold beverage makes a great lactose-free snack alternative. Use calcium-fortified orange juice to increase the calcium content!

- ½ cup 100% juice, calcium-fortified orange juice
- ½ cup calcium-fortified soy milk
- Mix together, chill, and serve

CHEESE AND CRACKERS

Although simple, this snack still provides children with a small amount of calcium and fiber using some of the same ingredients as above. The small amount of lactose in this snack should not irritate lactose-intolerant children.

- 2 reduced-fat whole wheat crackers (same as above)
- Shredded low-fat cheddar cheese
- Top crackers with a sprinkle of cheddar cheese and serve

COMMONLY ASKED QUESTIONS:

Q: I've heard ice cream is bad for you. Is that true?

A: Ice cream is part of the Dairy group because it is made with milk and has calcium in it. Regular ice cream has a lot of fat and sugar so you should only eat it sometimes. There are types of ice cream with less fat and sugar that your family can buy.

Q: Why do I need to eat foods from the Dairy group?

A: Foods in the Dairy group contain many important nutrients. Consuming dairy products are especially important for bone health and reducing the risk of osteoporosis. Calcium is used for building strong bones and teeth and in maintaining bone mass. Potassium may help maintain a healthy blood pressure. Vitamin D helps the body build and maintain bones.

Q: What is osteoporosis?

A: It is a disease in which bones become weak and brittle. This makes them more susceptible to breakage.

Q: How much food from the Dairy group do I need every day?

A: It depends on your age. Children ages 2–3 need 2 cups of dairy foods, while children ages 4–8 need 2 ½ cups. Everyone else needs 3 cups of dairy foods.

Q: Why aren't cream cheese, cream, and butter part of the Dairy group?

A: Even though these foods are made using milk, they contain little to no calcium.

Q: I am lactose intolerant. Can I still consume foods from the Dairy group?

A: Yes. There are many lactose-free and lactose-reduced products available, including calcium-fortified soymilk.

Q: Why should I switch to low-fat or fat-free dairy products?

A: When dairy foods are not low-fat or fat-free, they can be high in saturated fat and cholesterol. Diets high in saturated fat and cholesterol increase the risk for coronary heart disease and may make it difficult to avoid consuming more calories than are needed.

Q: I drink whole milk. How can I switch to low-fat or fat-free milk?

A: Switching to low-fat and fat-free dairy products will reduce the saturated fat and calories in your diet. To make the transition easier, first try reduced fat (2%) milk. Then you can gradually switch to low-fat (1%) milk or fat-free (skim) milk.

Dear Parent or Caregiver,

Today your child learned about the Dairy group. The Dairy group includes milk, cheese, yogurt, pudding, and ice cream. Dairy group foods contain many nutrients, but are especially important because they contain calcium. Calcium plays an important part in keeping our teeth and bones strong and healthy. All of the foods from the Dairy group contain calcium, but it is best to choose low-fat and fat-free Dairy group foods. Low-fat and fat-free dairy foods have less saturated fat and fewer calories. Eating too much saturated fat and more calories than needed can have a negative effect on long-term health.

As parents or caregivers, you play a big part in helping your child develop good eating habits. Children between the ages of 4 to 8 need at least 2 ½ cups of dairy foods every day. The snack recipe on the back of this letter can help you get started. If your child is lactose intolerant or has a milk allergy, there are other ways to get calcium. Try giving your child calcium-fortified soy milk or 100% fruit juice that is fortified with calcium (like some orange juices).

Doing the following activities with your child is a great way to reinforce what your child learned about Dairy group foods and to help him or her remember what they learned about calcium. It may even help your child improve his or her eating habits.

- During this lesson, your child learned a song and dance about strong bones. Ask your child to teach you the song and the dance moves. You can sing the song and do the motions together.
- During this lesson, your child listened to a story about Milton Milk, Charlie Cheese, and Berry Yogurt. Ask him or her to explain the story to you and why each character was important.
- Let your child help you grocery shop. Allow him or her to choose low-fat and fat-free dairy foods at the store. When children help choose their foods, they are more likely to eat them.

We hope that the lesson your child learned today and the activities we suggest for doing at home will motivate your child to eat a variety of Dairy group foods, foods that are calcium-rich and provide a variety of c other nutrients as well. To learn more about the Dairy group and calcium visit the USDA MyPlate website: www.ChooseMyPlate.gov.

Sincerely,

LESSON 5

The Power of Protein Foods

Concept

Although most children consume enough protein on a daily basis, many have never learned what foods provide protein and where those foods come from. This lesson teaches children about the sources of protein foods and why protein foods are an important part of the diet.

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Youth Understanding MyPlate

Background

The Protein Foods group is represented by the color purple on MyPlate. It includes foods such as lean cuts of beef, pork, chicken, turkey, fish, eggs, nuts, seeds and beans. These foods are grouped together because they are the main sources of protein in the diet. The MyPlate website has helpful tips for choosing and preparing foods from the Protein Foods group. In order to get the most nutritional benefit from protein foods, it is important to choose lean cuts of meat, eat a variety of foods, use low-fat cooking methods and practice safe methods for handling, storing and cooking these foods (1).

The Protein Foods group is unique because it is the main source of protein in the diet. Protein is made from subunits called amino acids. Amino acids are needed by the body to build different types of proteins that have different functions. Every protein that is made from amino acids is unique and plays a special role in the body to maintain health. Some amino acids are actually made in the body, but other amino acids must come from the diet (2). Each food from the Protein Foods group contains different combinations of amino acids, and this is the reason that MyPlate suggests eating a variety of foods (3).

Children grow at a rapid rate, and they need the right nutrition to keep their bodies healthy while they are growing. Protein plays lots of roles in the body, but it is best known for building healthy muscles (4). Muscles are built from the amino acids that come from foods in the Protein Foods group. Eating different kinds of food from this group provides the body with the building blocks for healthy muscle growth in a developing child.

The Protein Foods group is a good source of protein, vitamins and minerals. Meats can also be a source of unhealthy types of fat, which is why it is important to choose lean cuts of meat. Fat from animal products is considered unhealthy because it has high levels of saturated fat and cholesterol. High intakes of these fats can lead to weight gain and heart disease. Choosing lean cuts of meat is the first step toward avoiding too much animal fat. In addition, the 2010 Dietary Guidelines for Americans recommends replacing some meat and poultry with seafood to decrease the amount of fat consumed (5). When it is time to cook, extra fat should be cut off the meat and a low fat cooking method should be used. Using low fat cooking methods such as baking and grilling means that less oil will be added, which also helps to limit the fat content of the meal. Choosing and preparing low-fat meats ensures that the health benefits from the Protein foods group will not be overshadowed by the harmful effects of eating too much fat.

Some people choose a vegetarian diet, which means that they may not eat meat or animal products. These people can still get plenty of protein by including beans, nuts and seeds in their diets. Protein that does not come from animals may have low amounts of some amino acids and nutrients, so it is especially important for vegetarians to eat a wide variety of foods (6). Children that do not eat animal products may not be getting enough of certain nutrients such as iron, zinc, calcium and B vitamins (7-9). Most of these nutrients are found in small amounts in most plant foods, so by combining a variety of foods in the diet, the body can get most of the nutrition that it needs. A possible exception is vitamin B12. Children who eat a vegan diet (a type of vegetarian diet that includes only plant foods, that is, no milk, cheese, eggs, etc.) will not get enough vitamin B12 unless they consume cereals, bars, soy milk or other foods fortified with vitamin B12 or take a vitamin B12-containing supplement. If a child who is a vegetarian is not eating a good variety of foods, it may be wise to talk to a doctor and to find out if a multi-vitamin and mineral supplement is needed.

MyPlate recommends that children between the age of four and eight consume three to four ounces of food from the Protein Foods group every day (1). Children in America usually eat more than enough protein, so getting the recommended amount is not a big concern. It is most important to make sure that children are eating a variety of foods from the Protein Foods group so they get all of the amino acids, vitamins and minerals their bodies need. Children should learn that it is fun to try new foods, and if they want to keep their growing bodies healthy, they should eat the recommended amount of a variety of foods from the Protein Foods group.

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2nd Grade Lesson

LEARNING OBJECTIVES

The students will:

- recognize that foods in the Protein Foods group provide protein.
- state that protein helps build healthy muscles.

BEHAVIORAL OBJECTIVE

The students will:

- eat a variety of foods from the Protein Foods group.

RECOMMENDED BOOK

Find Out About Food: Meat and Beans by Tea Benduhn

FLORIDA STANDARDS

DANCE:

DA.1.S.1.2: The student will explore how body parts move by using imitation and imagery.

DA.1.S.2.2.: The student will practice simple dance sequences with assistance.

DA.1.S.2.3.: The student will perform simple movements on both sides of the body.

HEALTH EDUCATION:

HE.1.C.1.6: The student will emphasize the correct names of human body parts.

HE.1.C.1.Su.f.: The student will recognize body parts outside of the body, such as mouth, hands, arms, and head.

HE.1.C.1.Pa.f.: The student will recognize selected body parts outside of the body, such as the hand, mouth and nose.

SECOND GRADE:

SCIENCE:

SC.2.L.14.1.: The student will make observations of living things and their environment using the five senses.

SC.L.14.1.: The student will distinguish human body parts (brain, heart, lungs, stomach, muscles, and skeleton) and their basic functions.

SC.2.L.14.In.a.: The student will identify major external body parts, such as hands and legs, and their uses.

SC.2.L.14.Su.a.: The student will match external body parts, such as a foot, to their uses.

SC.2.L.14.Pa.a.: The student will recognize one or more external body parts.

DANCE:

DA.2.S.3.3.: The student will repeat given movements to show coordination between body parts.

DA.2.C.1.2.: The student will demonstrate listening, observing, and following skills while learning dance movements, and perform them with the teacher and alone.

DA.2.S.3.4.: The student will maintain a demonstrated rhythm in time to musical accompaniment.

Learning Activity: Muscle Puzzle

PRIOR TO ACTIVITY

Create the Muscle Puzzle using the instructions below:

1. Enlarge the Muscle Puzzle image and Muscle Puzzle board to the size of a poster board. Each one must be exactly the same size.
2. Glue the Muscle Puzzle onto the white poster board.
3. Cut along the outer outline of the Muscle Puzzle.
4. Cut out the individual puzzle pieces along the lines.
5. Trace the puzzle pieces onto a second poster board into the Muscle Puzzle image.
6. Print out two sets of food images and cut them out.
7. Glue one food image to the back of each puzzle piece randomly. Order does not matter.
8. Glue the enlarged Muscle Puzzle board onto the white poster board.
9. Stick adhesive onto each piece on the Muscle Puzzle board.

