



Farm to You

Station Scripts



Station Messages

Overall Project Aim

The aim of the project is to increase the awareness in elementary school age children of the link between agriculture, nutrition & health. The messages utilize research-based information, address major health concerns of the target audience in Oklahoma and incorporate the missions of the collaborating partners including Oklahoma Cooperative Extension (OCES) Service 4-H, Family and Consumer Sciences and Agriculture Education programs, OSU Department of Nutritional Sciences, Oklahoma State Department of Health (OSDH) WIC Service, and Southwest Dairy.

Major health concerns of youth in Oklahoma include the following (Oklahoma State Department of Health, State of the State's Health Reports, 2006 & 2007).

- High prevalence of dental decay.
- Increasing rates of overweight and obesity.
- Limited physical activity.
- Low consumption of fruits and vegetables.
- High rate of smoking among adolescents & teens.

Project Description

The walk-through exhibit is a series of nine stations. Small groups of approximately eight to ten students begin the educational, interactive experience at the cheeseburger farm. They follow the food grown on the farm to market and through the body to learn how it is digested, absorbed and utilized in bones and muscles. At each station community or school volunteers use a written script to engage students in approximately a six minute dialogue and activity. Messages have been written to be age appropriate for grades 1-3 and 4-6. Corresponding Oklahoma State Department of Education Priority Academic Students Skills (PASS) have been identified for each station message.

Classrooms will be divided into small groups of 8 to 10 students to progress through the exhibit, causing some students to be delayed in beginning while others will need to wait at the end for their classmates to complete the exhibit. Physical activity dice and nutrition toss balls will be available for the small group to use during the wait time. Some students may be asked to complete pre/post evaluation surveys.

While students are progressing through the exhibit, the exhibit coordinator will be responsible for keeping time and blowing a whistle or other auditory device at six minute increments. At each auditory signal students will progress to the next station.

The exhibit is designed to *enhance* current OCES & OSDH nutrition, health and agricultural programming. For maximum impact on health related knowledge and behaviors, schools and community organizations should utilize multi-faceted approach including 1) a series of nutrition education lessons offered by OCES Healthy Oklahoma Impact Team, Community Nutrition Education Program and/or 4-H; 2) Ag in the Classroom lessons to integrate agriculture and nutrition

concepts into core curriculum, 3) Farm to You exhibit and 4) the activity newsletter to extend messages into the home environment.

Evaluation

Students in 3rd and 5th grades will complete a written pre/post survey to assess change in knowledge and intent to consume more milk/dairy foods, fruits, and vegetables and increase physical activity.

A post exhibit survey will be completed by the school or community organization contact person to assess intent for future use and enhancement to the classroom nutrition and health program.

Output, Outcomes & Impact

- Approximately 30,000 Oklahoma elementary school-age children will participate in the Farm-to-You, interactive, educational exhibit each year.
- Students will demonstrate increased awareness of the link between agriculture, nutrition and health.
- Students will have increased intent for increasing fat-free, low-fat or reduced-fat milk, fruit and vegetable consumption and physical activity.
- Elementary schools and community programs targeting elementary school age children will increase utilization of OCES nutrition and health programming including OCES Healthy Oklahoma Impact Team, Community Nutrition Education Program, and Ag in the Classroom as measured by an increased number of programs scheduled.

Staffing Requirements

8 - 10 community or school volunteers will be needed to help set - up and take - down the exhibit. Also, 10 volunteers are needed to deliver the station messages. Each classroom will need a teacher or another adult for each group of 8 to 10 students to accompany them through the exhibit stations.

Station 1 - Cheeseburger Farm

Key Concept:

1. Farms provide foods that are important to good health.

Key Outcomes:

Students in grades 1-3 will be able to

1. State that food comes from farms.
2. Explain that farmers grow plants and raise animals for food.

Student Activities:

Students match farm animals and plants to the component of the cheeseburger it provides.

Students match each component of the cheeseburger to the appropriate MyPyramid food group.

Suggested Costume for Presenter:

Overalls

Script for grades 1-3:

Station 1 - Cheeseburger Farm	
Graphics	Script
<p>Cheeseburger Farm "If you eat you are a part of agriculture."</p>	<p>Welcome to Cheeseburger Farm. Who likes cheeseburgers?</p> <p>Did you know that farmers spend a lot of time growing plants and raising animals for the different foods in a cheeseburger? This type of work is called agriculture. Say agriculture with me. Agriculture.</p> <p>Without farmers and agriculture we would not have healthy foods to eat.</p>
<p>MyPyramid</p>	<p>Who knows what this is? <i>Refer to MyPyramid graphic. Pause for responses.</i></p> <p>It's MyPyramid. It was developed by nutrition experts to help us know how about how much of each kind of farm food to eat so that our bodies are strong and healthy.</p> <p>Let's take a closer look at how farmers and MyPyramid work together to help us be strong and healthy.</p>

