

National Farmers Union "Growing Good Taste"

Section 1: Grades 1-2

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Optional Activities

* Lesson contains a cooperative education component.



For more information contact: National Farmers Union education@nfu.org 202.554.1600 www.nfu.org

Lesson 1: Food Comes From Farms

Unit Objective:	Students will learn food in grocery stores actually comes from farms.
Grades:	1-2
Length:	1 hour: 10 minutes for the opening Q&A, 10 minutes to group them at
	tables and for coloring time, 25 minutes for the "connect the dots" events,
	15 minutes for the domino activity.
Materials Needed:	Tables, crayons, several complete sets of the "Food Comes From Farms"
	coloring pages provided in this section, a package of 9-inch round paper
	plates, a glue stick, dominos (made from six VHS tape boxes), a pencil, and a
	yardstick.
Preparation Needed	: Secure a whiteboard, chalkboard, or flipchart and an appropriate marker.
	Print copies of the "Food Comes From Farms" coloring pages below so
	each child has one page not shared by anyone else. Make dominos by
	printing and cutting out each domino below and affixing it to a VHS tape
	box with glue or double-sided tape. Leave the cassette tape inside to maintain
	weight.
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Background:

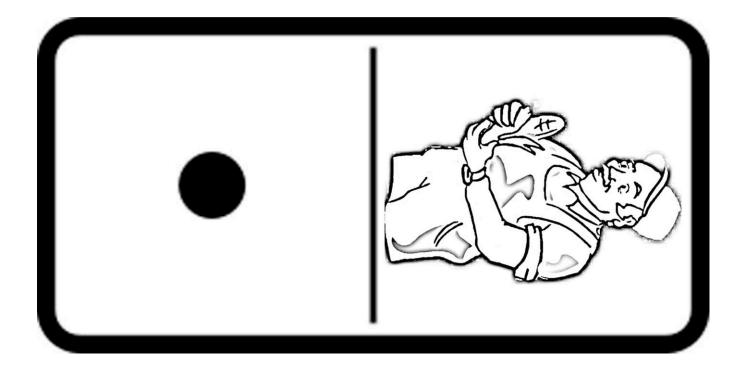
If you ask children (and many adults) where their food comes from, the most frequent answers you will hear are "the refrigerator" or "the grocery store." Even in rural areas, children do not understand the **food supply chain**. This is understandable as children see food coming from a store or restaurant or refrigerator. They do not connect the dots back to the **family farms** that feed America. At the end of this lesson, young children will learn to think beyond the grocery store and develop a better awareness that the food they eat is grown on farms.

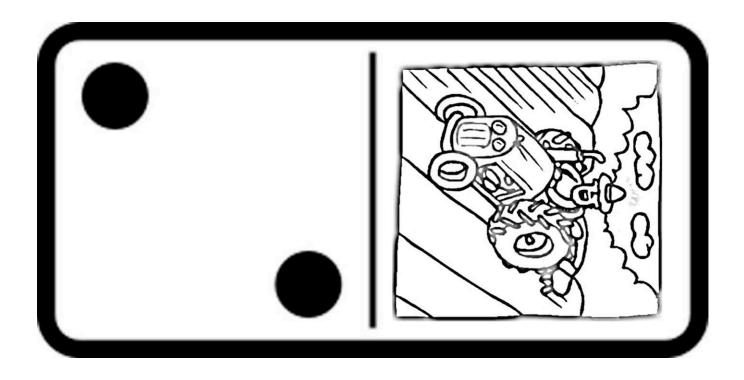
Teaching Strategy:

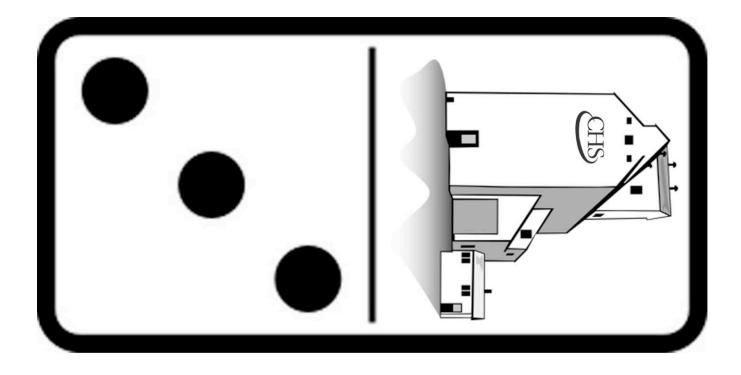
- 1. Begin by asking the children, *Where does your food comes from*? Write the answers on the whiteboard/chalkboard/flipchart so everyone can see them. Be sure to listen for different answers should everyone begin talking at once. After you have listed all the answers provided by the students, ask them to: Raise your hands if you think food comes from a grocery store. Where does the grocery store get its food? Write those answers down. If they do not provide the answer of "farmers," you will want to do so for them. Ask if anyone has, or has visited, a garden. Mention that, Farms are like gardens, except farms are much bigger and the crops farmers grow usually need to be made (processed) into food.
- 2. Make sure each child has one (not all six) coloring page from the complete set of Farmer, Field, Flour Mill, Bakery, Grocery Store, and Toaster (Consumer). If you have fewer than six children, provide each child with two different pages (no two children should have duplicate pages). If you have more than six children, separate them into groups of six at tables with any extras at their own table. Allow time to color the images. Assist the students as they use the glue stick to place the images inside of the paper plates.
- 3. Now ask the children, *Have you ever played connect the dots?* Tell them you are going to play connect the dots to figure out where the food they eat comes from. Have them guess which image comes first, then next, until all six images are in line. The correct sequence will be Farmers, Field, Flour Mill, Bakery, Grocery Store, and Toaster. If they are not sure, ask them to "think backwards" from the toaster. Explain to the students that when they make toast at home they become a consumer. Explain that a consumer is the same as a customer in a store, such as their mom or dad, who buys food to bring home to the family. The hardest one for them to place probably will be the flour mill, which will fall into the middle as they intuitively place the others either before or after. Ask them to number the image they colored with a 1, 2, 3, 4, 5, or 6 as is appropriate. The numbers should be small and located at the bottom of the image. Some children may say the bakery is in the grocery store.

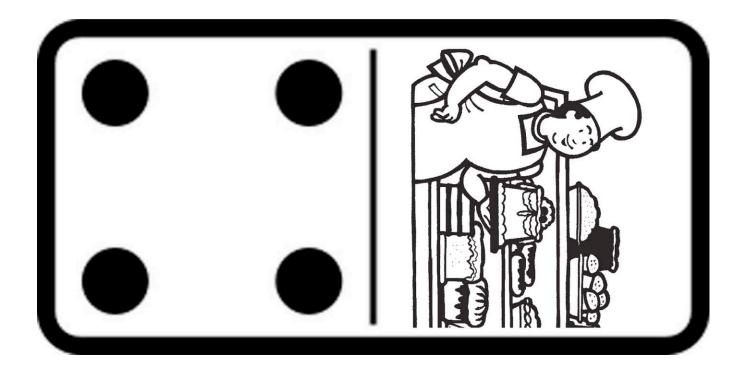
Respond by affirming their observation and adding that in some towns, bakeries are separate businesses.