Optional: For durability and a three-dimensional effect, the muscle puzzle can be glued onto foam core board or cardboard, and the puzzle pieces can be cut out with a utility knife.

ACTIVITY INTRODUCTION

Hand each student a puzzle piece. *Today we will learn about the Protein Foods group! It is the purple group on MyPlate. Who can tell which foods are in the Protein Foods group?* Allow students to answer. *The Protein Foods group includes chicken, beef, beans, pork, fish and even nuts and seeds! These foods are special because they have lots of protein. Can any of you spell the word "protein?"* Allow student to spell protein. *Your body needs protein to help build healthy muscles. Can you show me your arm muscles like this (flex)? Great! You have muscles all over your body, not just in your arms and legs. Muscles are what help your body move, and they need protein to stay healthy! Our activity today is a muscle puzzle! Each of you has a puzzle piece with a picture of a protein food. One by one, each of you tell me what food you have, and where it comes from. The food will either come from a cow, chicken, pig, plant or water.*

ACTIVITY DIRECTIONS

1. Here is our puzzle board (show muscle man). See the numbers on the puzzle board? I will read a clue for each number. If your food matches the clue, then come to the front of the room and we will see if your puzzle piece fits! If your piece does not fit the first time, keep listening for a clue that fits.
2. Read the first clue from the list below. Allow the students with the corresponding food to come to the front of the classroom and place their puzzle piece on the correct spot on the Muscle Puzzle board.
3. Continue with each clue until all of the pieces are added to the board.

MATERIALS

- Non-permanent adhesive (sticky tack, velcro) for poster and puzzle pieces
- Muscle Puzzle master, provided
- Muscle Puzzle board, provided
- Poster board, 2 pieces
- Glue
- Scissors
- Pencil or marker
- 18 muscle puzzle pieces, directions provided
- Muscle Puzzle Food images, provided
- List of clues, provided

NOTE TO EDUCATOR:

Give one puzzle piece to each student. Each puzzle piece has a picture of a food from the Protein Foods group on the back.

Each puzzle piece space on the Muscle Puzzle board has a number that corresponds to a clue (listed below) about the food on the matching puzzle piece.

Read each clue from the list to the students. Tell the students which two numbers on the Muscle Puzzle board match the clue. The students must determine whether their puzzle piece matches the clue, and then must see if their piece fits. There are nine foods and 18 puzzle pieces, so each food appears on two different puzzle pieces. When the clue is read, the two students with the potential match can come to the poster and fit their pieces.

Allow the students to stick their piece into the correct space (*adhesive already present*).

MUSCLE PUZZLE CLUES

1 & 14 ***"I live in the water, but I am not a fish. I am little and red."*** (*shrimp*)

2 & 15 ***"I am a nut, and you can grind me into a type of butter."*** (*peanut*)

3 & 5 ***"I come from a plant, and I rhyme with 'lean'."*** (*bean*)

4 & 11 ***"I come from a farm animal that is covered in feathers."*** (*chicken*)

6 & 12 ***"I am a type of nut. I have a big hard shell and I look like a brain."*** (*walnut*)

7 & 18 ***"I come from a farm animal that says, 'Moo'."*** (*steak*)

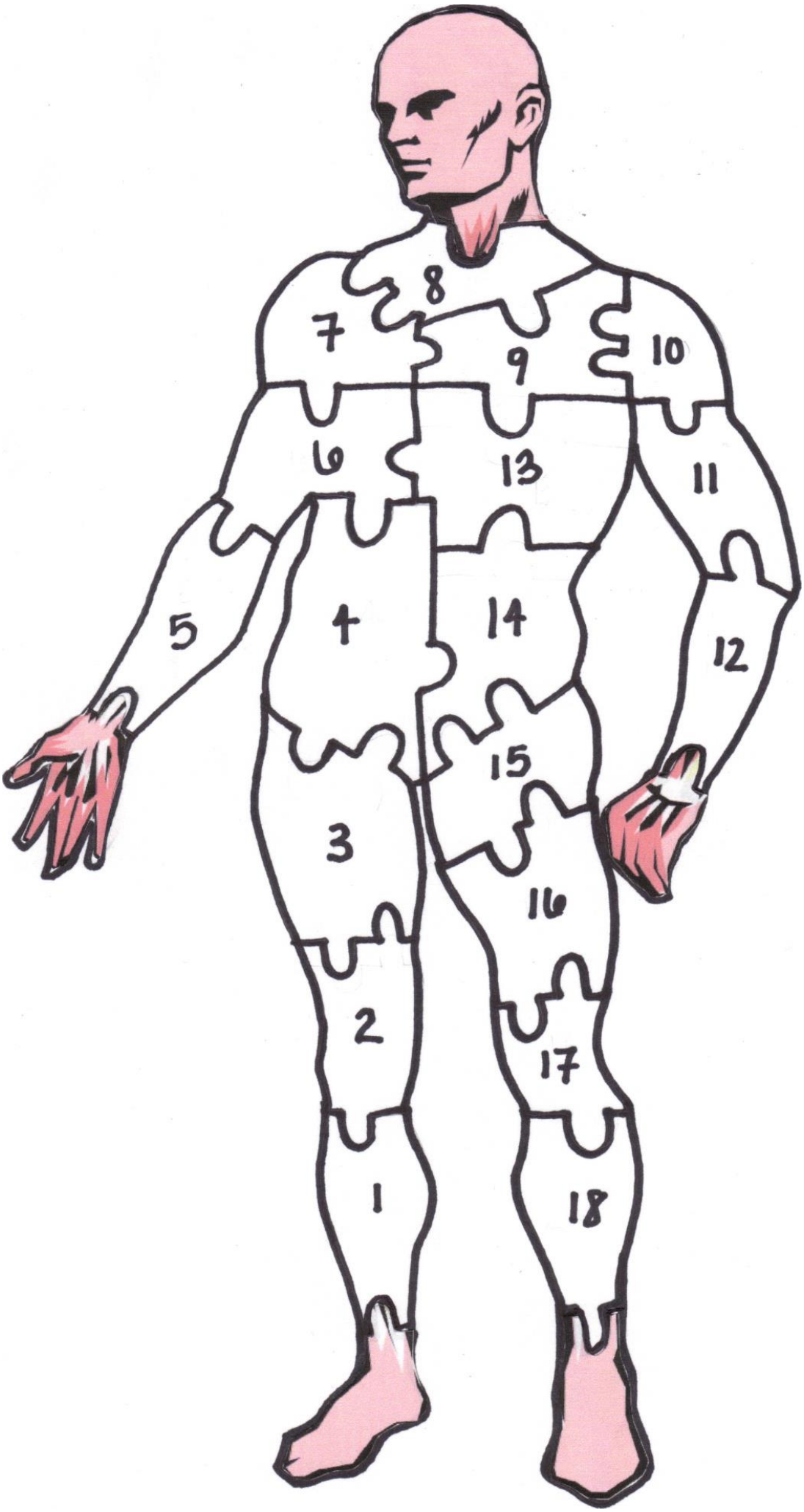
8 & 10 ***"I come from a farm animal that says, 'Oink'."*** (*pork chop*)

9 & 16 ***"I come from a farm animal, and you have to crack me open to eat me."*** (*egg*)

13 & 17 ***"I live in the water, and I am covered in scales."*** (*fish*)

SUMMARY

Great job everyone! Let's review what you have learned today. Why do we need protein? Allow student to answer. ***Right!*** P***rotein foods help to build healthy muscles! Where do the protein foods we talked about today come from?*** Allow students to answer. ***Cows, pigs, chickens, plants and water. Awesome job! Next time you eat a protein food think about where it came from!***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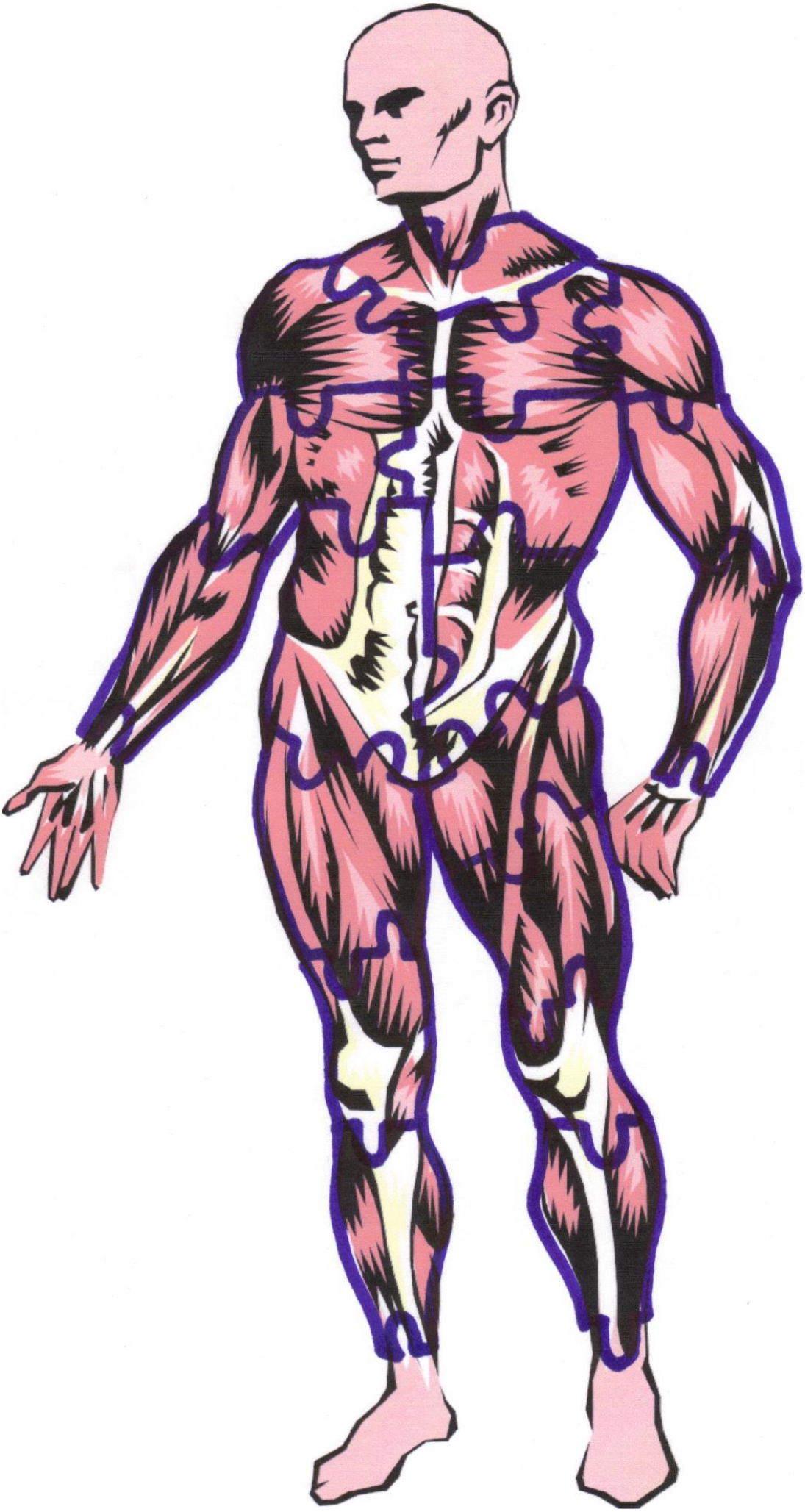