<p>Orange stripe of MyPyramid Picture of wheat field</p>	<p>The orange stripe is the grains group. Grains, like wheat, grow in fields. Many Oklahoma farmers grow the wheat used to make bread. <i>Point to the exhibit's wheat plant.</i></p> <p>What part of a cheeseburger is made from wheat? <i>Bun. Point to the bun on the exhibit's cheeseburger graphic.</i></p>
<p>Green stripe of MyPyramid Vegetable garden Tomato green house</p>	<p>The green stripe is the vegetable group. Vegetables grow in the farmers' fields and green houses. <i>Point out the exhibit's tomato and lettuce plants.</i></p> <p>What parts of the cheeseburger are vegetables? <i>Tomato and lettuce. Point out the tomato and lettuce on the exhibit's cheeseburger.</i></p> <p>Where do they grow? <i>On farms.</i></p>
<p>Red stripe of MyPyramid Fruit orchard Fruit vines</p>	<p>The red stripe is the fruit group. Fruits like apples and peaches grow on trees in farm orchards. Other fruits like melons and strawberries grow in fields. <i>Point out the orchard and melon fields on the flip chart.</i></p> <p>What is one of your favorite fruits? <i>Pause for one response.</i></p> <p>Where do (name of favorite fruit mentioned) grow? <i>On farms.</i></p>
<p>Blue stripe of MyPyramid Dairy barn Dairy cattle</p>	<p>The blue stripe is the milk group. What animal gives us milk? <i>Cows. Point to the exhibit's dairy cow cut out.</i></p> <p>Where do the cows live? <i>On farms called dairies.</i></p> <p>What part of the cheeseburger is in the milk group? <i>Cheese. Point to the cheese on the exhibit cheeseburger.</i></p>

<p>Purple stripe of MyPyramid Beef cattle</p>	<p>The purple stripe is the meat group. What kind of animal does meat come from? <i>Answers may include cows, pigs, chicken, fish, and goats. Point out the exhibit's beef cattle cut out.</i></p> <p>Eggs are another food in the meat group. Which animal do they come from? <i>Chicken</i></p> <p>Where do the animals live? <i>On farms.</i></p> <p>What part of the cheeseburger is in the meat group? <i>Hamburger patty or meat patty. Point out the beef patty on the exhibit's cheeseburger.</i></p>
<p>Cheeseburger</p>	<p>Help me count the number of food groups in the cheeseburger. <i>Point to each part of the cheeseburger on floor (bun, lettuce & tomato, cheese and meat) and count to four)</i></p> <p>Who remembers why my farm is named Cheeseburger Farm? <i>Because all the foods in a cheeseburger come from a farm.</i></p>
<p>Graphic of farmer's market, grocery store, etc.</p>	<p>How many of you live on a farm?</p> <p>Many people do not live on farms and have to buy their food. Where are some places you buy food? <i>Refer to graphic of farmer's market, grocery store, etc on flip chart.</i></p> <p>Will you help me get the food I raise on the farm to the market? <i>Give each child one food group sticker as they leave the station</i></p>

Script for grades 4-6:

Station 1 - Cheeseburger Farm	
Graphics	Script
<p>Cheeseburger Farm "If you eat you are a part of agriculture."</p>	<p>Welcome to Cheeseburger Farm. <i>Get ready for an interesting adventure through Operation Health. On this adventure you will uncover clues to help you learn more about choosing nutritious foods and practicing habits to make you strong and healthy. It's going to take team work, so stack your hands together and on the count of "3" say Operation Health.</i> <i>Students stack hands together and say "Operation Health" when leader counts to "3".</i></p> <p>Why is the first stop of the adventure at a farm? <i>Farms grow plants and raise animals for the food that we eat.</i></p> <p>Would you agree that farms are the first and important part of our food supply system? <i>Yes</i></p>
<p>MyPyramid</p>	<p>Who knows what this is? <i>Refer to MyPyramid graphic on flip chart. Pause for responses.</i></p> <p>It's MyPyramid. It was designed by nutrition experts to give us clues about the types and amounts of food we should eat to be strong and healthy.</p> <p>But what do farms have to do with MyPyramid? To figure out the first clue of the Operation Health adventure you will need to find the connection between the cheeseburger ingredients, MyPyramid and the farm.</p>
<p>Orange stripe of MyPyramid Picture of wheat field</p>	<p>Which part of the cheeseburger belongs to the orange MyPyramid strip? <i>Bun</i></p> <p>What farm plant is used to make the bun? I'll give you a hint - many Oklahoma farmers grow this grain. <i>Wheat. Point out the exhibit's wheat plant.</i></p>