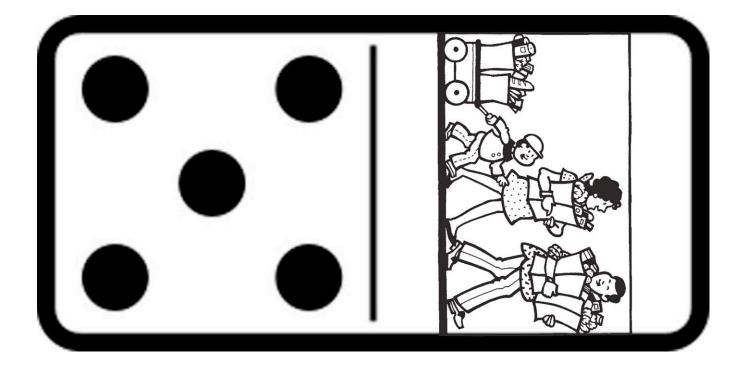
- 4. Write down the numbers 1, 2, 3, 4, 5, and 6 on the whiteboard, chalkboard, or flipchart. Ask them what they think happens in each image they colored. Summarize and write down the answers for each image. Farmers plant and harvest crops. Fields are like big gardens that take a lot of work. A flour mill is where wheat is ground into flour, which is the main ingredient in bread. The bakery is where flour is mixed with other ingredients such as water, yeast, and salt to create dough that is heated in an oven to make bread. The grocery store is where bread is sold to consumers who take it home to make sandwiches and toast.
- 5. Now encourage them to connect the dots by standing in line in the right order. They will find it easier to line up in sequence because they numbered their plates. NOTE: If there are fewer than six children, have each child hold two consecutive dots, one in each hand and in the correct order. If attendance is small, you as an instructor may have to fill in to complete the series. Ask them again, *Where does your food come from?* The answer should be "farms." Now move the child holding the farmer into the middle. Ask the children if this works. *Can a farmer be between the bakery and a grocery store and still have the dots connect?* No, it does not work. Repeat to them that *everything we eat begins with a farmer planting a crop.* TIP: This activity could be repeated for parents who visit the class or at a county convention.
- 6. Ask the children to return their plates to their work areas. Then ask them to line up again in the same order as they were before. This time, have them hook their arms together. What happens when the 'farmer'' tugs at one end? What happens when the consumer tugs at the other end? This is a **food supply chain**. What affects one person, affects the entire chain. Everyone has an important job to do to make sure food is grown, prepared, and delivered to grocery stores or consumers. If one of the ''dots'' cannot do its job, all the other dots have a harder time as well. The most important dot is the farmer. Without him or her, nothing else can begin.
- 7. Gather them around one table on which you already have placed a wooden yardstick. Have the children place in order the Farmer, Field, Flour Mill, Bakery, Grocery Store, and Toaster paper plates on one side of the yardstick. On the other side of the yardstick place the dominos you made in advance from VHS tape boxes. TIP: Practice this activity in advance. You will want to place the dominos so they are far enough apart to cascade with good effect. Use a pencil to highlight the spacing on the yardstick and place each domino alongside each respective mark when you are ready for the demonstration. Be sure to build suspense and excitement. Ask them, *Where does my food come from?* When they say, "From a farm," respond by saying, *Right*, and push the first domino. Set up the dominos and let the students take turns pushing the first domino. *This is how a food supply chain works*. Family Farmers grow food that is passed down the line until comes to our homes or restaurants. What happens if we take away the farmer? No one can push on the field as it has not been planted or harvested. For the same reason, we cannot push on the flour mill to deliver food to the end of the chain. Ask them again, Where does your food come from? This time, the answer should be obvious.