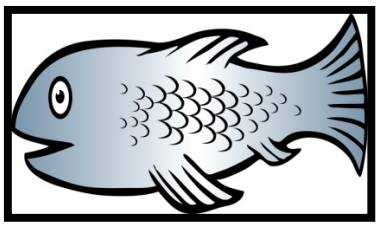
1st/2nd grade Activity Materials
Muscle Puzzle Foods

Chicken Leg (4&11)

Shrimp (1&14)

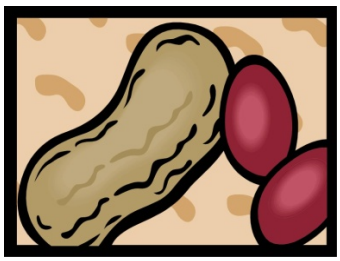
Pork Chop(8&10)

Fish (13&17)

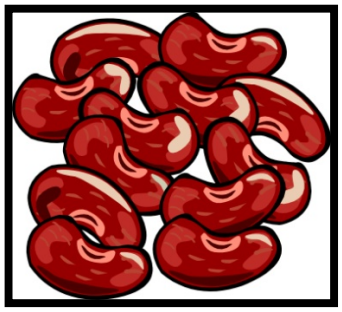


Egg (9&16)

Peanut (2&15)

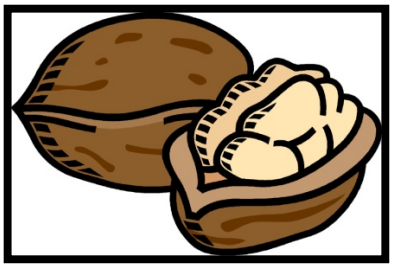


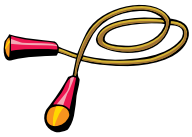
Bean (3&5)



Beef Steak (7&18)

Walnut (6&12)



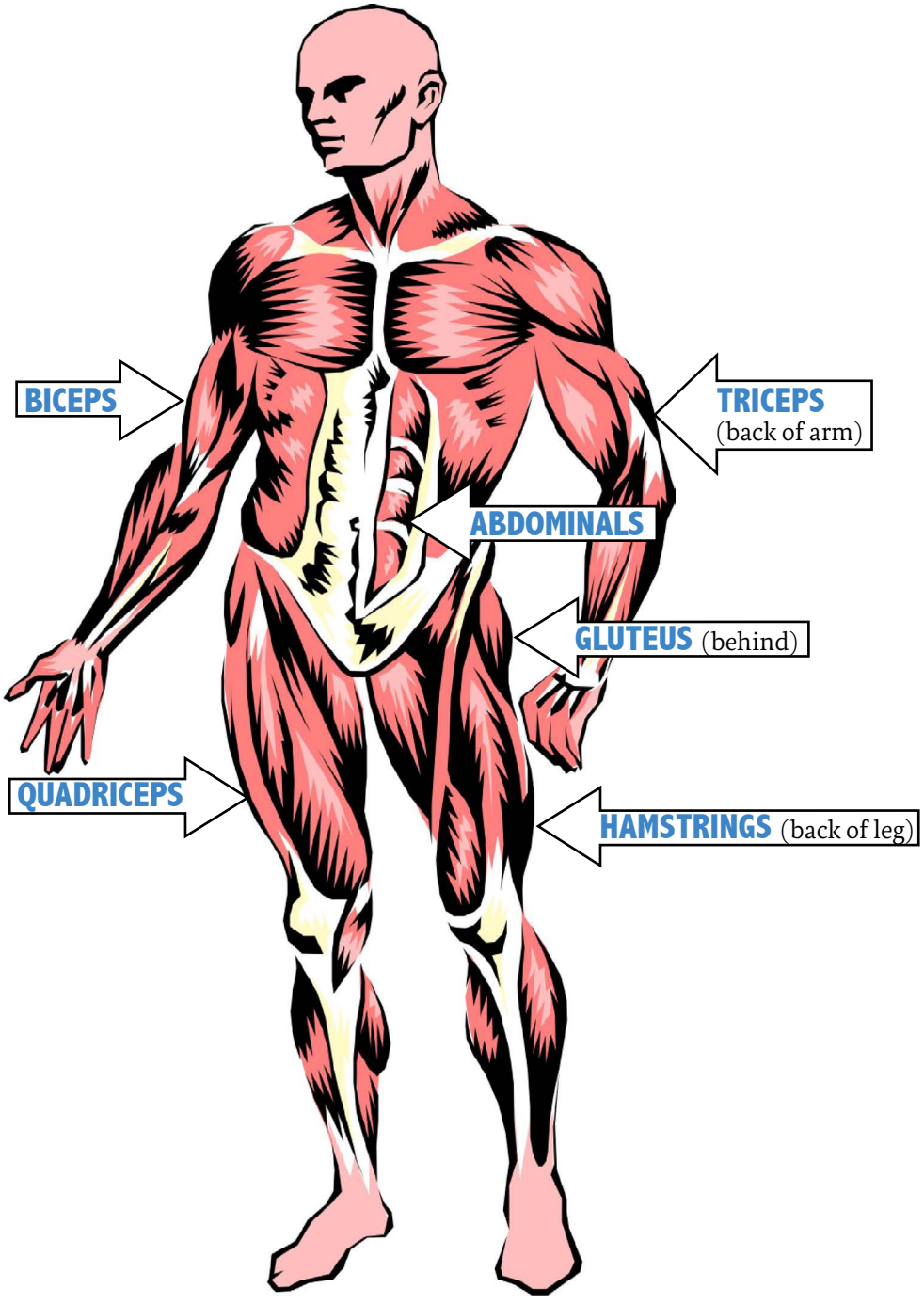


Physical Activity: Protein Hokey Pokey

PRIOR TO ACTIVITY

Familiarize yourself with the names of the muscles provided on the muscle man below. These muscles will be used in the Protein Hokey Pokey.

MUSCLE GUIDE



MATERIALS

- Protein Hokey Pokey lyrics and movements, provided
- Hokey Pokey Instrumental found on A Tisket, A Tasket CD: ASIN: B0001Z92AS, available on Amazon.com for $14.97 (optional)

ACTIVITY INTRODUCTION

You can see lots of muscles on the muscle puzzle! Just like the puzzle, your body is full of muscles, and each one has a special name. Now we will learn a few of their names. After I tell you the muscle name, repeat it with me.

ACTIVITY DIRECTIONS

1. Ask the students to spread out or form a large circle. Demonstrate each of the movements with the muscles.
2. ***Everyone bend your elbow so that your fist is in the air and tighten your arm muscle like this*** (*flex biceps*). ***This muscle*** (*point to your bicep*) ***is called a "biceps"*** (*students repeat*).
3. ***Now turn your arm so that your elbow faces forward and tighten the muscle on the back of your arm like this*** (*flex triceps*). ***The muscles on the back of your arm are called "triceps"*** (*students repeat*).
4. ***Straighten your leg out in front of you. When you do this, you are using the muscles on the front part of your thigh. These muscles are called "quadriceps"*** (*students repeat*).
5. ***Now bend your knee. When you do this, you are using the muscles on the back of your legs, called "hamstrings"*** (*students repeat*).
6. ***Poke your stomach/tummy and try to tighten your muscles under your skin. The muscles on your stomach/tummy are called "abdominals"*** (*students repeat*).
7. ***Your bottom is a muscle, too. It is called, "gluteus"*** (*students repeat*).
8. ***Great job! Now that you have learned some of the muscle names, we'll use the names to do the Protein Hokey–Pokey! Watch the movement that I do, and let's do them together!*** Ask the children to mirror your actions during the lesson and again during the song while you sing. The song can be accompanied by CD or can be sung to the tune of the original Hokey Pokey song. The movements can be repeated as many times as necessary to fill allotted time. Rather than doing "left" and "right" side movements, this song asks to do movements with both sides at the same time.

MOVEMENTS DURING CHORUS

Turn in a circle while waving hands above your head during the first two lines, and clap to the beat during the last line (*"That's what your body needs").*

Movements during verses:

1. Biceps:
   a. For "in" command: Face forward and bend both arms, putting fists up, and put arms in front of you.
   b. For "out" command: Continue facing forward, keeping arms bent, but rock them back behind you so that your elbows are toward the ceiling.
2. Triceps:

a. For "in" command: Face forward and straighten both arms, turning them so that elbows face forward.

b. For "out" command: Continue facing forward and extend arms back behind you.

1. Quadriceps:
   a. For "in" command: Face forward and kick legs, one after the other.
   b. For "out" command: Continue facing forward and kick legs backward, one after the other.
2. Hamstrings:
   a. For "in" command: Turn around and bend knees one at a time, bringing heels to your bottom.
   b. For "out" command: Face forward and bend knees one at a time, bringing heels to your bottom.
3. Abdominals:
   a. For "in" command: Face forward and stick stomach/tummy out.
   b. For "out" command: Turn around and stick stomach/tummy out.
4. Gluteus:
   a. For "in" command: Turn around and stick bottom out.
   b. For "out" command: Face forward and stick bottom out.

LYRICS

(First verse)
*Put your **biceps** in*
*Put your **biceps** out*
*Put your **biceps** in*
And you shake them all about

(Chorus)
You'll keep your muscles healthy
If you eat your protein foods
That's what your body needs!

(Second verse)
*Put your **triceps** in*
*Put your **triceps** out*
*Put your **triceps** in*
And you shake them all about

(Chorus)
You'll keep your muscles healthy
If you eat your protein foods
That's what your body needs!

(Third verse)
*Put your **quadriceps** in*
*Put your **quadriceps** out*

*Put your **quadriceps** in*
And you shake them all about

(Chorus)
You'll keep your muscles healthy
If you eat your protein foods
That's what your body needs!