<p>Green stripe of MyPyramid Vegetable garden Tomato green house</p>	<p>Which part of the cheeseburger belongs to the green MyPyramid strip? <i>Lettuce & tomato</i></p> <p>What farm plants do lettuce and tomatoes come from? <i>Lettuce and tomato plants. Point out the exhibit's lettuce and tomato plants.</i></p>
<p>Red stripe of MyPyramid Fruit orchard Fruit vines</p>	<p>This is a very mysterious part of the adventure. Which part of the cheeseburger belongs to the fruit group?</p> <p>Some may say tomatoes and you are technically correct. If we use the scientific classification for tomatoes, they are fruits. But most people eat tomatoes like a vegetable.</p>
<p>Blue stripe of MyPyramid Dairy barn Dairy cattle</p>	<p>Which part of the cheeseburger belongs to the blue MyPyramid strip? <i>Cheese</i></p> <p>What is cheese made from? <i>Milk</i></p> <p>What farm animal does milk come from? <i>Cows.</i></p> <p>Yes, but not just any cow. Cows that produce milk are called dairy cows. <i>Point out the exhibit's dairy cow cut-out.</i></p>
<p>Purple stripe of MyPyramid Beef cattle</p>	<p>Which part of the cheeseburger belongs to the purple MyPyramid strip? <i>Hamburger patty or meat</i></p> <p>What farm animal gives us meat? <i>Beef cattle. Point out the exhibit's beef cattle cut-out.</i></p>
<p>Cheeseburger</p>	<p>How many food groups are in a cheeseburger? <i>Four - grains, vegetable, milk/dairy, meat</i></p> <p>Who remembers why my farm is named Cheeseburger Farm? <i>Because all the foods in a cheeseburger come from a farm.</i></p>
<p>Graphic of farmer's market, grocery store, etc.</p>	<p>But there is a little problem to solve and I need your help. All this good food needs to go to the market. Can you help me get it there? Give each child one food group sticker as they leave the station.</p>

Station 2 - To the Market

Key Concepts:

1. Food is transported away from farms and packaged for sale.
2. Food packages have labels that tell us what is in the food.

Key Outcomes:

Students in grades 1-3 will be able to s

1. Sequence the path of milk as it moves from the farm to purchase.

Students in grades 4-6 will be able to

1. Use information on the food label to make healthy food choices.

Student Activities:

Students in grades 1-3 use cards with pictures of stages of milk production, transportation, packaging and purchasing to sequence the journey of milk from the farm to consumption. (cow, milk parlor, truck, packaging, grocery store or school milk case, girl drinking milk)

Students in grades 4-6 use magnifying glasses to investigate a milk carton label.

Suggested Costume for Presenter:

Investigator's hat.

Script for grades 1-3:

Station 2 - To the Market	
Graphics	Script
	Each kind of food takes a different journey from the farm to where it is purchased. Today we are following milk as it travels from the farm to the grocery store. An interesting fact about milk is that it is not touched by humans until it touches your mouth when you drink it.
Graphic of milk parlor	Cows are milked in the part of a barn called a milking station. The milk is stored in a big tank where it is kept cool and clean.
Graphic of milk truck and processing plant.	It is picked up by a large truck that takes it to a processing plant. At the processing plant it is heated to kill bacteria. This is called pasteurization. Then, it is put into milk jugs or cartons, or made into cheese or yogurt.

<p>Picture of milk case at grocery store or school.</p>	<p>Last it is taken to places where we buy milk and other food.</p> <p>I'm going to give each of you a card with a picture showing part of the journey milk makes from the farm to the store. Let's work together to put them in the correct order. <i>Distribute picture cards to students in a random order. Ask who has the first picture of where milk comes from and have them lay it on the table. Ask what comes next and continue until each card is on the table. The correct order for the cards is cow, milking parlor, truck, packaging, milk case, girl drinking milk.</i></p> <p>Good job on helping milk get from the farm to you!</p> <p>Your next stop is a Healthy Cool Café and other places where you make healthy food choices.</p>
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Script for grades 4-6:

Station 2 - To the Market	
Graphics	Script
	<p>Each kind of food takes a different journey from the farm to where it is purchased. Today we are following milk as it travels from the farm to the grocery store. An interesting fact about milk is that it is not touched by humans until it touches your mouth when you drink it.</p>
<p>Graphic of milk parlor</p>	<p>Cows are milked in the part of a barn called a milking parlor. The milk is pumped to a big tank where it is stored and kept cool and clean.</p>
<p>Graphic of milk truck and processing plant.</p>	<p>Each day it is picked up by a large truck that takes it to a processing plant. At the processing plant it is heated to kill bacteria. This is called pasteurization. Then, it is put into milk jugs or cartons, or made into cheese or yogurt.</p>
<p>Nutrition Facts Label</p>	<p>When foods are put into packages it is also labeled with different kinds of information. Why do we need food label information? <i>To help us make healthy food choices.</i></p> <p>The clues you need to make healthy food choices are found on the label. Let's use these magnifying glasses to investigate some of the clues.</p>