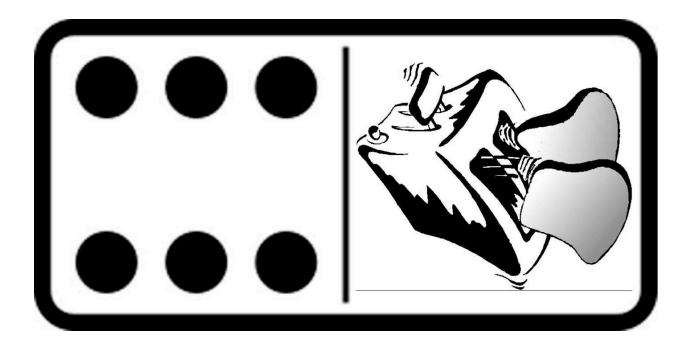




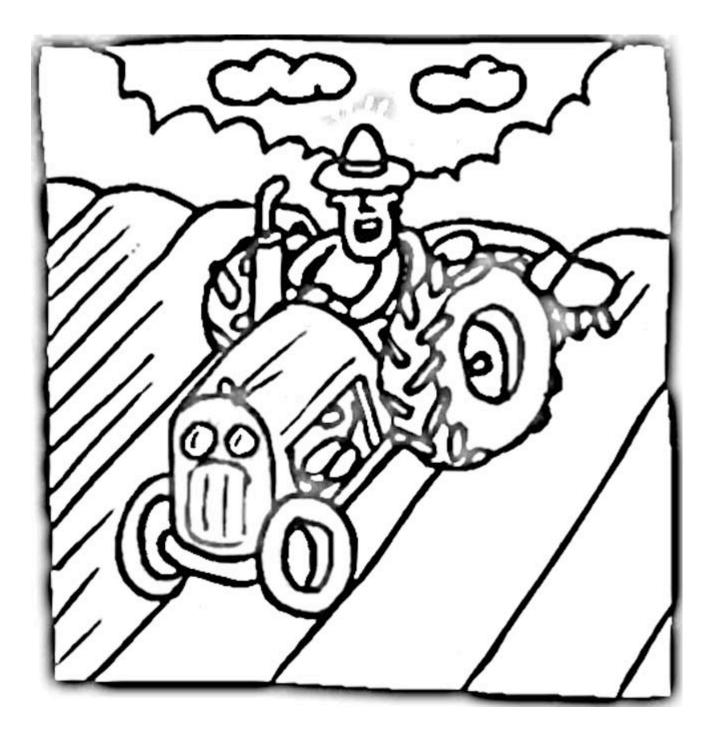


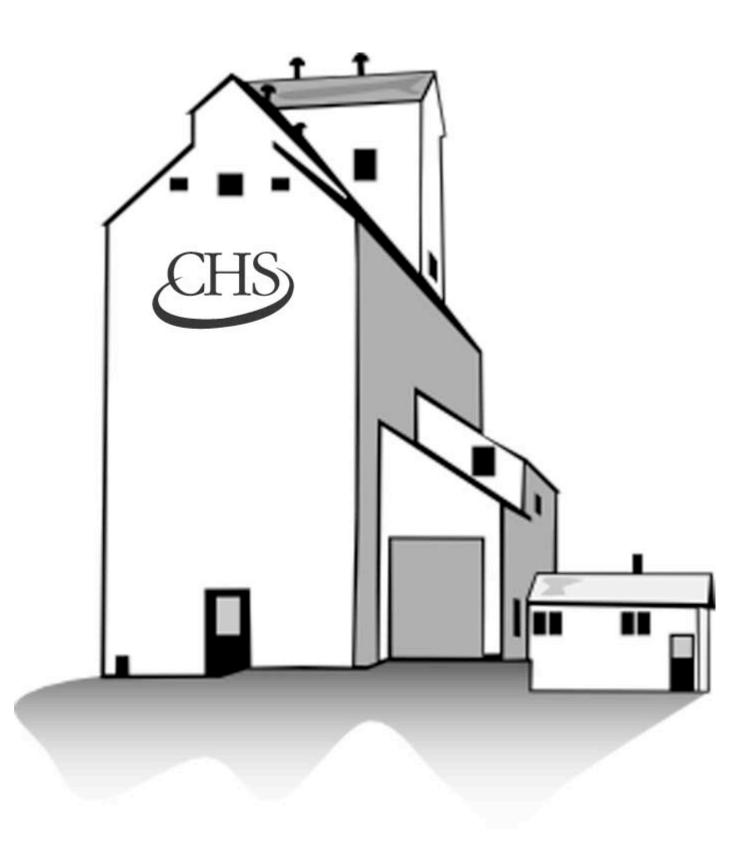


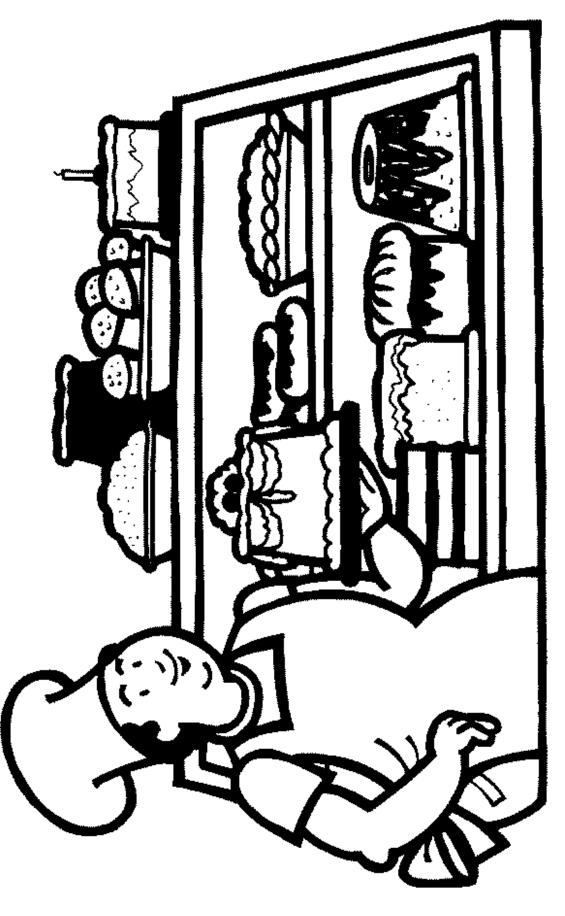




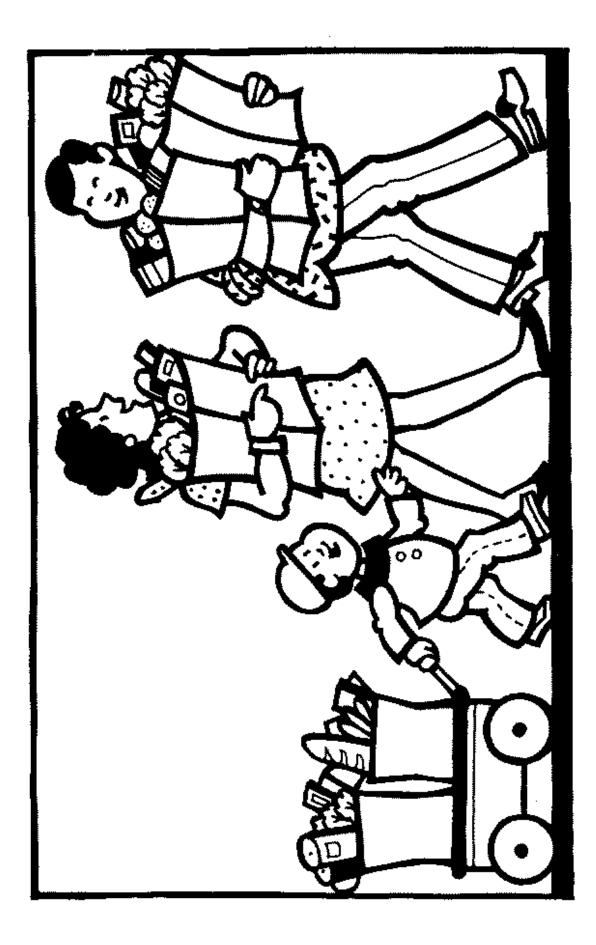


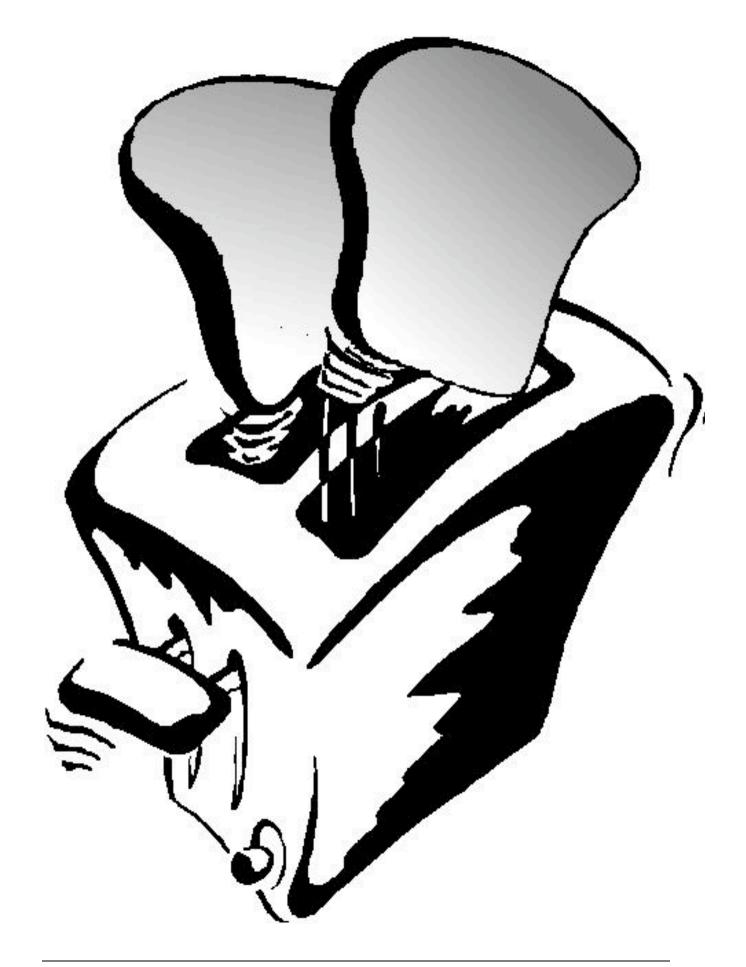






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Lesson 2: Farmer For A Day

Unit Objective: Grades:	Students will learn what farmers do by working on a "tabletop" farm. 1-2
Length:	1 hour: 5 minutes to introduce the concept and place "I'm a Farmer" stickers on the students, 25 minutes to participate in the wheat or dairy tabletop farm activity, 20 minutes for toast and the guest speaker, 10 minutes for the "Gardening, Farming Match-up" and "Farm to Food Match-up" worksheets.
Materials Needed:	Solicit or secure a toy house or barn, a toy tractor, combine, and truck rugged enough to be kid-handled and large enough to do the work explained below. (NOTE: The local implement dealer or stores such as Fleet Farm or TSC may provide a tractor to use or even to be given away in a drawing at the end of the session. Many stores including Walmart, Kmart, and local businesses will carry farm toys suitable for this activity.) Obtain a one-pound bag of flour, a four-slice toaster, a medium paper grocery sack, a yardstick, markers (especially yellow and green), several six-foot sections of butcher block paper, masking tape, wheat kernels in a zip-lock bag and a full head of wheat if possible, baking flour in a zip-lock bag, a flashlight, a small watering can with water, dust-buster style hand-held vacuum, a shaker of parsley, celery flakes or other similar green seasoning, a loaf of bread, butter, peanut butter, and jelly. Print enough copies of the "Farm Chores Checklist," and both the "Gardening, Farming Match-up," and "From Farm to Food" worksheets,
	plus "I'm a Farmer" sticker sheet(s).
For the Optional Da	iry Activity: Obtain plastic dairy cows, an empty milk carton, a box of mini shredded wheat cereal, an empty shoe box, a short flexible plastic tube, a small jar filled with milk, and a stick of butter. NOTE: Your local dairy co-op may provide small milk cartons for you to give to children participating in this class. Also, you will want to invite a Farmers Union member-farmer as the guest speaker.
Preparation Needed	: Spread out the butcher block paper on the typical six-foot-long meeting
	room table. Tape the butcher block paper to the table. This will become your farm. (Butcher block paper may be found in Walmart's craft section, Michael's craft stores, or your local grocery store, at which you may ask the meat department to donate the length you actually need.) Leave a three-foot area at one end of the table for your "field." If you have a suitable toy house or barn, place one or both toward the middle of the table, just next to the edge of the field. Using a yardstick and marker, draw several lines in the field area to represent rows. On the other side of the table, place in order a bag of flour, a loaf of bread, a medium paper grocery sack on which you have used a marker to write "Grocery Store," and a toaster. Make sure the toaster cord is taped down or behind a table against a wall so the children <u>do</u> not trip on it. Print in advance the "I'm A Farmer" images on adhesive sticker project paper or on large adhesive mailing labels using an inkjet printer. This paper is available at most office stores. IMPORTANT: Be sure to invite in advance a farmer as a guest speaker for this event, and then confirm his or her attendance the day before the event.

Background:

Most food from farms doesn't start out looking like food. Young people will not connect a wheat or soybean field to pancakes or salad dressing. By becoming a **farmer for a day**, they will "visit" a tabletop farm to learn what a farmer does to plant, grow, and harvest a crop, and what happens to the crop between the farm and a grocery store. Students will simulate planting wheat, hoping for rain and sun, harvesting the crop, hauling the crop to the mill, taking the flour to the bakery, then trucking the bread to the store and using it to make toast. By working together using **cooperation** the students will learn of **processing** and **consumers**. This session provides a perfect opportunity for an actual farmer to visit with the students.

Teaching Strategy:

Ask the children, *Have you ever visited a farm?* For those who live on a farm, ask them, *Do you know what your parents do on the farm to grow crops or raise livestock?* Remind them that a farm is like a very big garden. In a garden, seeds have to be planted, weeds have to be pulled, plants have to be watered, and then vegetables and fruit have to be picked. A farm takes a lot more work than a garden, yet each requires similar jobs be performed following a schedule. With enthusiasm, tell the students they are going to be "Farmers For a Day." Begin by placing the "I'm A Farmer" stickers on their shirts. Depending on the number of students you have, bring out one or more clipboards with the "Farm Chores Checklist." Look at the checklist. Some activities can be done as a group, others will work best if completed by individuals, either by asking for volunteers or assigning them tasks beforehand. NOTE: If you have an assistant, a larger group, or additional time, you may add the second optional dairy activity outlined below.

- 1. To accomplish all the work to grow food on a farm and get it to the grocery store requires a lot of effort. By working together as a team, we will get an entire summer's work done in just one hour. This is called cooperation. We will cooperate to reach our goal. Reading from the checklist, say, The first chore is to plant the field. Ask them, What does a farmer use to plant a crop? They should point to the tractor. Having a seeder to go with the tractor would be a nice touch, but it is not necessary. By your selection or by volunteer, one student will run the tractor back and forth along the rows to simulate seeding. Encourage other children to make tractor noises during this activity. What sound does a tractor make? It is up to their imagination. This will allow them to be active participants from the beginning. NOTE: As each child completes a task, have him or her mark off the box on the checklist.
- 2. Now you move onto the next step. *What makes the wheat grow? Sun and rain.* Simulate this by having one student hold a flashlight pointed at the field; have a second student sprinkle imaginary raindrops from the watering can. This is a good time to ask, *What happens if the weather is too cold, or too wet, or hail storms hit the farm?* Farmers have no control over the weather. Bad weather every summer can and does completely destroy the crops on some farms. It is a good thing we have a lot of family farmers growing crops every year so we always have food to eat.
- 3. What else grows in gardens and farm fields? Weeds. Explain that weeds can crowd out wheat or other crops. Sprinkle green seasoning such as parsley or celery flakes across the field. Oh, no, weeds are growing in our field. How does a farmer get rid of weeds? The next student will take his or her turn running the tractor across the field to get rid of the weeds. Farmers get rid of weeds by digging them under or spraying them. Use the dust-buster hand vacuum to quickly sweep up the "weeds." Tell the students that, A farmer's field needs lots of attention during the summer.
- 4. Before we harvest the wheat, we have to see it grow. Have all the students take yellow markers and color in the wheat field. After they are done, allow the next-in-line student to harvest the wheat using the combine. Invite all the students to make the sound of a combine during this activity.
- 5. Hold up a clear ziplock-style bag filled with wheat kernels. If possible, show them an actual head of wheat next to the wheat kernels. *The combine cuts the wheat and separates the grain kernels from the plant. Kernels go into the hopper and are transferred into a truck. These kernels are measured in bushels.* A field of wheat can fill up several trucks with kernels. This crop is what a farmer sells to the mill.