(Fourth verse)
*Put your **hamstrings** in*
*Put your **hamstrings** out*
*Put your **hamstrings** in*
And you shake them all about

(Chorus)
You'll keep your muscles healthy
If you eat your protein foods
That's what your body needs!

(Fifth verse)
*Put your **abdominals** in*
*Put your **abdominals** out*
*Put your **abdominals** in*
And you shake them all about

(Chorus)
You'll keep your muscles healthy
If you eat your protein foods
That's what your body needs!

(Final Verse)
*Put your **gluteus** in*
*Put your **gluteus** out*
*Put your **gluteus** in*
And you shake it all about

(Chorus)
You'll keep your muscles healthy
If you eat your protein foods
That's what your body needs!

SUMMARY

Great job everyone! Remember...you have muscles all over your body, and your muscles need protein from the Protein Foods group to stay healthy!

Snack: Protein Pinwheels

NUTRITIONAL ANALYSIS

Nutrition Facts

Serving Size (68g)
Servings Per Container

Amount Per Serving

Calories 80	Calories from Fat 15
	% Daily Value*
Total Fat 1.5g	**2%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 5mg	**2%**
Sodium 270mg	**11%**
Total Carbohydrate 13g	**4%**
Dietary Fiber 2g	**8%**
Sugars 3g	
Protein 5g	

Vitamin A 60%	• Vitamin C 10%
Calcium 8%	• Iron 8%

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

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

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

SERVINGS: 3

SERVING SIZE: 2 pinwheels

INGREDIENTS

- Whole wheat tortilla – 1
- Hummus – 2 Tablespoons
- Low-sodium turkey slices – 3
- Fresh spinach leaves (thoroughly washed and dried) – 6 to 8
- 1 medium carrot (shaved, shredded, or matchstick-cut)
- Optional: Can of garbanzo beans, used only to
- illustrate during explanation of hummus

UTENSILS

- Plates
- Toothpicks
- Serrated knife
- Cutting board

Optional: vegetable peeler to shave carrots

DIRECTIONS

1. Spread 2 Tbsp. hummus on one tortilla.
2. Lay 6 to 8 leaves of spinach on the hummus, covering the surface evenly.
3. Place three slices of turkey on spinach, covering the surface evenly.
4. Pile carrots in a line about 3 inches from the edge of the tortilla.

5. tortilla around the carrots (the carrots will be at the center of the pinwheel).
6. Continue rolling the tortilla until it is completely rolled up.
7. Place one toothpick through the flap of the tortilla, about 2 inches from the end of the roll.
8. Continue placing toothpicks approximately 2 inches apart (6 toothpicks per tortilla).
9. Use the knife to cut between the toothpicks.
10. Serve on plates.
11. The snack size for each child will be two pinwheels, which is 1/3rd of a tortilla. Each tortilla yields 3 servings.
12. The toothpicks will hold each pinwheel together, but it is recommended that you remove them prior to serving the snack.
13. If serving to students, each student will receive one pinwheel. Make enough tortilla rolls so that there are enough pinwheels for each student to have a sample.

NOTE TO EDUCATOR

When making this recipe in class, serve each student one pinwheel. This is the class snack size, which will serve six students.

COMMONLY ASKED QUESTIONS:

Q: Why is it important for children to eat the recommended amounts of protein?

A. Children are growing every day at a faster rate than adults, so their bodies need protein to support healthy development and growth.

Q: Why is it important to eat different foods from the Protein foods group?

A. Each food from the Protein Foods group provides different amounts of nutrients that your body needs. If you eat the same kind of food all of the time, then your body gets lots of some nutrients and may be lacking in others. Eating a variety of protein foods gives your body lots of different types of nutrients, which keeps you healthy.

Q: Can vegetarians eat enough protein to stay healthy?

A. Vegetarians that eat a variety of beans, nuts and seeds can get plenty of protein in their diets. Vegetarian protein sources may lack certain nutrients and amino acids, so a diet with a variety of foods is important to maintain good health.

Q: What amount of protein foods is recommended for children to eat every day?

A. MyPlate recommends that children between the ages of four and eight eat three to four ounces of foods from this food group every day.

Q: What is considered an ounce from the Protein Foods group?

A. Each of the following foods from the Protein Foods group are considered to be equivalent to an ounce: one ounce of meat, poultry or fish, ¼ cup cooked dry beans, one egg, one tablespoon of peanut butter, and ½ ounce of nuts or seeds.

Q: Why is bacon considered to be an unhealthy meat?

A. Bacon has a large amount of fat and cholesterol per serving, so it is not a very good source of protein. Too much fat in the diet puts people at risk for heart disease and weight gain. For this reason, bacon should not be eaten as a regular source of protein.

Dear Parent or Caregiver,

Today, your child learned about the Protein Foods group. The Protein Foods group contains foods such as chicken, beef, pork, fish, beans, nuts, and seeds. Eating a variety of these foods as a part of a balanced diet is important because they provide the body with protein that helps build healthy muscles. In today's lesson, we used a Muscle Puzzle activity with riddles about protein foods to build a puzzle of the muscle system. Your child learned the names of some of the muscle groups and played the Protein Hokey Pokey using those names. Ask your child to show you their biceps and triceps muscles. You'll be amazed at how much they have learned!

Parents and caregivers play a big part in making sure their children eat healthy foods. You can provide a healthy protein food snack to your child by making the recipe for Protein Pinwheels printed on the back of this letter. The Protein Pinwheels contain turkey and hummus - two different healthy protein foods. Below are some tips to help your child eat a variety of healthy protein foods:

- Try choosing lean protein foods and cooking them with low-fat methods like grilling or baking.
- Allow your child to choose less familiar protein foods at the grocery store.
- Try serving vegetarian options like beans or nuts as parts of meals and snacks.
- Visit a local farm with your child to see the animals and plants that are used to make protein foods.

If you are interested in learning more about the Protein Foods Group and other MyPlate food groups, visit www.ChooseMyPlate.gov.

Sincerely,

LESSON 6

Create Your Plate

Concept

In addition to eating healthier foods, it is important for children to eat the right amount of foods from each food group. Children and caregivers are often unaware of how much food children actually need. This lesson teaches children to eat the right amount of foods from each food group at every meal.

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yum
Youth Understanding MyPlate

Background

While young children are not able to control the food environment in which they grow up, educators can play a key role in inspiring students to identify and adopt healthy habits for life despite their environment. According to the United States Dietary Guidelines for Americans, 2010, children consume less than the recommended amounts of fruits and vegetables, whole grains and lean protein sources (1). All of these foods are important for health for different reasons. Fruits and vegetables are important because they contain essential nutrients that cannot be found in other food groups. Fruits and vegetables are nutrient dense, which means these foods are generally high in fiber and anti¬oxidants and low in calories. The Dietary Guidelines for Americans rec¬ommend that Americans fill half their plate with fruits and vegetables at every meal (1). Whole grain foods are high in fiber, certain vitamins and minerals, and energy that can be quickly used by the body. Lean protein sources provide essential amino acids, vitamins, and minerals (1). Foods from the Dairy group supply calcium, a mineral vital for bone health, as well as many other important nutrients. Eating a diet that provides the appropriate amounts of these foods and curtails the intake of excess calories from high fat/high sugar desserts, snacks and sugar-sweetened beverages, in conjunction with an adequate amount of physical activity, can help children and adults maintain a healthy weight and reduce their risk for developing type 2 diabe¬tes, certain cancers, and other diseases (2).

To help Americans implement the recommendations from the most recent Dietary Guidelines for Americans by visualizing the recommen¬ded amount of food to consume from each food group, the United States Department of Agriculture released an updated food guidance symbol in 2010 called MyPlate. This icon replaced MyPyramid as the nation's symbol for proper nutrition (3). The MyPlate symbol depicts a plate divided into the Grains, Vegetables, Fruits, and Protein Foods groups alongside a spot representing the Dairy group.

Consuming the recommended amount of foods from each food group prevents consumption of excess calories, and therefore is a key component for healthy weight management. The Dietary Guidelines for Americans recommend specific child-sized amounts of foods from each food group (1). Because understanding and retaining information on how much food from each food group is needed daily can be difficult, even for adults, a simpler approach promoting balance is used to educate younger students.

Research has shown that the amount of food on a person's plate influences the amount of food consumed (4-6). So, for example, if fruits and vegetables make up the largest part of a child's plate, then they will be consumed in the greatest amount (8). The MyPlate symbol indicates that there is room at every meal to include a nutritious choice from the Grains, Protein Foods, and Dairy groups as well. Since the symbol is a plate, it is easy to see that choices from all five food groups are important for a healthy diet. This basic representation of the Dietary Guidelines for Americans can serve as a visual cue for children as they learn about nutrition.

Extensive research went into developing the recommendations supporting the MyPlate symbol. The www.ChooseMyPlate.gov website was designed by the USDA Center for Nutrition Policy and Promotion to translate the government's complex, evidence-based recommendations used in the development of the MyPlate symbol and accompanying key messages (3). The site provides specific nutrition and physical activity guidance for various target audiences; tools and handouts for consumers, educators, and health professionals; and links to relevant resources that have been reviewed for accuracy (3).

When children learn how to choose the appropriate amounts of food from each MyPlate component, they are empowered to make good choices to support their health at home, school, and even at fast food chains and restaurants. Research has shown that when children obtain knowledge, understand benefits, and have confidence, they are more motivated to make changes (8). These positive changes may help to reverse the overweight/obesity epidemic afflicting children in the United States today.

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2nd Grade Lesson

LEARNING OBJECTIVES

The students will:

- assign foods from each of the food groups to the proper section of MyPlate.
- recognize how much of the plate should be used for foods from each of the food groups.

BEHAVIORAL OBJECTIVE

The students will:

- separate components of a meal into the sections of MyPlate.
- choose appropriate amounts of a variety of foods from each of the food groups.

RECOMMENDED BOOK

Picky Peggy by Jennifer Dussling

FLORIDA STANDARDS

PHYSICAL ACTIVITY

PE.2.C.1: The students will identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

PE.2.L.1.2: The students will demonstrate involvement in physical activities both during and after the school day.

PE.2.L.2.11: The students will categorize food into food groups.

HE.2.P.1.1: The students will demonstrate health behaviors to maintain or improve personal health.