	<p><i>Ask students to look for the following information on the label.</i></p> <p>How much milk is in the container?</p> <p>Find the Nutrition Facts label. It looks like this. <i>Refer to the Nutrition Facts label on the flip chart.</i></p> <p>How many servings are in the container?</p> <p>How much milk is in one serving?</p> <p>How many servings of milk do you need each day to be strong and healthy? <i>Three</i></p> <p>How much calcium is in one serving? <i>Pause briefly for response.</i></p> <p>What is the first ingredient? <i>Pause briefly for response.</i> The ingredient listed first is the one you are getting the most of in the food item.</p> <p>How many ingredients are listed? <i>Pause for briefly for responses.</i> The more ingredients that are listed the more a food is processed. A lot of ingredients may be a clue that the food contains added fat and sugar. These would be foods you want to eat less often.</p> <p>What is the sell-by date? The sell-by date is the last day the store can sell the milk. It is safe to drink for 5 more days.</p> <p>Congratulations - you have learned how to use food label clues to make healthy food choices. Your next stop is a Healthy Cool Café and other places where you can make healthy food choices.</p>
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Station 3 – Healthy Cool Café

Key Concepts:

1. School cafeterias offer a variety of foods from each of the food groups.

Key Outcomes:

Students will be able to

1. Explain the importance of eating a variety of foods.

Student Activities:

Students evaluate a tray of food (models) for variety using MyPyramid food groups and color as criteria.

Students receive a sticker representing a food group.

Suggested Costume for Presenter:

Apron

Script for grades 1-3:

Station 3 - Healthy Cool Café	
Graphics	Script
School serving line	<p>Welcome to the Healthy Cool Café where you can eat a variety of food. What does variety mean? <i>Having a lot of different things.</i></p> <p>What does eating a variety of foods mean? <i>Eating foods from all the food groups.</i></p> <p>Sometimes eating a variety of foods means trying new foods. Next time there is a new food in the cafeteria give it a try!</p> <p>Look at this tray of food. Let's name the food group it belongs to and the farm animal or plant it comes from.</p> <p><i>Point to each food model. Ask students to identify the food item, the food group to which it belongs, and the farm animal or plant it comes from.</i></p> <p>Would you say the tray has a variety of foods on it? <i>Yes</i></p> <p>Another way to know if you are eating a variety of foods is to have different colors of food on your plate. How many colors do you see on the tray?</p>

	<p>Choosing fruits and vegetables to eat is a good way to add color.</p>
School serving line	<p>Why is it important to eat a variety of foods? <i>To be strong and healthy.</i></p> <p>The next time you are in the cafeteria be sure to choose a variety of food to eat. Look for the Farm to You symbols and choose a food from each food group. If there is a new fruit or vegetable, be sure to try it. You might like it</p>
Organs inside body.	<p>Are you ready to learn how food from the farm gives YOU energy to grow and play?</p> <p>Good! First you will go to the mouth and then slide through the esophagus to the stomach. From the stomach you'll travel through the small intestines, muscles, bone and then pop out onto the skin. <i>Point to each organ on the flip chart as it is mentioned.</i></p>

Script for grades 4-6:

Station 3 - Healthy Cool Café	
Graphics	Script
School serving line	<p>Welcome to the Healthy Cool Café where you can eat a variety of food. What does variety mean? <i>Having a lot of different things.</i></p> <p>What does eating a variety of foods mean? <i>Eating foods from all the food groups.</i></p> <p>Different food groups provide different nutrients. Fruits and vegetables with different colors also provide different kinds of nutrients. When you are in the school cafeteria it is your responsibility to choose a variety of foods.</p> <p>Please divide into two groups. Each group has to put together a school cafeteria tray. The winner will be the group with more variety on their tray.</p> <p>How many food groups are represented on each tray?</p> <p>Having a rainbow of colors on your plate is another good clue you have variety. How many different colors are on each tray?</p>

	<p>Which food groups have a wide variety of different colors? <i>Fruits and vegetables.</i></p> <p>In the school cafeteria try to choose at least one fruit and one vegetable, or even more, every day.</p> <p>What are some other times you can choose fruits and vegetables to eat?</p> <p><i>Snacks, breakfast, dinner, choose salad or fruit instead of French fries when eating out.</i></p>
School serving line	<p>Why is it important to eat a variety of foods? <i>To get all the nutrients you need to be strong and healthy.</i></p> <p>The next time you are in the cafeteria be sure to choose a variety of food to eat. Look for the Farm to You symbols and choose a food from each food group. If there is a new fruit or vegetable, be sure to try it. You might like it!</p>
Organs inside body.	<p>Good work! You have discovered the importance of variety for strong and healthy bodies.</p> <p>In the next part of the Operation Health adventure you will learn how your body turns food into nutrients needed for good health. You will go to the mouth and then slide through the esophagus to the stomach. From the stomach you'll travel through the small intestines, muscles, bone and then pop out onto the skin.</p> <p><i>Point to each organ on the flip chart as it is mentioned.</i></p> <p>We will also talk about other choices that effect health.</p>

Station 4 - Mouth

Key Concepts:

1. You need a healthy mouth to enjoy your food.

Key Outcomes:

Students in grades 1-3 will be able to

1. Demonstrate how to floss and brush teeth properly.

Students in grades 4-6 will be able to

1. Identify use of tobacco products with mouth and lung diseases.

Student Activities:

Students in grades 1-3 use small gauge rope to practice properly flossing teeth.