Put the zip-lock bag of wheat kernels inside the truck and let a student drive it from the field to the flour bag, which represents a flour mill. Some grain elevators store wheat and others mill it into flour. Milling means grinding the grain kernels and sifting the powder to make flour. Show them the zip-lock bag containing flour. Mills can make different kinds of flour that works best for pancakes, pizza crusts, cookies, crackers, and even spaghetti.

- 6. Now allow a student to use the truck to haul the zip-lock bag of flour to the loaf of bread. Flour can be sold in stores, or it can be shipped to bakeries that use it to make bread. We will pretend this loaf of bread is a bakery. The bread loaf represents the bakery where flour is mixed with salt, yeast, and water into dough. The bread dough is put in pans and baked in ovens to make bread. Bakeries come in all shapes and sizes. Some are right inside grocery stores, others are family-owned and just down the street, and some are large like factories. Larger bakeries have their own trucks that deliver bread to grocery stores. Explain that these bakeries can make thousands of loaves of bread every day.
- 7. Put the loaf of bread into the truck and let the next student drive it to the paper grocery bag marked grocery store. *This sack is at the grocery store. Where will it go from here?* The answer, of course, is home. Explain to the children that a **consumer** is the same as a **customer**: it is someone who buys food for his or her own use at home. A customer at a grocery store buys bread and then takes it home to make sandwiches or toast. Allow one student to "bag the bread" and move it to the toaster.
- 8. It's time for toast! Today, we grew our snack. Of course, it takes all summer to grow a field of wheat. Before you begin, send the children to the nearest sink to wash their hands or hand out wipes for them to clean their hands. Also, be sure to check whether any children may have food allergies regarding bread or peanut butter that may limit their participation in this activity. Explain to the students that it took everyone working together to get food from the field to the grocery store. Rather than let everyone make their own toast, we are going to form a toast cooperative that will make everything go more quickly. What is it called when we work together as a team? Cooperation! We will use cooperation to make toast. As an adult, you will need to run the toaster. Assign students to help with the following duties: one to hand you the bread, one to butter the toast, one to put peanut butter on the toast, one to add jelly, one to pass out paper napkins, and one to pour milk, water or juice. Suggest that cooperation is what people do to accomplish a job that benefits everyone, such as the entire family working together to make dinner. The entire family cooperates to prepare food, set the table, and wash, dry and put away the dishes. As you make toast, you may want to ask the children to join you in this chant: "One slice, two slice, drop right in (have the children crouch down), Ready? Set? Toast pops up. You look so good I'll eat you up." Assist children as necessary with spreading butter, peanut butter, and (optional) jelly.
- 9. While the students are eating their toast, introduce your guest speaker (if one is available). This farmer needs to keep in mind the young age of his or her audience and keep the message simple. He or she should open by saying the children are good farmers themselves. Allow the children to ask questions. If the questions get off course, you as the leader will need to redirect the focus. (Example: *How do we get bacon from pigs?* Answer: *Today we are talking about food that comes from crops we grow in fields*). Mention that your guest speaker is member of Farmers Union. If no guest speaker is available, tell your students the class they are in was put together by Farmers Union. Let them know Farmers Union is an organization of farmers who grow a safe and secure supply of food. Farmers Union also supports healthy diets for all Americans. In fact, Farmers Union helped get hot lunch and milk programs going in schools.
- 10. Provide a brief time for the students to clean up then group them at tables. Pass out the "Gardening, Farming Match-up" worksheet. *Farming is a lot like gardening. Farmers use big equipment to do some of the same jobs that gardeners do. Draw a line from the gardening activity on the left to match what a farmer is doing on the right.* Walk around to coach the students with the answers. Keep an eye on their progress. When it appears they are done, provide them with the

answers. Tell them harvesting by hand is like using a combine to harvest a field, hoeing is similar to plowing as it prepares dirt for the seeds; a wheelbarrow is like a truck as it carries loads, and a garden is like a field as it is where plants grow.

- 11. Pass out the "From Farm to Food" worksheet and ask the students to place a "W" over food items mostly made from wheat and an "M" over items mostly made from Milk. Bread, pancakes, and cookies are made from wheat. Cheese, ice cream, and milk are made from milk.
- 12. Close the activity by saying, Today we did the work of a farmer and we learned how to cooperate as a team. It takes an entire summer for a farmer to plant, tend, and harvest a crop. Dairy farmers, and many other types of farmers, also work from the early morning to late at night. The food you see in a grocery store comes from farms. Without farmers, we would be hungry. Without farmers, many people would not have jobs. The next time you make toast, think of the all the hard work a farmer does to grow your food.

OPTIONAL: If you have enough students and another youth leader, or enough time, you may want to use the following as a concurrent or additional activity to the wheat farm. To prepare, spread out the butcher block paper on the typical six-foot-long meeting room table. Tape the butcher block paper to the table. This will become your dairy farm. Leave a three-foot area at one end of the table for your "pasture." In the middle, place a toy house if you have one that is appropriate for the space available. Also place an empty shoebox on its side at the end of the pasture where you placed the farm home. This will be your dairy parlor. To the other side of the table, place in order a milk carton or jug, a small paper grocery bag, and a toaster. Make sure the toaster <u>cord is</u> taped down or on the backside of a table against a wall to assure the students do not trip on it. Use green and yellow makers to create a pasture on the open end of the table: all you need to do is fill in a few patches of color. Then place dairy cows in this area. If you choose to do this dairy activity, here is the sequence of events.

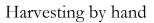
- 1. Reading from the checklist, say, *The first chore is to feed the cattle*. Ask them, *What does a farmer use to feed cattle*? They should say, "Hay." *To accomplish all the work to grow food on a farm and get it to the grocery store requires* **cooperation**. *Working together as a team, we will get an entire day's work done in just one hour. This is called cooperation*. By your selection or by volunteer, one student will place mini shredded wheat "bales" to simulate feeding hay to the cows. *How do cows sound when they are hungry? They moo.* Encourage the children to "moo" while the cows are being fed. Naturally, a few of your students may want to try the mini shredded wheat hay bales themselves. NOTE: As each child completes a task, have him or her mark off the box on the checklist.
- 2. Now you move onto the next step on the checklist. *How do we get milk from cows? We milk them, of course.* Dairy farmers bring their cows into a milking parlor (the empty shoe box), so your next "farmer" will move the cows to the milking parlor. Depending on the number of students, you may want one or two to "herd" the cattle to the dairy parlor. Explain that farmers use hoses to collect milk from cows. A pump moves the milk to a storage tank. To simulate this, place one end of a small hose near the cow to represent the milking machine and the other end near the small jar of milk. Invite all the students to take their turn milking cows.
- 3. Now assign one or more students to herd the cattle back to the pasture.
- 4. To show that cattle take a different type of care than crops, ask one of the youth to be a **veterinarian** and give the cows a check-up to make sure they are healthy. *A veterinarian, usually just called a vet, is a doctor for animals. Farmers pay vets to come out to their farms to make sure all their animals are healthy.*
- 5. Trucks take the milk from farms to dairies, where the milk is pasteurized and packaged. Have the next student drive the jar of milk to the large empty milk carton or jug that represents a dairy. We will pretend this is a dairy, where milk is pasteurized and packaged. Pasteurizing is a way of treating milk so it is good for people to drink. Many dairies are cooperatives. A cooperative is

a business owned by farmers working together to do things they could not do on their own. Hold up a stick of butter and say this is one of the food items made from milk. Ask the children to tell you, What kinds of food are made from milk? Answers could be cheese, ice cream, and yogurt.

- 6. Place the butter into the truck and let the next student drive it to the small, paper grocery bag. Explain to the children that *a* **consumer** *is the same as a* **customer**: *it is someone who buys food for their own use at home.* A customer at a grocery store buys butter and then takes it home to spread on sandwiches or toast.
- 7. Allow one student to become a customer and the "bag the butter" and move it to the toaster.
- 8. *It's time for toast!* Proceed to activities 8-12 above and continue to the end of that session. Students who participated in the dairy activity will pour milk or spread butter for the toast cooperative.