Learning Activity: MyPlate Max

MATERIALS

- 3 large MyPlate Meal Posters, provided
- MyPlate Max Foods food image cutouts, provided
- Sticky tack
- MyPlate Me! Worksheets, provided
- MyPlate Me! Stickers template, provided
- Avery Address labels, 14 per sheet available at any office supply store
- Crayons or colored pencils, if not using stickers

PRIOR TO ACTIVITY

Print the MyPlate Max Foods in color, cut them out, and laminate them. If there are more than 20 students in the class, print duplicate MyPlate Max fruits and vegetable food cutouts. Attach sticky tack to the back of each one. Print the MyPlate Meal posters in color. Attach the MyPlate Meal posters to the board using sticky tack. Print five copies of the MyPlate Me! Stickers. Cut the stickers into columns of seven stickers each. You need enough columns for each student. (One sheet is needed for every four students.)

ACTIVITY INTRODUCTION

You have been learning about MyPlate, and you know about each of the food groups. There are five food groups. Raise your hand if you remember the name of a food group on MyPlate. Call on children to answer. Point to the section of the MyPlate Max poster that corresponds with their answers (Grains, Fruits, Vegetables, Dairy, and Protein Foods groups). After all of the groups are named: *OK, good job class. Now that we know all of the types of foods we should be eating, let's think about how much of each food group we should have on our plates.*

When we look at MyPlate, we see that half of the plate is filled with fruits and vegetables. This is because they are so good for us. Does anyone remember reasons why we should eat fruits and vegetables? After some reasons are given (such as, they have fiber to give a feeling of fullness, and vitamins C and A to help heal wounds). *It's also important for us to eat protein foods to build strong muscles and grains because they give us energy and help us grow. This is why they should take up the rest of our plate. We also need to drink and eat foods from the Dairy group, like low-fat or fat-free milk, low-fat yogurt, and reduced fat cheese. These foods help to protect our bones because they have calcium.*

When we eat a meal, we want it to have a food from every food group – just like MyPlate. Today we are going to read a story about a second grade student named MyPlate Max who eats the right amount of foods from each of the food groups during the day. Today, you are all going to be chefs, and during the story you are going to help make Max's meals. I am going to give each of you a paper food model showing a food that MyPlate Max eats. When you hear me mention the food you are holding, get ready to come up and put your paper food model on the part of the plate where it belongs. I will tell you when you can come up, so be sure to be listening. For example, if the story says that MyPlate Max ate an orange, when I tell you to do so, the person who has an orange will stand up and place it on the Fruit group section of MyPlate. If you aren't sure, the class can help you decide where your food goes. At the end of each of Max's meals, we will see if MyPlate Max ate the right amount of foods from each of the food groups. (Distribute one paper food model to each student. Show each model to the students and ask them to call out the name of the food as you do this to ensure that everyone knows the names of the foods. Ask the students to sit on the floor in front of you and the board with the MyPlate Posters.)

ACTIVITY DIRECTIONS

"Time to get up," MyPlate Max thought. The sun was rising, and he knew it was time to get ready for school. "I wonder what Mom is making for breakfast." After he brushed his teeth and got dressed, MyPlate Max went into the kitchen.

"Good morning, Max," said Max's mommy. "I know you need to pay attention and be ready to learn new things at school today, so let's make a breakfast with all of the foods you will need to do your very best." Max and his mom worked together to make his breakfast. Max was in charge of making the fruit parfait. He added some low-fat yogurt, strawberries, blueberries, and peaches to a bowl and mixed everything together. Max's mommy was in charge of making the veggie omelet. She scrambled an egg and added some spinach and sliced cherry tomatoes before cooking the egg. She served it with a slice of whole wheat toast. "Spinach...for breakfast?" Max said. "Try it!" said Max's mom. It tasted delicious!

1. Let's go over all the foods that Max had for breakfast. First, let's talk about the fruit parfait. Students with the strawberries, peaches and blueberries should come to the front of the room to place these foods on the section of the plate where they belong. If you aren't sure where your food belongs, we will decide as a class. (After the students put their food models in the proper section make the following statement. Repeat this process after each section of the plate is filled.) The strawberries, peach and blueberries belong to the FRUITS group. Okay, the fruit parfait had another ingredient. Low-fat yogurt. Who has the low-fat yogurt? Come up to the front of the room and place this food on the section where it belongs. The yogurt belongs to the DAIRY group. Now, let's talk about the veggie omelet. If you have the egg come to the front of the room and place it on the section of the plate where it belongs. The egg belongs to the PROTEIN FOODS group. Now, the students with the cherry tomatoes and spinach should come up to the front of the room and place these foods on the section of the plate where they belong. These foods belong in the VEGETABLES group. The last part of the meal was the whole-wheat toast. If you have the whole wheat toast, come to the front of the room and place it on the section of the plate where it belongs. The whole-wheat toast belongs to the GRAINS group. So what do you think, class? Does this breakfast have foods from each of the food groups? Yes! How much of the plate is filled with fruits and vegetables? (Half.) Yes! Is that the right amount of fruits and vegetables? Yes! Good job, MyPlate Max.

At school, MyPlate Max was able to listen and learn well because he had good food in his tummy. But by lunchtime, he was hungry! In PE, Max played soccer with his classmates and used a lot of energy. In math, he used his brain and had to think very hard because he learned something new. MyPlate Max knew that eating the right amount of foods from each food group helped him to do these things.

So when he got into the lunch line, MyPlate Max was excited to see that it was chicken quesadilla day! (Ask the students: Have you ever heard of or eaten a chicken quesadilla? Let's see what Max tells us about his chicken quesadilla.) Max thought about the foods that are part of a chicken quesadilla. There is a whole grain tortilla, chicken, beans, green peppers, and reduced-fat cheese. He also decided to have some carrot sticks on the side. He made sure to grab some grapes, too.

2. So let's go over what Max had for lunch. His chicken quesadilla included more than one food group. I will name the ingredients again. When I say

the name of the food, if you have that food, come up and put it on MyPlate Max's lunch plate. Chicken (have each student come to the front of the room and put their food model on the section of the plate where it belongs before calling out the next food item), whole wheat tortilla, beans, and reduced-fat cheese. So the chicken goes in the PROTEIN FOODS group. The beans also go in the PROTEIN FOODS group. The whole-wheat tortilla goes in the GRAINS group. The reduced-fat cheese goes into the DAIRY group. If you have the carrot sticks and green peppers, come to the board and put your foods on the plate where they belong. Carrots and green peppers belong in the VEGETABLES group. And finally, who has the grapes? This food belongs in the FRUITS group. Let's take a look. Did Max get all the foods from every food group again? Does he have the right amounts? Yes! Half of Max's plate is filled with foods from the Fruits and Vegetables groups, and he also has a serving of food from the Grains, Dairy, and Protein Foods groups. And look how colorful his plate is.

After lunch, it was time for recess. MyPlate Max played on the playground with his friends. Then he went back to class and learned more new things. At the end of the school day, he went to after-school care and started his homework. Finally, MyPlate Max's mom picked him up at the end of the day.

Sometimes, Max and his mommy ate at restaurants for dinner for special treats or on days when Max's mommy had to go back to work in the evening. Max loved helping his mom cook dinner at home with his favorite foods from MyPlate, but he was glad that there were some MyPlate meal options even when he was eating at a restaurant. Max ordered a kid's size hamburger, with apple slices and a kid's size serving of French fries. For his drink, Max asked for low-fat milk.

3. Let's talk about Max's dinner. First, I will name all the ingredients of the hamburger. If you have the ingredient that I say, please come to the front of the room and put your food in the section of the plate where it belongs. The bun (pause after each food to allow time for the child to put it on the plate), the hamburger patty, and lettuce are all part of the hamburger Max ordered. The bun belongs to the GRAINS group. The hamburger patty belongs to the PROTEIN FOODS group. The lettuce belongs to the VEGETABLES group. OK, let's move on to the apple slices. Who has the apple? They belong to the FRUITS group. Who has the French fries? French fries are made from potatoes, which means they belong to the VEGETABLES group. But does anyone know why French fries are not the best choice from the Vegetables group? (Answer: To make French fries, lots of fat is added because the potatoes are fried in oil.) Even though a regular potato would be the best choice, lots of restaurants serve fries instead. Kids should only have a small amount of French fries, and only once in a while. Did you know a "kid size" serving is only about FIVE fries? French fries are not the best vegetable to eat at meals. Does anyone have any ideas for vegetables we can eat for dinner that are NOT fried? (Some examples of answers include: baked potato, carrots, broccoli, squash, etc) Finally, who has the low-fat milk? The milk belongs to the DAIRY group. Did Max get all the foods from MyPlate? Yes, he did!

So, we can see that MyPlate can work for any meal that we eat, whether we are eating at home, in school, or at a restaurant. Max always filled half his plate with fruits and vegetables, and made sure to get enough protein foods, dairy, and grains, too. When you are eating a meal at home, in school, or at a restaurant, think about the food groups on MyPlate to see if you are getting all the foods you need to be ready to learn and play.