Students in grades 1-3 observe good technique for brushing teeth.

Students observe a model of a mouth that is diseased due to tobacco use.

Students in grades 4-6 compare and contrast the function of a healthy and diseased lung model.

Suggested Costume for Presenter:

Orange scrub shirt.

Script for grades K-3:

Station 4 - Mouth	
Graphics	Script
Body with mouth highlighted	You are here in the body. <i>Point to the mouth.</i>
Farmer Pete surrounded by low-fat dairy foods such as low-fat milk, yogurt, low-fat cheese	How many of you have lost some of our baby teeth and have new teeth? <i>Allow a brief time for students to raise their hand?</i> How long do your new teeth have to last? <i>All your life!</i> That's right; your new teeth have to last the rest of your life! Making healthy food choices is one way you can keep your teeth healthy for a really long time. Which foods from the farm help build strong teeth? <i>(dairy foods)</i> Look at your food sticker and raise your hand and if you are a dairy food (blue sticker). What are some foods in the dairy group? <i>Point to the food surrounding Farmer Pete. (milk, yogurt and cheese)</i>

	<p>That's right. Milk and other dairy foods contain a nutrient called calcium which helps make the outside of your teeth hard.</p>
<p>Farmer Pete surrounded by fruits and vegetables.</p>	<p>There are other foods that also help build strong teeth. Farmer Pete is giving us a hint, what are they? <i>Point to the food surrounding Farmer Pete. (broccoli, strawberries and oranges)</i></p> <p>They give us a nutrient called vitamin C that helps keep our gums healthy.</p> <p>Look at your food sticker and raise your hand if you are a vegetable (green sticker) or fruit (red sticker).</p>
<p>Farmer Pete brushing his teeth.</p>	<p>What happens when we don't clean food off of our teeth? <i>Bacteria grow which causes bad breath and dental decay or cavities.</i></p> <p>What can you do to keep your mouth clean? <i>Brush and floss teeth.</i></p> <p><i>Demonstrate brushing in circles on clean mouth/dirty mouth model.</i></p> <p>When you brush your teeth move the brush in little circles over each tooth. This helps the bristles get between the teeth.</p> <p>A toothbrush can't reach all of the tiny food pieces that get stuck between your teeth. Flossing can help remove the food that gets stuck. <i>Give each pair of students a short rope. Demonstrate to students how to floss teeth by putting the rope on the floor and gently moving it up and down next to the tooth stool. Collect ropes.</i></p>
<p>Tobacco products "X" across items.</p>	<p>Besides drinking plenty of milk, eating fruits and vegetables and brushing and flossing your teeth there is one more thing you must do. What do you think it is? <i>Don't smoke. -</i></p> <p>That's right, Be tobacco free!</p> <p>What does that mean?</p> <p><i>Show diseased mouth model.</i></p> <p>This is what a tobacco user's mouth looks like inside. <i>Push lips away from teeth and show gum disease and tooth decay. Also point out sores on the tongue and lip.</i></p>

	<p>Do you think this person's teeth are going to last the rest of their life?</p> <p><i>No</i></p>
Healthy smile.	<p>We talked about how the tongue helps us taste food. It is also a muscle that rolls chewed-up food into a ball and pushes to it to the back of your mouth so it can be swallowed. Are you ready to be swallowed?</p> <p><i>Point to the narrow walkway to the stomach. Ask students to quickly look at their own smile in the mirror as they leave the mouth.</i></p>

Script for grades 4-6:

Station 4 - Mouth	
Graphics	Script
Body with mouth highlighted	<p>You are here in the body. The mouth gives us clues about how food taste. If you don't take care of your mouth think of all the wonderful clues you will miss.</p>
A smile	<p>Your mouth has several types of tissues that have different jobs important to your hunt for Operation Health.</p> <p>Why are healthy gums important? <i>They protect the bones that hold teeth in our mouth.</i></p> <p>What does the tongue do? <i>Helps taste food, helps us talk, helps us swallow</i></p> <p>What are the different flavors we taste? <i>(Sweet, salty, sour and bitter)</i></p>
Farmer Pete surrounded by low-fat dairy foods such as low-fat milk, yogurt, low-fat cheese	<p>Which food group contains foods that help build healthy teeth? <i>dairy foods</i></p> <p>What is an important nutrient in dairy foods that makes teeth hard? <i>Calcium</i></p>
Farmer Pete surrounded by fruits and vegetables	<p>Vitamin C rich foods help keep gums healthy. A clue you might not be getting enough Vitamin C is if your gums bleed, especially when you brush your teeth. Can you name some foods rich in Vitamin C? <i>Citrus fruits, tomatoes, broccoli, cabbage, bell peppers, mango, strawberries, spinach</i></p>