Gardening, Farming Match-Up





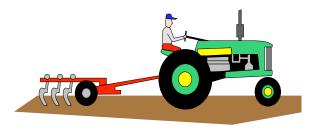


Hoeing a garden before planting





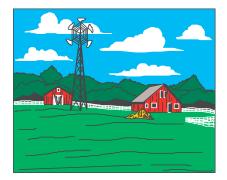
A home garden



Plowing a field before planting



Harvesting with a combine



A farm field



A truck load

From Farm to Food

Place a "W" next to food items mostly made from wheat flour. Place an "M" next to food items mostly made from milk.



Farm Chores Checklist

Plant wheat seed in the field.
Wait for sun and rain.
Weed the field.
Harvest the wheat.
Mill the wheat into flour.
Bake bread at the bakery.
Sell the bread in a grocery store.
Make toast.

Dairy Farm Chores Checklist

Feed the cattle.



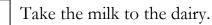
Bring the cattle to the dairy parlor.



Return the cattle to the pasture.



Have a veterinarian make sure the cattle are healthy.

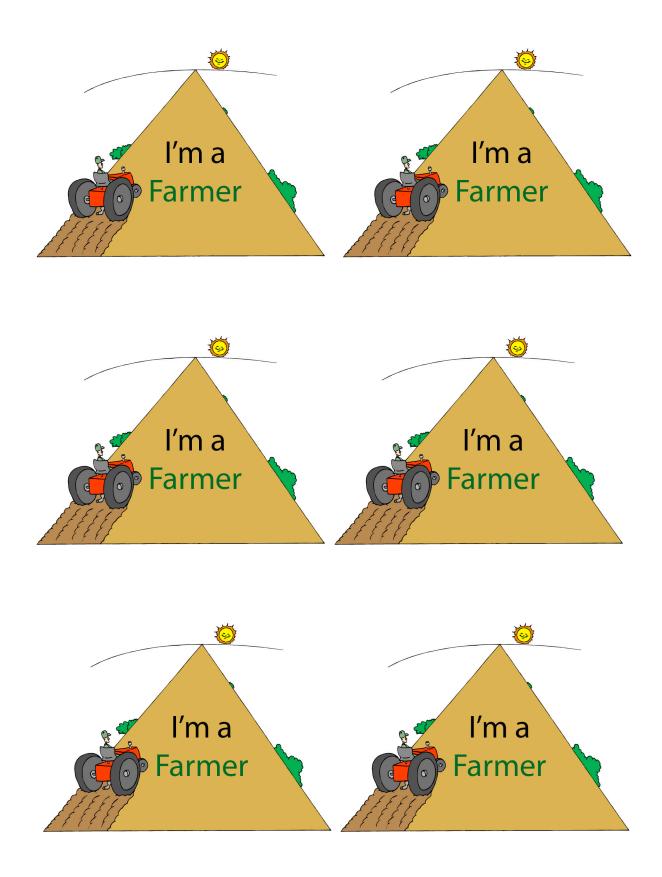


Take the butter to the grocery store.



Take the butter home.

Make toast.



Lesson 3: Colors Count

Unit Objective:	Students will learn about the food pyramid and balance in their diets.
Grades:	1-2
Length:	1 hour: 10 minutes for explaining food and food groups; 20 minutes for the
	"My Pyramid" activity, 15 minutes for the paper plate activity; 15 minutes for
	the Cooperative Calories game.
Materials Needed:	Colored pencils or crayons, regular pencils, glue sticks, scissors, paper plates,
	paper punch, yarn or string, coloring handouts of the "My Pyramid,"
	handouts of the hamburger ingredients, a bag of candy (Tootsie Rolls or
	similar), a whiteboard, chalkboard or flipchart, three cereal bowls, and a box
	of cereal (Multi-Grain Cheerios work well).
Preparation Needed	: For this activity you will need room for children to play a game. The first
	part of the activity will be done indoors at tables while the game may be done
	outdoors, weather permitting. Print enough copies of "My Pyramid" for each
	child. Print enough copies of the hamburger sheet, and cut out each
	individual food ingredient, so each child has one piece of food. Cut the yarn
	into two-foot strips.

Background:

The United States Department of Agriculture provides a nutritional diagram in the shape of a **pyramid** to guide people in choosing **moderation** and **balance** in their diets. Recently revised, the pyramid helps people understand the different **food groups** and which ones we need more or less of to live healthy lives.

Teaching Strategy:

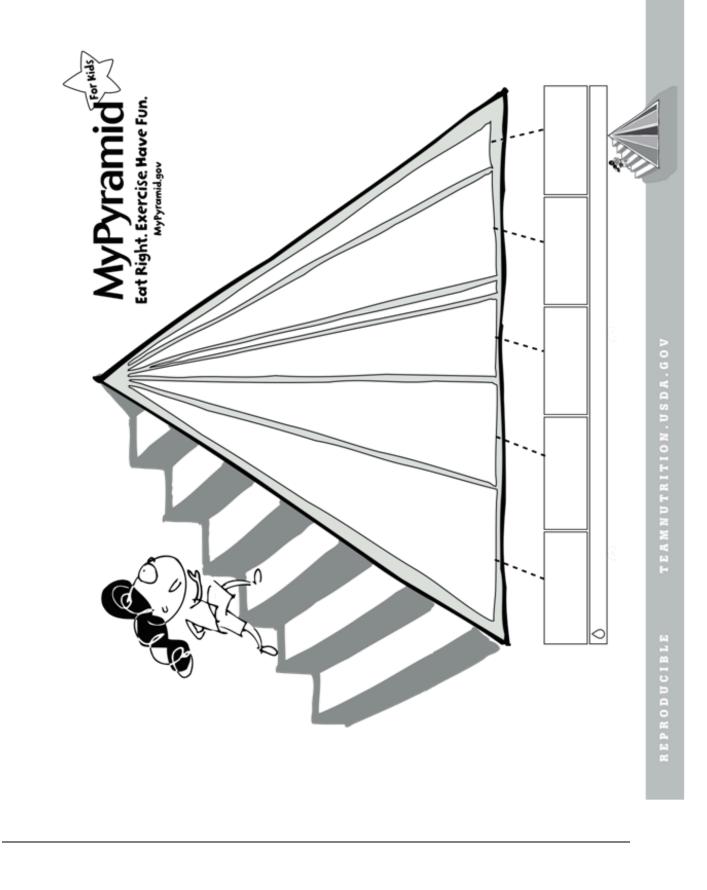
- 1. What is food and what are food groups? Food is made up of nutrients, which give us energy and help our bodies grow. Foods can be natural or processed and also include drinks such as milk and juice (but not water). Natural foods are foods we eat directly from the garden or field, such as potatoes, sweet corn, tomatoes, and apples. Processed foods have to be prepared from various ingredients and packaged for consumers, such as bread, cereal, cheese, soup, and cookies. We may not think of milk or juice as foods because they are not solid, yet they do contain nutrients and calories.
- 2. Food is fuel for our bodies. Just as a car uses gasoline, a home uses heating oil, and a campfire uses wood, we need food to provide our bodies with energy in order to stay healthy. Food allows us to keep our bodies warm during cold temperatures, and makes it possible for us to walk, run, and play tag. Ask the children, What do we get from foods? Then answer, Proteins from meat, fish, and beans; carbohydrates from sugar, bread, cereals, and veggies; fats from cheese, butter, and fried foods; vitamins such as A, B, C, and D that come from apples, oranges, and carrots; and minerals such as calcium, salt, iron, and fiber that come from fruits, veggies, and cereals.
- 3. Labels on foods show us information about what we are eating. One way we measure food is in calories, which is a way to measure the energy content of food. Like coins or inches, calories add up. Too many calories or the wrong kinds of calories will lead to health problems. Too few calories mean we are hungry. Give the students time to consider this.
- 4. What happens if we only eat ice cream? What happens if we only eat bread? Pause for answers. We will get sick because we are not getting a balanced diet. As the youth leader, demonstrate this by putting your arms level with your hands extended. Tell the students if you eat only one kind of food it pulls you down in one direction, or out of balance. Ask a student to place a bag of candy in your hand. Like a scale, tip sideways to show that too much of one food keeps you off balance. Have another student place an apple in your other hand. Return your arms so they are both level. Our bodies need to have the right fuel to keep us growing, keep us healthy, and keep us strong. There is no food that gives us everything we need. We cannot eat just candy or just apples and be well.