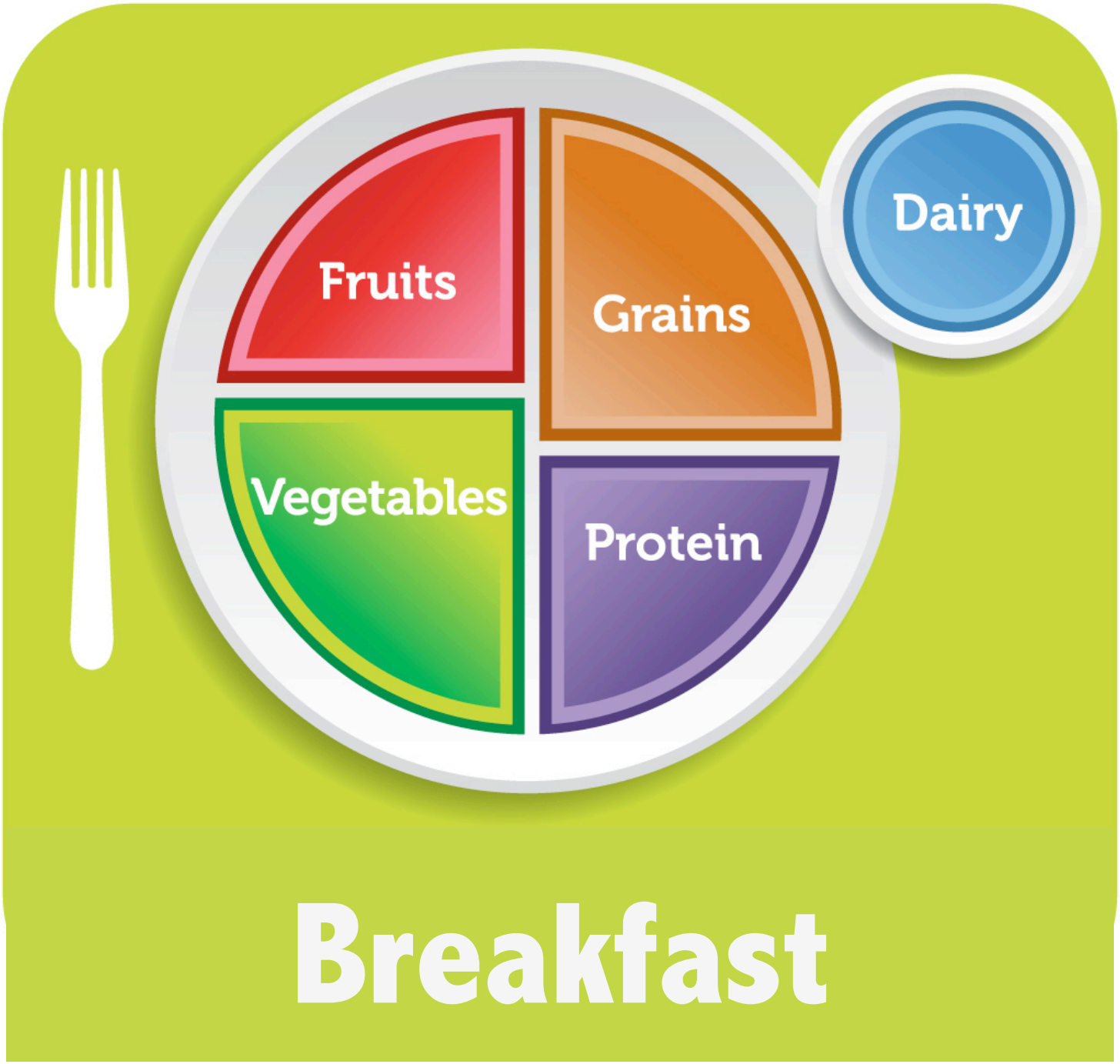
You were all such helpful chefs! Every student had a food that helped make sure that MyPlate Max ate enough food from every section of MyPlate! Now, it is time to go back to your desks. I gave each of you a worksheet that has a drawing of a plate that looks like an empty MyPlate.

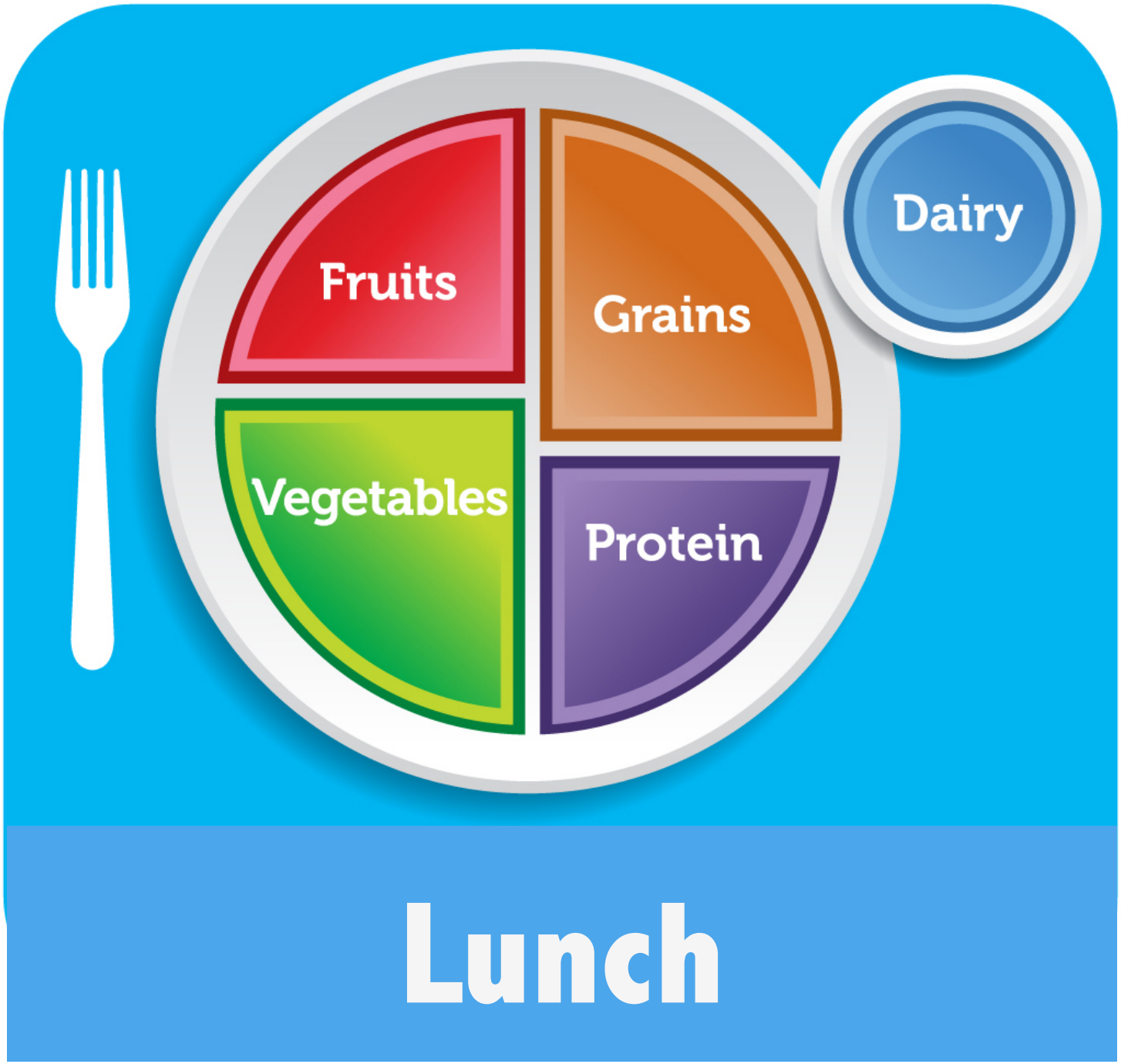
If using stickers:

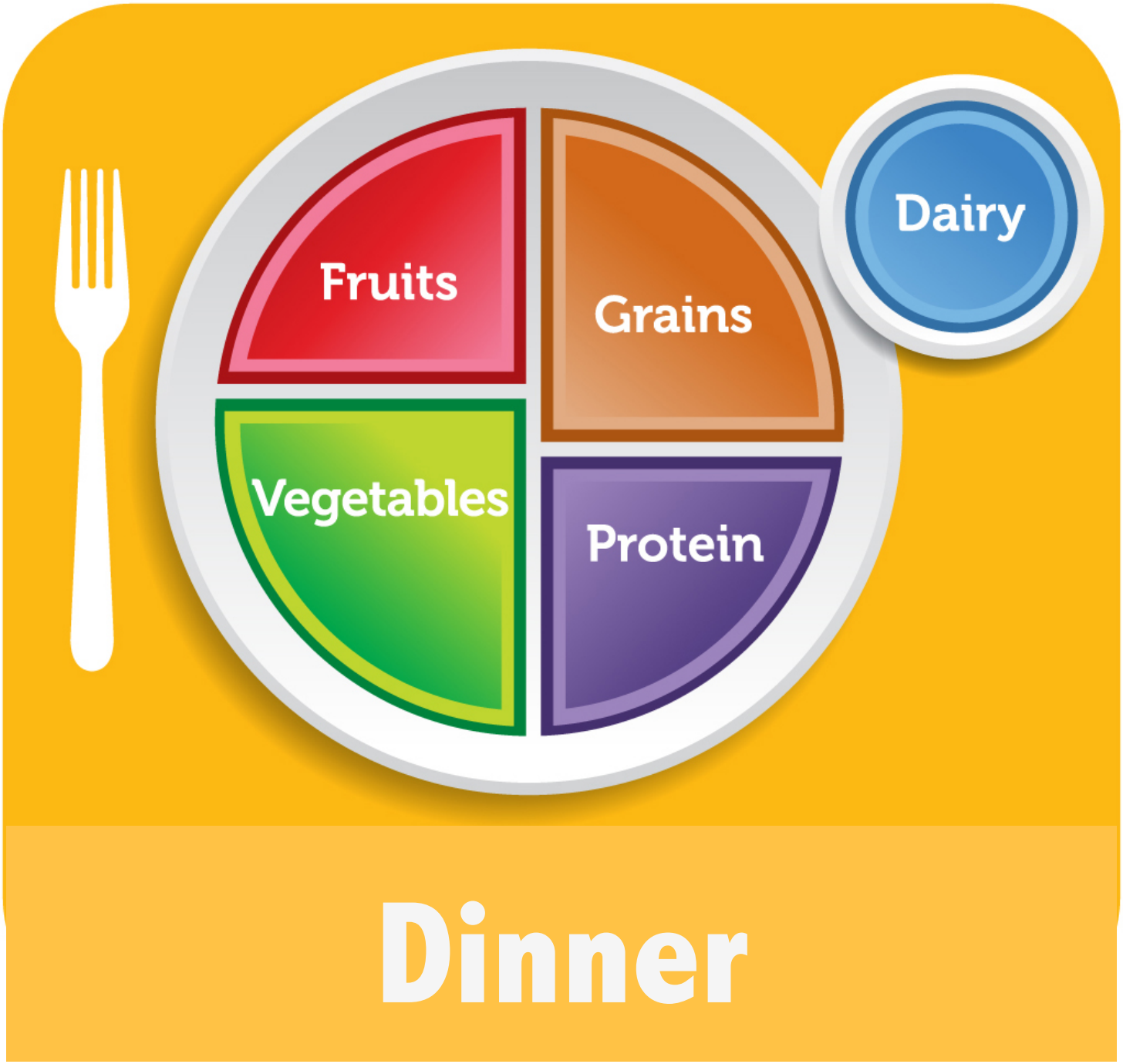
Write your name on top of the paper. Each of you will get some stickers with foods on them. Place the sticker on the section of MyPlate where the food belongs. After you have placed all of the stickers on your plate, look at the foods and decide whether it looks like a breakfast, lunch or dinner meal. Write the name of the meal on the line on the paper.