<p>Farmer Pete brushing teeth.</p>	<p>What does hygiene mean? <i>Keeping your body clean.</i></p> <p>What is an important hygiene habit that will keep your mouth healthy and your breath fresh? <i>Brushing and flossing teeth</i></p>
<p>Tobacco products "X" across items</p>	<p>Besides drinking plenty of milk, eating fruits and vegetables and brushing and flossing your teeth there is one more thing you must do to keep your mouth healthy. What do you think it is? <i>Don't smoke. -</i> That's right, Be tobacco free! What does that mean? Don't smoke or use smokeless tobacco.</p> <p><i>Show diseased mouth model.</i> This is what a tobacco user's mouth looks like inside. <i>Push lips away from teeth and show gum disease and tooth decay. Also point out sores on the tongue and lip.</i></p> <p>What other kinds of disease is related to smoking? <i>Lung cancer and emphysema</i></p> <p><i>Show the Lou-Wheeze lung model</i> Meet Lou-Wheeze. One of her lungs is healthy and the other is diseased. Smoking can cause lung cancer and a disease called emphysema. It puts holes in the lungs and makes it almost impossible to breath. <i>Use the pump to inflate the healthy and diseased lung.</i></p> <p>What differences do you see in the way the healthy lung works compared to the diseased lungs? <i>The diseased lung inflates and deflates slower than the healthy lung.</i></p> <p><i>(Optional activity)</i> <i>Give each student a small straw. Instruct them to put the straw in their mouth, but don't chew on it. Ask students to pinch their nose together with one hand and breathe through the straw in their mouth as long as they can but no more than one minute. Ask students to place straws in waste bag.</i></p> <p>This is what breathing would be like if you had lung disease. Do you think you could have a normal life with lung disease? What are some things you wouldn't be able to do? <i>Pause briefly for one or two responses</i></p>

<p>Healthy smile.</p>	<p>Once again, you have discovered clues to keep your mouth and teeth healthy. Can you tell me what they are?</p> <p><i>Drink milk/eat dairy foods</i></p> <p><i>Eat fruits and vegetables</i></p> <p><i>Brush your teeth</i></p> <p><i>Don't use tobacco products</i></p> <p>Good job. Keep up the good work!</p>
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Station 5 - Stomach

Key Concepts:

1. Feelings of fullness/hunger are cues to help control eating.
2. The stomach is part of the digestive system.
3. Foods are broken down into nutrients that are used to help the body grow and be healthy.

Key Outcomes:

Students will be able to

1. Relate feelings of fullness and hunger as cues to control eating.
2. Describe what happens to food in the stomach.

Student Activities:

Students pass through the esophagus and enter the stomach.
 Students compare inflation of a balloon to feelings of hunger and fullness.
 Students discuss how food is digested into different nutrients.

Script for grades 1-3:

Station 5 - Stomach	
Graphics	Script
Body with stomach highlighted	<p>Welcome to the stomach. You are here in the body. <i>Point to the highlighted stomach. Ask students to locate their stomach on their body (about even with elbows).</i></p>
Mouth, esophagus and stomach	<p>You just came from the mouth. You didn't just drop down here; you were squeezed through a tube that connects the mouth to the stomach. Does any one know what it is called? <i>Esophagus</i> <i>Show the 10" plastic tubing to illustrate the esophagus. Place one end at the bottom of your neck, letting it extend to the top of your abdomen.</i></p> <p>The esophagus is about 10 inches long in an adult and about $\frac{3}{4}$ inch in diameter.</p> <p>How long do you think it takes food to go though the esophagus? <i>Pause briefly for one or two responses.</i></p> <p>Food passes quickly through the esophagus in about 4 to 6 seconds. Liquid and soft foods move even faster.</p>