- 5. Hand out a "My Pyramid" coloring sheet to each child. The **food pyramid** in front of you is a good guide on how to find balance in your diet. Does anyone know what the **food groups** are? Listen to the answers. The five food groups are Grains, Vegetables, Fruits, Milk, and Meats and Beans.
 - a. Have the children color in the first stripe on the pyramid and the box below using a light orange crayon or pencil. Then have them write "Grains" in the box below using a regular pencil. Ask them what types of foods are made from grains. Make sure they know grains include wheat, barley, oats, and corn. Write down their answers on the whiteboard, chalkboard or flipchart so everyone can see them. Make sure each child has a chance to respond. Depending on their answers, make sure you have these items: breads, buns, cereals, pastas, tortillas, and cookies. Have them write "Bun" in the orange band they just colored in the pyramid.
 - b. Next, ask the students to use their pencils to write "Vegetables" or "Veggies" in the box next to "Grains." They should color in this box and stripe using light green. Again, ask them to tell you what vegetables they know by name and write down their answers. Depending on the responses given by the children, you should have carrots, potatoes, lettuce, corn, and onions. Have them write "Onion" in the green stripe in the pyramid.
 - c. The third box and stripe will be light red, so ask them to color each in accordingly. Have them write "Fruits" in this box and ask them for examples. Write down their answers. Make sure you have these items on the list: oranges, apples, grapes, bananas, and tomatoes. Tomatoes are a fruit, although they are thought of as a vegetable. Ask them to write down "Tomato" in the red stripe in the pyramid.
 - d. The next narrow stripe and the long, thin horizontal box below all the other boxes is for oils. Ask the students to color this stripe and box in using yellow and then write "Oils" in it. Oils may be difficult for children to recognize. *Oils are not a food group, yet a small amount of oils are important to provide a healthy diet. Oils come from foods such as fish and nuts. It also can be added to cooking oils and margarine.* Ask them to write "Margarine" on the yellow stripe. *Margarine is like butter, but it is made from vegetable oil rather than milk.*
 - e. *We have two stripes and boxes to go.* Light blue is the color for the next stripe and box. After the students color in these areas, have them write "Milk" in the box. Ask the students to tell you what items are made from milk. The answers should include milk, cheese, ice cream, and yogurt. Have them write "Cheese" in the blue stripe on the pyramid.
 - f. Finally, ask them to color in the last stripe and box below using a light purple crayon or pencil. Ask them to write "Meats and Beans" in the box. As before, ask them to give you examples of meats and beans and record their answers on a flipchart. In the end, the following examples should be included: hamburger, bacon, ham, chicken, turkey, and beans. Ask them to write "Hamburger" in the purple stripe.
- 6. Wow, that was a lot of work. What are we learning? There are five food groups. Children and adults daily need to eat a balance of food from each of the five groups. What do the stripes do as they come together at the top of the pyramid? They narrow. The stripes are wider at the bottom. This is because more of the food we eat in each group should be natural. Processed foods will be found in the narrow areas of the stripes at the top. We should eat less processed foods and more natural foods. Processed foods have had salt, sugar, preservatives, artificial flavors and colors, and other ingredients added to them and often in amounts that exceed what we need every day. Here is an example: An apple may have 100 calories, while a slice of apple pie can have more than 500 calories and that is without any ice cream or whipped cream topping. Did you know if you have three pieces of apple pie, you already have eaten all the calories you actually need for one day? If we eat too many calories what happens? We gain weight. The answer is that we need to enjoy all foods in moderation. Having balance in your diet means eating a variety of foods from the different groups, and also eating all foods in moderation, which means not too little and not too much.
- 7. Set out three bowls. Pour enough cereal to cover the bottom of the first bowl, add cereal to the halfway line of the second bowl, and fill the third one to overflowing. Ask them which

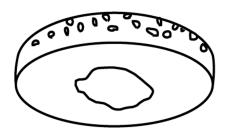
bowl best shows moderation. The one in the middle, of course. It is easy to eat too much food when we really like it. And, it is easy to eat too much food if we begin with a full plate or bowl. *It is better to start with small portions and ask for a second serving than to take too much food the first time*. If you want, put the Cheerio's in small paper cups, add a Tootsie Roll on top and pass them out to the children. Ask them which part of the snack is "healthier," Cheerio's or the Tootsie Roll. They should say the Cheerio's. Advise them that they need more snacks like Cheerio's and fewer snacks like Tootsie Rolls to keep their foods in balance.

- 8. Pass out two paper plates to each student, and circulate glue sticks, colors and pencils. Give each student only one of these items to paste on the inside of ONE of their plates: bun, hamburger, cheese, onion, tomato, or margarine. Ask them to color the images. The person who gets the bun will have both the top and bottom and also will have to color in the margarine area. Now, explain to the children they are building a hamburger. (On average, active children in this age group need 1,500 calories a day. Children this age may not comprehend calories or numbers in this range. To make it easier to understand, we will convert calories into measurements of volume or weight.) Have the student who colored the bun and margarine write, "Grain: 4 ounces" and "Oils: Small Amounts" on the inside of his or her SECOND paper plate. The student who had the hamburger will write "Meat: 4 ounces" on the inside of his or her second paper plate. For cheese, write "Milk: 2 cups;" for onion, write "Vegetables: 1.5 cups;" for tomato write "Fruit: 1.5 cups."
- 9. Walk around with your paper punch and punch two holes in all of the paper plates. The holes should be at the "10" and "2" o'clock positions at the top. Put each child's paper plates back to back, and thread parallel strips of yarn through each hole and tie a small knot. When you are done the paper plates will be placed on each child with the food item displayed in front and the measurements facing out in back. The yarn will suspend the plates from each child's shoulders so one plate is hanging over his or her chest and the other facing out from his or her back.
- 10. Have the children look at their food pyramids one more time. What do they see going up the one side? Steps. *Balance not only means eating the right amounts of foods from the different groups, it also means exercise*. Now it is time to move to an area large enough to play an activity, or to move outside if weather allows. *We are going to play a game called Cooperative Calories. We will all stand in a circle facing inward. I will tap someone to be first. If you feel a tap, step back from the circle and run around it at least once.* This child will then choose someone from another food group to join him or her, after which they will run around the circle hand-in-hand at least once. Together, they will choose a third food group to join them. This continues until the circle has become a chain of running students. Ask them to stop, and reform the circle. If you have enough students, you may set up two or more circles. If you have too few students, you may have to fill in as a participant in both the coloring and game activities.
- 11. What is a cooperative? It is people working together to do things they cannot do by themselves. Cooperation is a way to work together so everyone wins. The food groups you learned about today are kind of like a cooperative. All of these food groups work together to make you healthy and to help you grow. Food groups provide the cooperative calories you need to be healthy and active. Daily exercise helps use those calories to help you grow and keep you healthy. If time allows, you can play this game again and again. Each time choose a different student (food group) to begin the game.
- 12. Close the activity by calling everyone together and singing "The Farmer Grows A Rainbow" song to the tune of "Following the Leader" from Peter Pan. The lyrics are shown below.

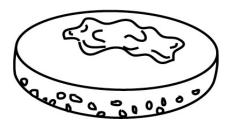
Sources: United States Department of Agriculture; U.S. Department of Health and Human Services; Agriculture in the Classroom



Hamburger Items for Paper Plates



Bun with margarine

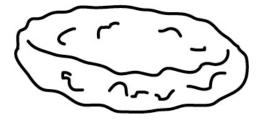


Bun with margarine





Cheese slice



Hamburger

Tomato slice



Onion slice

The Farmer Grows a Rainbow

(Sung to the tune of 'Following the Leader" From Peter Pan)

The farmer grows a rainbow, a rainbow, a rainbow, The farmer grows a rainbow For me to eat each day!

A bright and healthy rainbow, a rainbow, a rainbow, A bright and healthy rainbow To fuel my work and play!

The farmer grows the grassy grains, the grassy grains, the grassy grains, The farmer grows the grassy grains To give me energy!

The farmer grows the vegetables, the vegetables, the vegetables, The farmer grows the vegetables With vitamins, you see!

The farmer grows the fresh fruits, the fresh fruits, the fresh fruits, The farmer grows the fresh fruits To keep away disease!

The farmer cares for dairy cows, for dairy cows, for dairy cows, The farmer cares for dairy cows To give me milk and cheese!

The farmer raises beef cows, and swine for pork, and poultry, The farmer raises catfish For protein so I'll grow.

I want to thank the farmer, the farmer, the farmer, I want to thank the farmer For growing my rainbow!

> A recording of "The Farmer Grows a Rainbow" may be found at the Ag Classroom website: <u>www.agclassroom.org</u>.

Lesson 4: Pick Me

Unit Objective:	Children will be introduced to food choices, portion sizes, and preparing
	their own grocery shopping list.
Grades:	1-2
Length:	1 hour: 20 minutes for the opening discussion and examples, 10 minutes for
C	the "Nutritious Choices" worksheet and discussion, 20 minutes to prepare
	the shopping list and shopping bag, 10 minutes for concluding discussion
	and comments.
Materials Needed:	Secure medium brown paper grocery bags (the local grocery store may
	donate these), whiteboard or flipchart and markers, crayons, glue sticks,
	"Nutritious Choices" and "My Shopping List" worksheets, and food item
	examples from the five food groups: bread, carrots, apple, milk, and peanut
	butter.
Preparation Needed	1: Print double-sided copies of the "Nutritious Choices" coloring sheets and
	single-sided "My Shopping List" worksheets and the "Just For Parents"
	handout for each child.