If not using stickers:

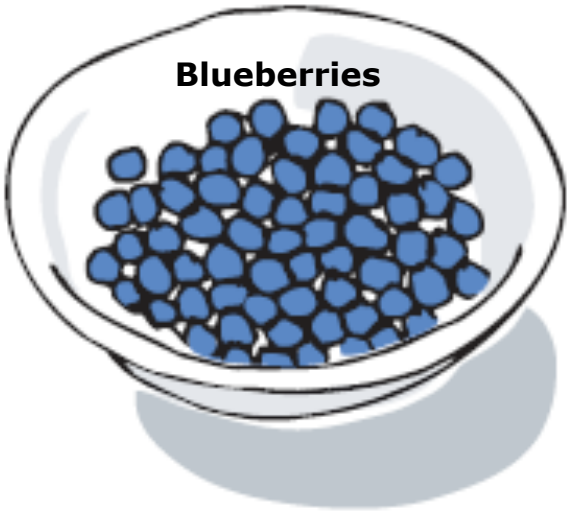
Write your name on top of the paper. Next, think about your favorite meal and the foods that you could eat to be sure to get foods from each of the food groups. Draw pictures of these foods in the section of the plate where they belong. Remember, just like MyPlate Max, you want to have a food from each of the food groups at your meal. On the big line below the plate, write the name of the meal for which you drew pictures.


Fruits
Grains
Dairy
Vegetables
Protein
Breakfast

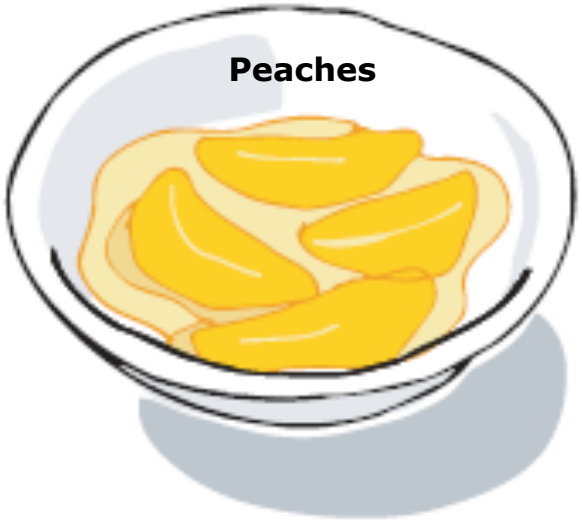

Fruits
Grains
Dairy
Vegetables
Protein
Lunch


Fruits
Grains
Dairy
Vegetables
Protein
Dinner

Blueberries

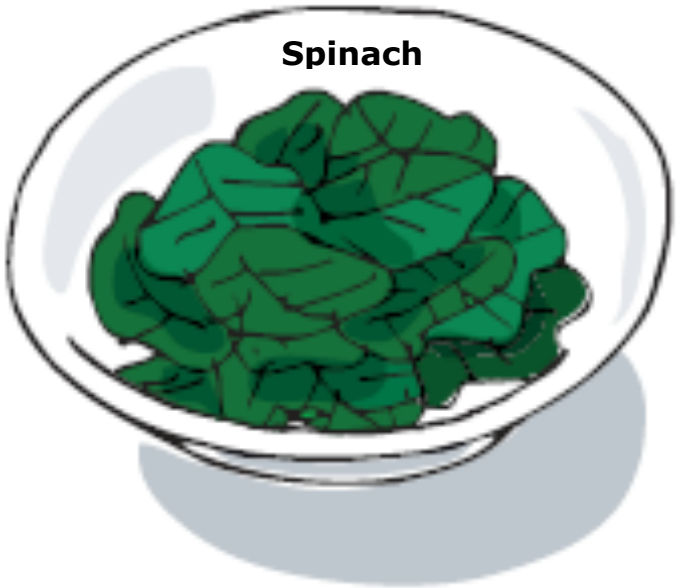


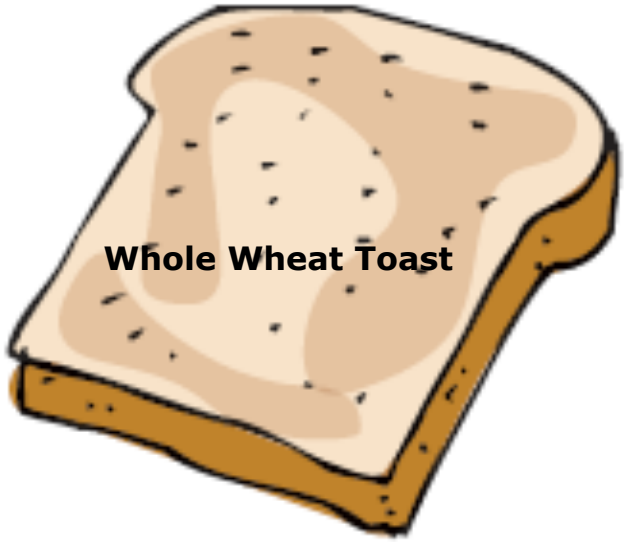
Peaches



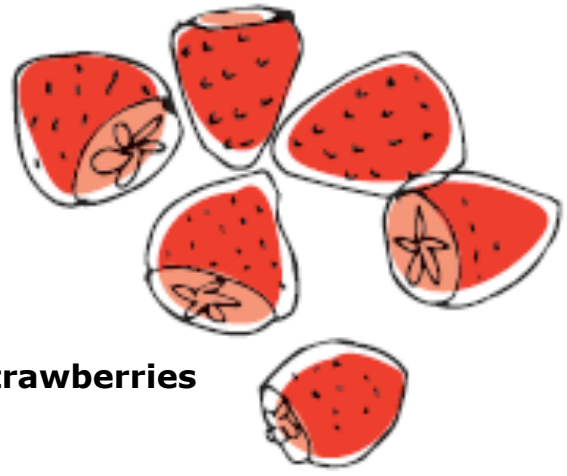
Eggs

Spinach





Whole Wheat Toast



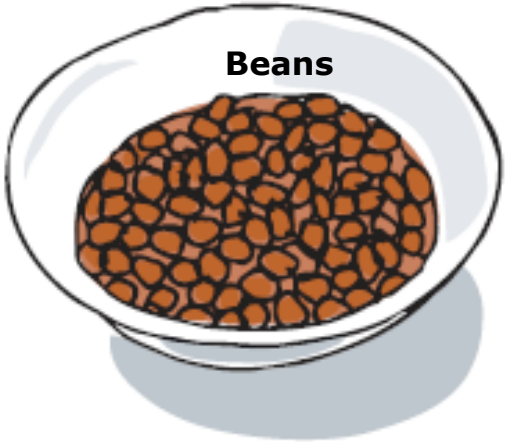
Strawberries

Cherry Tomatoes

Carrot Sticks

Reduced Fat Cheese

Beans



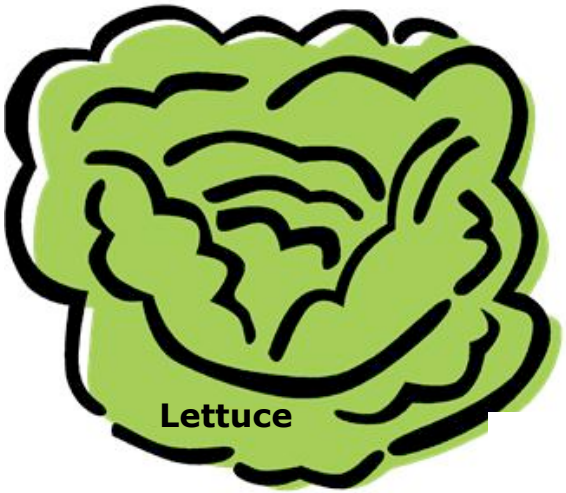
Chicken

Grapes

Hamburger Bun

Whole Wheat Tortilla

Hamburger


Lettuce

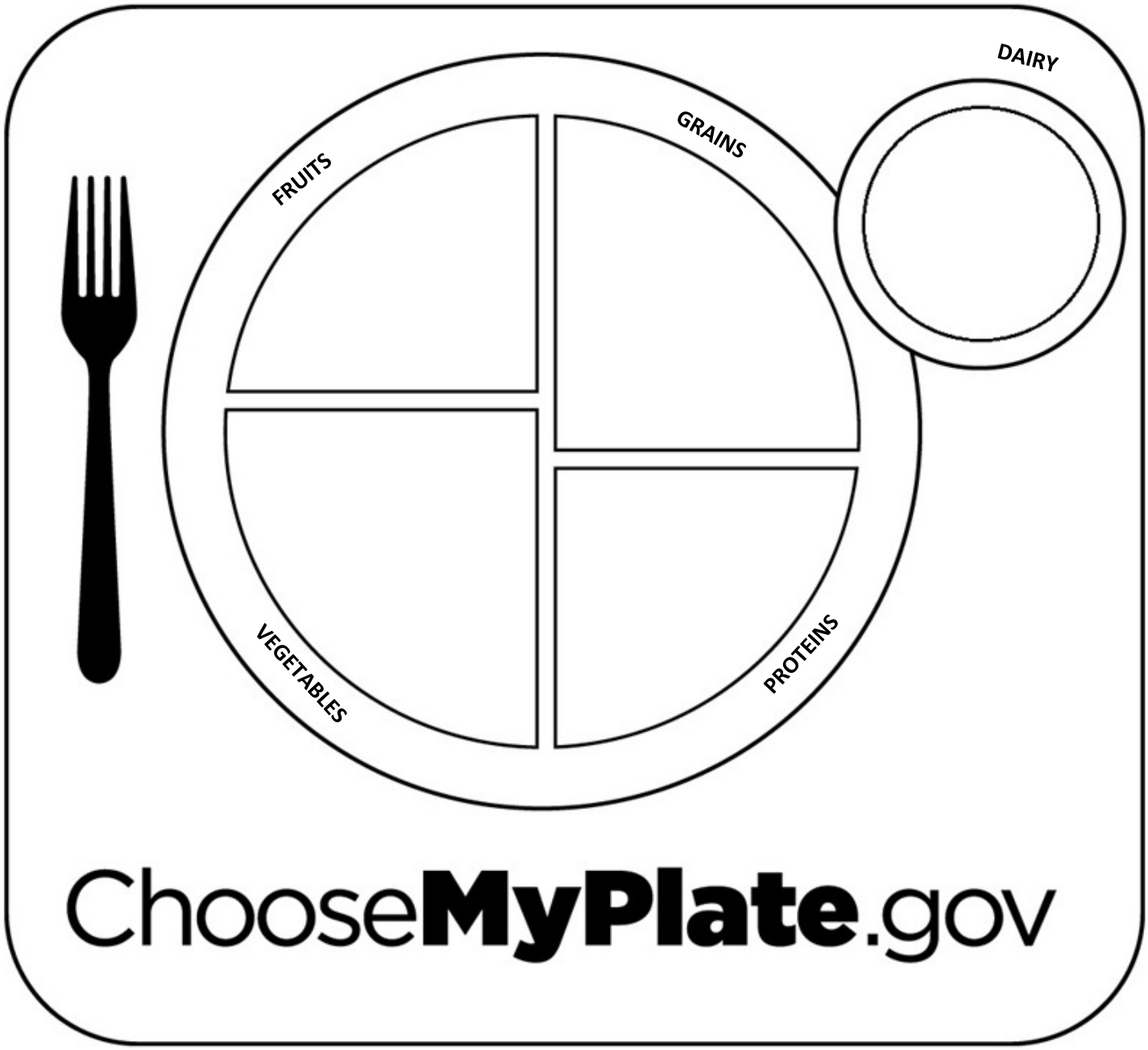

Apple


French
Fries

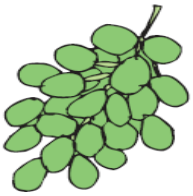

fat-free
Milk
Chug
10 oz.