<p>Stick drawing of people depicting fullness and hunger.</p>	<p>The stomach is like a stretchy bag that holds food. When it is empty it is like a balloon with no air. <i>Show deflated balloon and stomach model</i> When you eat, it stretches to hold food while it is digested. If I blow too much air into the balloon what will happen? <i>It will burst.</i> Is that a good thing to do?</p> <p>When you put too much food into your stomach how do you feel? <i>Too full, stomach hurts, etc.</i></p> <p>When you don't eat enough food how do you feel? <i>Hungry, stomach aches, tired, etc.</i></p> <p><i>Refer to stick drawings and plates of food on flip chart.</i> Which of these stick people do you think has eaten the right amount of food? How do you think their stomach feels? <i>Pause for responses.</i></p> <p>It takes about 20 minutes for your stomach to tell your brain you have eaten enough food. If you eat too quickly you may eat too much.</p> <p>How can you "listen" to your stomach to know you have eaten the right amount of food? <i>Eat slowly.</i> <i>Stop eating when you feel full, not stuffed.</i></p>
<p>Pieces of food being divided into smaller pieces</p>	<p>Your stomach squeezes and mashes foods into small pieces with a churning action. This is called digestion. Say digestion with me. Digestion.</p> <p>The very small pieces are called nutrients. Foods from the different food groups (<i>refer to MyPyramid on the exhibit wall</i>) give us different kinds of nutrients. Each nutrient has a special job to do in your body. <i>Refer to the child's body on the exhibit during the following dialogue.</i></p> <p>Raise your hand if you have a grain group (orange) sticker. The nutrient is called carbohydrates. Say carbohydrates with me. Carbohydrates. Carbohydrates give your muscles energy to play and your</p>

	<p>brain energy to think and learn.</p> <p>Raise your hand if your sticker is the vegetable or fruit group. Fruits and vegetables give us vitamins that have many special jobs. Have any of you ever had a cut and scrap on your skin? <i>Pause for quick show of hands.</i> Vitamin C helps cuts and scraps heal.</p> <p>Raise your hand if your sticker is the milk and dairy group. An important nutrient in milk is calcium. Have any of you ever had a broken bone? <i>Pause for quick show of hands.</i> Calcium in milk helps makes your bones strong so they don't break as easily.</p> <p>Raise you hand if your sticker is the meat group. Foods from this group give us protein. Who wants to grow up to be big and strong? <i>Pause for quick show of hands.</i> Protein is used by almost every part of the body to help you grow.</p>
	<p>Why do we need to eat foods from all the food groups? <i>To get different nutrients.</i></p> <p>In the next part of the Farm to You adventure you will learn how the nutrients get into your blood and go to the part of your body where they work. Have fun!</p>

Script for grades 4-6:

Station 5 - Stomach	
Graphics	Script
Body with stomach highlighted	<p>Welcome to the stomach. You are here in the body. <i>Point to the highlighted stomach. Ask students to locate their stomach on their body (about even elbows).</i></p> <p>Your challenge in this part of the adventure is to find clues on how farm foods change into healthy bodies.</p>

<p>Mouth, esophagus and stomach</p>	<p>First, food doesn't just drop down into the stomach. It is squeezed through a tube that connects the mouth to the stomach. Does any one know what it is called? <i>Esophagus</i> <i>Show the 10" plastic tubing to illustrate the esophagus. Place one end at the bottom of your neck, letting it extend to the top of your abdomen.</i> The esophagus is about 10 inches long in an adult and about $\frac{3}{4}$ inch in diameter.</p> <p>How long do you think it takes food to go though the esophagus? <i>Pause briefly for one or two responses.</i></p> <p>Food passes quickly through the esophagus in about 4 to 6 seconds. Liquid and soft foods move even faster.</p> <p>What clue does the food group a food belongs to give us? <i>The kind of nutrient the food provides.</i></p> <p><i>Refer to the MyPyramid and child of body of child on exhibit walls during the following dialogue.</i></p> <p>Foods in the same food group have similar kinds of nutrients. Let's investigate beginning with grains. What is the main nutrient in grain foods? <i>Carbohydrates</i></p> <p>Carbohydrates give body cells energy. Which body cells need the most energy? <i>Muscle cells.</i></p> <p>Which body cells need carbohydrates to think? <i>Brain cells.</i></p> <p>Vegetables and fruits are good sources of what vitamins? <i>Vitamin A and Vitamin C</i></p> <p>Vitamin A is important for eye health, especially night vision and skin health. Vitamin C helps builds collagen, which helps cuts and scraps heal.</p> <p>Milk and dairy products are good sources of what mineral? <i>Calcium</i></p>
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	<p>Why is calcium important? <i>Calcium helps keep bones & teeth strong and healthy.</i></p> <p>What is an important nutrient in foods from the meat and beans group? <i>Protein</i></p> <p>Why is protein important? <i>Protein is builds and repairs body tissues.</i></p>
<p>Stick drawing of people depicting fullness and hunger.</p>	<p>An important clue that many people miss is listening to their stomach to know when they have eaten the right amount of food. The stomach stretches to hold food, like a balloon stretches to hold air. <i>Show deflated balloon and model of stomach.</i></p> <p>If I blow too much air into the balloon what will happen? <i>It will burst.</i></p> <p>When you put too much food into our stomach how do you feel? <i>Too full, stomach hurts, etc.</i></p> <p>When you don't eat how do you feel? <i>Hungry, stomach aches, etc.</i></p> <p><i>Refer to stick drawings and plates of food on flip chart.</i> Which of these stick people do you think has eaten the right amount of food? <i>Middle person</i></p> <p>It takes about 20 minutes for your stomach to tell your brain you have eaten enough food. If you eat too quickly you may eat too much.</p> <p>How can you "listen" to your stomach to know you have eaten the right amount of food? <i>Eat slowly.</i> <i>Stop eating when you feel full, not stuffed.</i></p>