Background:

Children this age are beginning to develop cognitive reasoning abilities. Children need balance in their diets. They do this by daily eating items from all five food groups. This is not meant to be an all-inclusive lesson on menu planning. It is meant to encourage children to think of the five food groups, the choices they have, and encourage them to try new foods. This lesson also will reinforce portion size concepts and awareness of natural and processed foods.

Even at this early age, children in first and second grades are aware of types of foods, nutritional values, and what foods they like and do not like. By helping your students design a shopping list and affixing it to a grocery bag, they will develop and put into action their own responsibilities for the food choices they make.

Teaching Strategy:

- Begin by asking the children if they go along with their parents on trips to the grocery store. Then ask them if they help decide what foods to buy. On a whiteboard, chalkboard or flip chart, write down their responses under the heading "Kids." Ask the students what kinds of food items their parents choose and write those answers down under the heading "Parents." You may see that children tend to choose "fun" foods from donuts and sugary cereals to potato chips and soda pop. Their parents hopefully choose foods that offer a more balanced diet. Parents also will choose certain food items because they are convenient: both easy and quick to make. Parents may also choose foods based on price, available selection, and personal tastes.
- 2. Now ask the children, *What would happen if you ate only donuts all day long? What would happen if you only ate potato chips?* Listen to their responses, should they have any. *Did you know you would become sick and you would not grow up like you are supposed to if you ate just one type of food?* This is why we have five food groups: Grains, Vegetables, Fruit, Milk, and Meats and Beans. Each one gives us different carbohydrates, proteins, vitamins, nutrients, minerals, and oils. Hold up examples of food items for each food group: bread, carrots, apple, milk, and peanut butter. Let them guess which food item goes in the five food groups. Tell them that meat includes hamburgers, turkey, ham, and can include nuts and beans. Peanut butter is a protein, so it can be a substitute for meat. So can different kinds of beans.
- 3. Now ask the children how many times each week their families eat out at a restaurant or fast food place, how many times they bake something ready-to-cook such as pizza or frozen dinners at home, and how many times they make homemade meals from "scratch" using ingredients they have at home. You do not need to write any of these responses down: this is

an opportunity for the children to consider what kinds of foods they are eating and how often. Depending on the responses, encourage more discussion on this topic. *Why do we eat out more? Is it because our lives are busy and buying food ready to eat saves time? Why do we cook more on weekends? Is it because we have time, and for many people cooking is fun?*

- 4. Some foods, such as pizza, sandwiches and casseroles can include ingredients from all of the five food groups of Grains, Vegetables, Fruits, Milk, and Meats and Beans. At other meals, the food groups are found in a variety of dishes. A good example to share with the students is Thanksgiving, when the menu might include turkey, potatoes, milk, cranberries, and bread all served separately. Either way, these meals have balance because they have servings from each of the five food groups.
- 5. Children this age will know grocery store shelves are filled with thousands of types of foods. Many items are ready-to-make such as frozen lasagna or a can of soup. These foods are processed, meaning they have had all the ingredients added at a factory and typically have additional salt, sugar, and preservatives added as well. They are packaged in cans, cartons, and boxes. Foods in their natural or near-natural state are generally healthier to eat. Fresh fruits and vegetables, such as potatoes to strawberries, are healthier for us compared to potato chips or strawberry donuts. Ask the children to give you examples of "natural foods" and "processed foods." As these students may not be sure of the differences, you may prompt them with the following examples. Write them down side-by-side on the whiteboard or flipchart under "Natural Foods" and "Processed Foods" headings. Then write: Potatoes and Potato Chips; Apple and Apple Pie; Milk and Milk Shake; Chicken Breast and Chicken Nuggets; Whole Wheat Bread and Jelly Donut. Explain to them the food items on the left are closer to natural, while the food items on the right are processed.
- 6. Hand out the "Nutritious Choices" coloring sheets showing the strong man holding the barbell above his head. Ask the children to color in the side that they believe is healthiest to eat. By healthy we mean closer to natural than processed and with fewer calories. The coloring sheets already provide clues by listing the calories for a serving of each food. Realize that children this age may not readily differentiate between the caloric content of a small glass of 2% milk compared to a Blizzard at the Dairy Queen. The purpose of this exercise is to show how children can literally get too much of a good thing by always choosing processed foods. You, too, will want to color in the correct answers during this activity. Review the answers by holding up your own coloring sheet and pointing to which foods choices are both more natural and have fewer calories. A glazed, jelly-filled donut can have 480 calories, while a whole wheat toast with peanut butter has just 160 calories. Which would be a better choice? To show how calories add up, tell the children the total calories for the "good" choices comes to 625 calories. The total for the "poor" choices comes to 2,231. The dietary guidelines recommend 1,200 calories daily for girls and 1,400 calories daily for boys ages 4-8. This is why you need balance in your diet. You do not want to eat too many calories and you need a mix of healthy foods. If you're parents want you to try whole wheat toast and sliced apples, it is because they know what are healthy choices for you. If you eat more calories than your body uses every_day you may begin to add more weight than is healthy.
- 7. What can we do to make good and fun choices when it comes to the food we eat? We will make our own shopping list. Hand out the "My Shopping List" page to the students. The next time your parents go to a grocery store, ask to go with them and tell them you want to pick your own healthy foods from the five food groups. Explain you are not creating menus for entire meals, as many parents may not want their children making these types of decisions. Encourage students to think of the five food groups. Let's begin with Grains. At least half of the daily grains you eat should be whole grains. For Whole Wheat Grains, let them choose from one of the four selections and have them put an X in front of the ONE item on the list they want to try. Three of these are cereals, and one is a type of bread. All of them are foods processed to keep more of the natural ingredients unchanged.
- 8. Move on to Vegetables. For most children, potato chips will win out over potatoes or sliced raw carrots, unless they grew up in a family that embraces eating raw vegetables. The

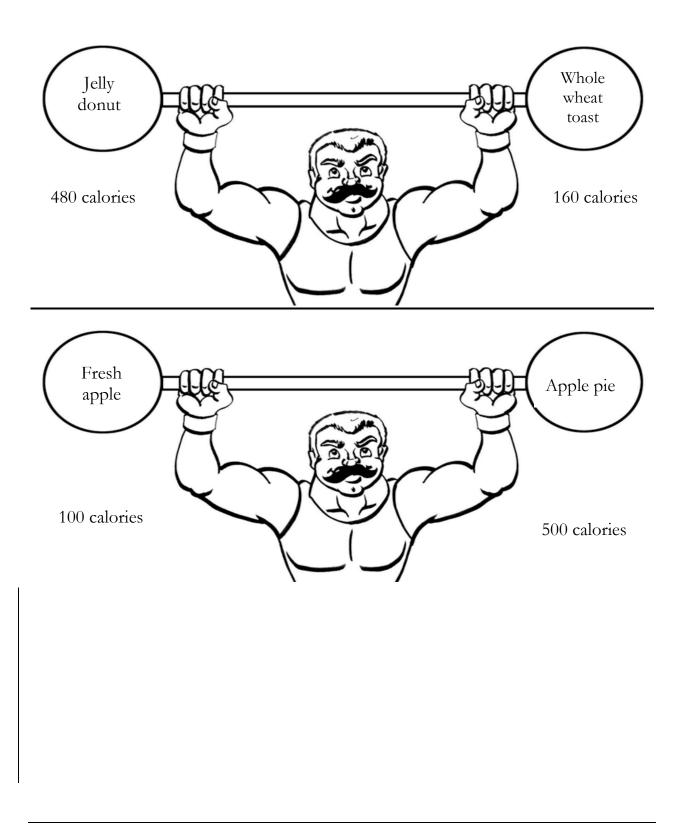
vegetables that have the most nutritional value have dark green colors, such as spinach. Unfortunately, these types of vegetables have flavors or textures that some young children may not appreciate. For Vegetables, you can choose from baby carrots, cucumbers, potatoes, or lettuce. You can eat all of these just as they are. You can slice cucumbers and potatoes and eat them as they are, or add them to other foods. You can put lettuce on a sandwich, you can bake potatoes and add a topping to them when they are done, and you can dip carrots into dressing. Give the children time to mark a selection. If they need help reading the selections, or ask questions about what a specific selection is, take time to answer them.