Green Peppers

MyPlate *Me!*



The USDA and the University of Florida IFAS Extension are equal opportunity providers and employers. The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact 1-866-762-2237. TTY/TTD/FRS dial 711. This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP.



GRAPES

ORANGE SLICES

BANANA

BROCCOLI

CELERY

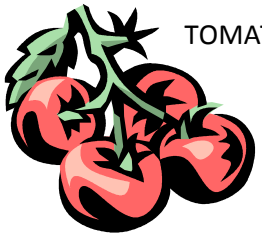
SALAD

NOODLES

BAGEL

PEANUT BUTTER

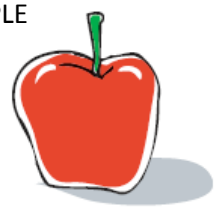
SWEET POTATO



TOMATO

EGG

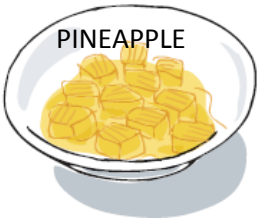
APPLE



CHICKEN

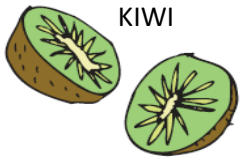
CHICKEN

PINEAPPLE



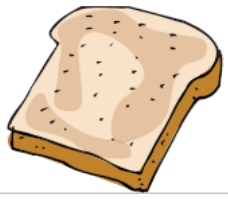
CARROT STICKS

KIWI

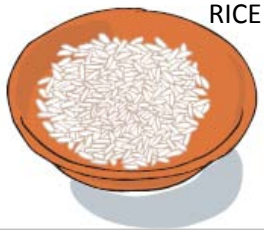


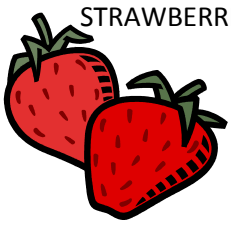
SPINACH

BREAD



RICE

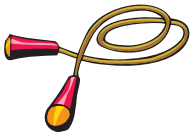




STRAWBERRIES

MUSHROOM

GRAPE JUICE



Physical Activity: Food Group Corners

MATERIALS

- Step Up to MyPlate PowerPoint (StepUpToMyPlate.pptx)
- If the classroom does not have PowerPoint projection capabilities, this presentation can be printed, one slide per page. For additional directions for classrooms that don't have PowerPoint projection capabilities, refer to the detailed instructions provided at the end of the lesson.
- Suggested Song: "The Beat of Our Bodies" by Jump with Jill. (Available for download on iTunes and Amazon.)

  ** Alternatively, any upbeat, kid-friendly song should work well with this activity.*
- Red, orange, green, purple, and blue felt. Use the quarter circle template provided to cut the red, orange, green and purple felt into quarters. Use the circle template to cut the blue felt into small circles. You can find 8.5 x 11 inch felt sheets in a variety of colors at craft stores. You will need 18 sheets for each color.

ACTIVITY INTRODUCTION

Now, we are going to play a game that will get us moving. It is called Step Up to MyPlate. I will hand each of you your very own MyPlate to use during this game. Arrange it just like this one at the front of the room. Place the blue Dairy group in the center; the orange Grains group goes in the top right section; the purple Protein Foods group goes in the bottom right section; the green Vegetables group goes in the bottom left section; and the red Fruits group goes in the top left section. To start, stand in the center of the plate, on the blue Dairy group. When the music starts playing and the screen shows a picture of a food, you need to jump on the section of the plate where that food belongs. So, if grapes come on the screen, jump on the Fruits group, which is the red section of the plate. Then, if a carrot comes on the screen, jump on the Vegetables group, which is the green section of the plate. The picture of the food will keep changing, so be sure to stay focused and ready to jump onto the next section of MyPlate. Remember, the Fruits group is red. The Vegetables group is green. The Protein Foods group is purple. The Grains group is orange. And today we are putting the Dairy group in the center, which is blue. Let's practice. First we will go through the pictures of the foods, say what they are, and then call out the name of the food group to which they belong. Then, we will do it to some music, remembering to jump to the section of the plate to which each food shown on the screen belongs!

First Round

Go through the presentation slides and ask "What food is this?" (Class calls out food name). "What food group does it belong to?" (Class calls out food group) "Can you see that the color behind the food is a clue for us to know which part of MyPlate to jump on?"

Second Round

Begin again at the start of the presentation. To ensure that the music ends at the proper time, begin playing the Beat of our Bodies song when the presentation has reached Slide #2. Continue to call out the name of the food and assist students who are having difficulty. Encourage students to dance in place as they are awaiting the next food to come up on the screen.

If your room does not have PowerPoint projection capabilities

This activity can be done even if you don't have PowerPoint projection capabilities. Print the presentation, one slide per page. Stand in front of the room and show each food for about five seconds before turning to the next image. Using a three ring binder to hold the slides will make it easier to flip from one image to the next. Again, go through the first round by simply calling out the name of each food and the food group to which it belongs. In the second round, play the music and encourage the students to jump to the correct section of MyPlate based on the food shown

Snack: MiPlato Dunkers

INGREDIENTS

- ½ cup black beans
- 1/3 cup canned pineapple tidbits in 100% fruit juice
- 1/3 cup mild salsa
- 1/3 cup shredded reduced-fat cheddar cheese
- 36 baked tortilla chips

UTENSILS

- ½ cup dry measuring cup
- 1/3 cup dry measuring cup
- 1 pint size Mixing Bowl
- Tablespoon
- 18 7-inch paper plates

DIRECTIONS

1. Mix all ingredients (except for the tortilla chips) in a large bowl. Spoon a heaping tablespoon (or 4 teaspoons) of the dip onto each plate. Add 2 tortilla chips to each plate.
2. Pricing and nutrient analysis is based on reduced-fat cheddar cheese and baked tortilla chips.

NUTRITIONAL ANALYSIS

Child Serving Size at School

Nutrition Facts
Serving Size 3 oz (30mL)
Servings Per Container 1

Amount Per Serving	
Calories 35	Calories from Fat 10
	%Daily Value*
Total Fat 1g	**1%**
Saturated Fat 0g	**2%**
Trans Fat 0g	
Cholesterol 0mg	**1%**
Sodium 120mg	**5%**
Total Carbohydrate 5g	**2%**
Dietary Fiber < 1g	**3%**
Sugars 1g	
Protein 1g	
Vitamin A 4% •	Vitamin C 6%
Calcium 4% •	Iron 0%

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

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

Adult Serving Size at Home

Nutrition Facts
Serving Size 12 oz (120mL)
Servings Per Container 1

Amount Per Serving	
Calories 130	Calories from Fat 30
	%Daily Value*
Total Fat 3.5g	**5%**
Saturated Fat 1.5g	**7%**
Trans Fat 0g	
Cholesterol 5mg	**2%**
Sodium 470mg	**20%**
Total Carbohydrate 21g	**7%**
Dietary Fiber 3g	**12%**
Sugars 5g	
Protein 5g	
Vitamin A 4% •	Vitamin C 6%
Calcium 4% •	Iron 0%

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

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

COMMONLY ASKED QUESTIONS

Q: Is it necessary that I print out the large MyPlate posters?

A: No. If you already have MyPlate posters, you can use those instead and simply write the words "Breakfast," "Lunch," and "Dinner" below the posters on the board. Alternatively you could even draw MyPlates on the chalkboard or whiteboard and have students place their food models directly on the board.

Q: If I do not have the time or budget to make the felt cutouts, what are my options for the physical activity?

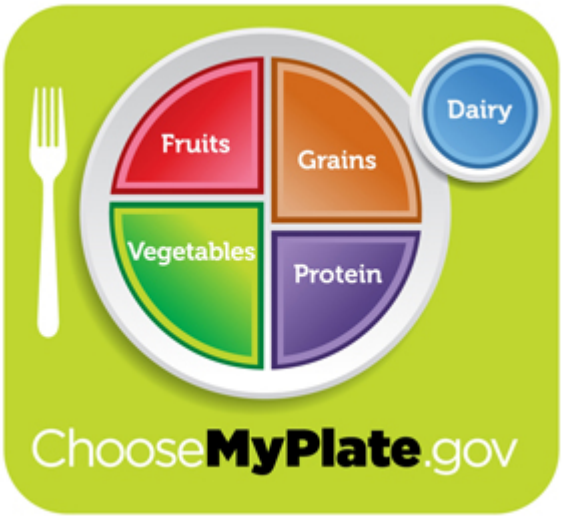
A:: It is possible to complete this activity by instructing the students to "imagine" a MyPlate beneath their feet. Post a MyPlate poster or drawing in the front of the room so students can quickly determine which direction they should jump towards during the game.

Q: How can the snack recipe be modified for students with special food needs?

A: The MiPlato Dunkers will still be delicious even if they are missing an ingredient. In case of a milk allergy, eliminate the cheese from the recipe. If a child has celiac disease, carefully check all package labeling for gluten. Tostito baked chips are gluten free as of June 2013. When in doubt, avoid distributing the snack to a student with special dietary needs.

Dear Parent or Caregiver,

Today your child completed the last lesson of the *Youth Understanding MyPlate* nutrition curriculum. This lesson taught your child about eating the right amounts of foods from the different foods groups. Your child learned how to create a healthy plate by adding foods from the different food group on different parts of the plate. The *MyPlate* symbol below is a great reminder of where the foods need to go.



Parents and caregivers play a big part in helping kids eat healthy. Next time you serve your child dinner, think about the *MyPlate* symbol and make sure that half of your child's plate is filled with fruits and vegetables. Making sure that they are getting foods from each food group will help your child get a variety of food, which is important for good health. You can start by trying the recipe on the back of this letter for *MyPlate* Pitas.

For more information about *MyPlate* and the different food groups, or to learn more about what nutrients your child needs, visit: www.ChooseMyPlate.gov.

Sincerely,