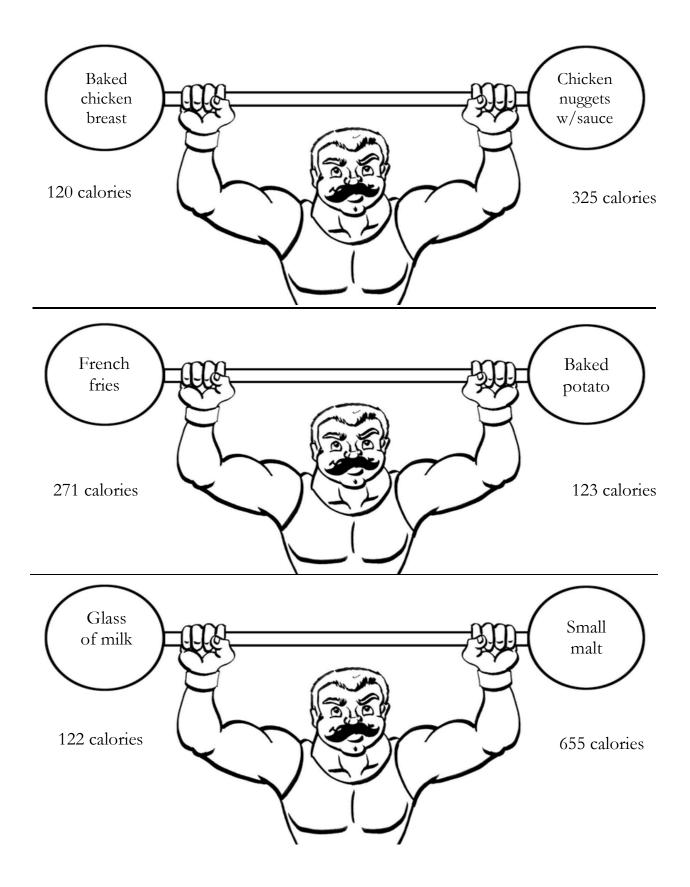
- 9. Now move to Fruits. Many of us do not get enough vegetables and fruits every day. Fresh fruits can taste as good as dessert. And, like vegetables, fruits can be combined with other foods. Choose one of these fruits to try: apple, cantaloupe, banana, or orange.
- 10. Milk is next on the list. Milk is used to make all kinds of cheeses, creams, milks, and yogurts. I want you to try one of these choices: cottage cheese, yogurt, 2% milk, or mild cheddar cheese. Allow the children time to choose one item.
- 11. Now move onto the final category of Meats and Beans. Did you know the protein in meat and beans help our bodies heal when we get injured? Choose one of these proteins to try: lean hamburger, tuna fish, egg, or peanut butter. Peanuts and beans are full of proteins, just like meats. Tuna fish can be mixed with other ingredients to make a sandwich. Consider trying something new.
- 12. The next step is to glue the shopping list on one side of the paper grocery sacks. If you earlier also taught Lesson 3, "Colors Count," you may want to have the students glue their food pyramids to the other side of the sack. The next time your parents go to the grocery store, ask them to let you go with your shopping list and choose these food items. Your parents may have additional ideas on how to prepare these foods. Promise them you want to try new foods that are healthy for you.
- 13. Ask the students what new foods they would like to try, and why. Let them share their thoughts with you.
- 14. If possible, tell parents about the activity you and the children completed. If not, you may choose to send home the "Just for Parents" memo. Tell your students and their parents that the class they are in was put together by Farmers Union. Let them know Farmers Union is an organization of farmers who grow a safe and secure supply of food. Farmers Union also supports healthy diets for all Americans. In fact, Farmers Union helped get hot lunch and milk programs going in schools. Farmers Union worked hard to get country-of-origin labeling enacted so consumers know where their foods actually come from.

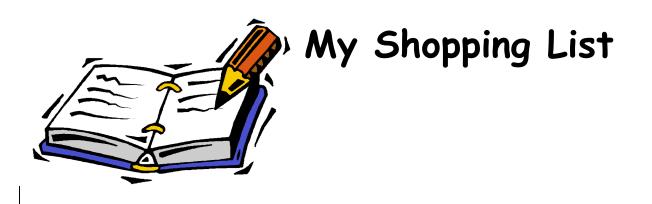
Sources: USDA, eHow, Mayo Clinic

Nutritious Choices

Farmers provide you with nutritious foods. Some foods help you grow and make you strong. You should eat more natural foods and less processed foods every day. *Directions: Color the body builder's barbell that contains the healthier choice.*







Grains

Come from plants including wheat, corn, and oats. Used to make breads, tortillas, cereals, and pastas. Good sources of nutrients, carbohydrates, and fiber. Products whose labels say "whole grains" (different than whole *wheat*) offer additional benefits.

	I.

Whole Grain Cheerios Cornmeal muffins

Baby carrots

Potatoes

Shredded Wheat Oatmeal hot cereal

Vegetables

Good sources of vitamins, minerals, antioxidants, and fiber. Fresh vegetables are best. Processed vegetables that are canned contain higher amounts of sugars, salts, and other additives. Veggies may be combined in salads or added to sandwiches. Dipping carrots into salad dressing and celery into peanut butter or cheese may make veggies more "fun."

Г	Cucumbers
Γ	Lettuce

Fruits

Good sources of vitamins, minerals, antioxidants, and fiber. Fresh fruits are best. Processed fruits that are canned contain higher amounts of sugars, salts, and other additives. Fruits may be added to cereals, salads, and desserts. Some children may not like skins or seeds, so peeling and slicing some fruits may make them more acceptable.

Apple Banana

	Cantaloupe
ī	Orange

Milk

Good source of calcium, vitamins, and fat. Products may include milk, cheese, cream, cottage cheese, ice cream, and yogurt. Flavors in milk and ice cream make them popular with children. Fruits may be added to cottage cheese, and fruits, dry cereal or granola may be added to yogurt.

Co
2%

Cottage cheese	
2% milk	

Yogurt Mild cheddar cheese

Meats & Beans

Includes beef, chicken, fish, pork, nuts, lentils, and beans. A good source of proteins, which help our bodies heal. Meats should be lean and can be served as the main course or combined with other items such as in sandwiches, hamburgers, casseroles, and pizza. To limit calories, pay attention to portion sizes and also watch for overuse of sauces.



Lean hamburger Tuna Fish] Egg] Peanut butter

Just for Parents

Today your child learned about the five food groups and the importance of making healthy choices in what and how much they eat.

Your son or daughter has prepared his or her own grocery shopping list. Additionally, he or she has agreed to try new foods. This may be a good opportunity to enthusiastically encourage them to try new foods.

Studies have shown that children are more likely to consider new foods if they are part of the selection process. The next time it is convenient, take your child to the grocery store. Remind them to bring their grocery shopping bag and list. Review the choices they have made for each food group. If you believe there may be a better option, please suggest it to your child. When you return home and are ready to use their choices in a meal or snack, be sure to let them watch the preparation. It will build their enthusiasm for learning more about food and listening to you offer your guidelines for healthy eating.

The class your child has participated in was put together by Farmers Union. Farmers Union is an organization of farmers who grow a safe and secure supply of food. Farmers Union supports healthy diets for all Americans. For example, Farmers Union was a leader in getting school lunch and milk programs enacted as well as country-oforigin food labeling so consumers know where their foods are coming from.

Thank you for supporting your child's nutritional education. For more information, please contact your local or state Farmers Union organization.

Optional Activities

The following activities could be incorporated at the end of any lesson to fill extra time.

Painted Bread: Set out small bowls of milk and add drops of different food coloring to each bowl. Give each of the children a new paint brush (or use Q-tips) and a slice of white bread. Then let them use the colored milk to paint faces, flowers, or their own designs on both sides of their bread slices. Toast the bread, spread with butter and eat.

Colored Balloons: Students have learned choosing a rainbow of colors assures them they are getting a variety of foods that provide all the nutrients their bodies need. To help students associate the various colors of My_Pyramid with the food groups they represent, play "Rainbows Aloft" with the class. The game can be played using balloons that are batted by students to stay aloft or colored sheer scarves, which students can blow on to provide movement. Have the children stand in a random arrangement. Play a recording of the song, "The Farmer Grows a Rainbow." A recording is available on the Ag Classroom website: <u>www.agclassroom.org</u>. Students may move to the music and sing along. As the subsequent verses are sung, you should toss in balloons or scarves that match the color represented by the food group mentioned. Students sing along and do their part to keep the colors off the floor or ground.

Hand Sandwich: Using face paint "write" just one of each of the following five food items on the right or left hand of the students: Bread, Cheese, Lettuce, Tomato, or Turkey. Ask them to identify by holding up their hand if they represent Grains, Veggies, Fruits, Milk, or Meat. Gather them at the end of a table or in a circle and tell them they are going to make hand sandwiches. NOTE: You will need two students to be bread in order to make a sandwich, one hand to start and another hand to conclude. Start with bread, then call out the other ingredients and let the students stack their hands. If you do not have enough students, you as the instructor can use one of your own hands to be the bottom slice of bread, and the other hand will be used as the top slice.

Give Thanks: Write a thank you card to businesses and co-ops that helped sponsor any activities, as well as to the county Farmers Union president, and have the children sign the cards and make sure they are mailed to the proper individuals. Alternatively, you may create a thank you card using a half-folded sheet of tag board and present the card to the appropriate recipients. Be sure to list your Farmers Union organization's name, as these cards commonly are displayed.