	<p>Let's be sure you got some of the important clues.</p> <p>Food is digested into what in the stomach? <i>Nutrients</i></p> <p>If you can't see at night what should you eat more of? <i>Vitamin A or fruits and vegetables</i></p> <p>If your gums bleed when you brush your teeth what should you eat more of? <i>Vitamin C or fruits and vegetables</i></p> <p>What part of your digestive system gives you clues to control food intake? <i>Stomach</i></p> <p>Congratulations! You have discovered clues about how food is digested into nutrients that help your body be healthy. The next mystery is how those nutrients get to where they need to be.</p>
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Station 6 - Small Intestine

Key Concepts:

1. The nutrients in food are absorbed in the small intestine.
2. Fiber helps keep the small intestines healthy.

Key Outcomes:

Students will be able to

1. Discuss what happens to food in the small intestine.
2. Name foods high in fiber.

Student Activities:

Students walk through a maze with "villi" suspended from the ceiling.
 Students use the scientific process to predict and observe absorption.

Suggested Costume for Presenter:

Script for grades 1-3:

Station 6 - Small Intestine	
Graphics	Script
	Welcome to the small intestine. Please sit down.
Body with small intestine highlighted	<p>You are here in the body. <i>Point to the highlighted small intestine. Ask students to place their hands over their small intestine (lower part of abdomen).</i></p> <p>How long do you think the small intestine is? <i>Wait for response.</i></p> <p><i>Ask a student to slowly pull the rope out of the container.</i> The intestine is about 20 feet or about as long as a school bus.</p>

<p>Villi in the intestine</p>	<p>The inside of the small intestines is covered with villi (<i>vil-i</i>). Say villi with me. Villi. <i>Point to villi hanging from ceiling or graphic on exhibit wall.</i></p> <p>They look like tiny, little hairs. <i>Refer to the picture of the villi on exhibit wall.</i></p> <p>The villi's job is to move the nutrients from the digestive system into the blood. Let's use the scientific process to understand how it works. First, let's predict what will happen when the corner of a paper towel is placed into water. What do you think will happen? <i>The water is absorbed by the paper towel.</i></p> <p><i>Demonstrate placing a small corner of a white paper towel into water.</i></p> <p>What happened when the paper towel touched the water? <i>Some of the water was absorbed by the paper towel.</i></p> <p>Was your prediction correct?</p> <p>The villi absorb nutrients like a paper towel absorbs water.</p> <p>After the nutrients go into the villi they keep going through the intestinal wall and into your blood. The blood takes the nutrients to the parts of the body where they are needed.</p>
<p>Farmer Pete showing 60 % of body is water.</p>	<p>To help the nutrients travel in the blood we need water. Did you know that more than half of our body is water! We lose water when we sweat, so it's especially important to drink extra water when you are running and playing.</p>

<p>Fruits, vegetables and whole grains, nuts and beans Broom</p>	<p>The other thing our intestines need to stay healthy is fiber. We get fiber from plant foods. Which food groups include plants? <i>Grains, vegetables and fruits</i></p> <p>There are two other foods that come from plants and have fiber. Here is a riddle to help you: I can grow into a tree if a squirrel doesn't eat me. What am I? <i>Nuts.</i> The other food is beans.</p> <p>Fiber is important because it acts like a broom (<i>refer to broom</i>) by cleaning out the waste, keeping the intestines clean and healthy.</p>
	<p>When are two times you should drink more water? <i>When the weather is hot; when exercising and sweating.</i></p> <p>Do you remember a food that has fiber? <i>Fruits, vegetables, beans, nuts, grains</i></p> <p>Good job. Know you are ready to follow nutrients to learn how they work in different parts of the body.</p>

Script for grades 4-6:

Station 6 - Small Intestine	
Graphics	Script
	Welcome to the small intestine. Please sit down.
Body with small intestine highlighted	<p>You are here in the body. <i>Point to the highlighted small intestine. Ask students to place their hands over their small intestine (lower part of abdomen).</i></p> <p>How long is the small intestine? <i>Wait for response.</i></p> <p><i>Ask a student to slowly pull the rope out of the container.</i> The intestine is about 20 feet or about as long as a school bus.</p>

<p>Villi in the intestine</p>	<p>The inside of the small intestines is covered with villi (<i>vil-i</i>). <i>Point to villi hanging from ceiling or graphic on exhibit wall.</i></p> <p>They look like tiny, little hairs. <i>Refer to the picture of the villi on exhibit wall.</i></p> <p>The villa's job is to move the nutrients from the digestive system into the blood. Let's use the scientific process to understand how it works. First, let's predict what will happen when the corner of a paper towel is placed into water. What do you think will happen? <i>The water is absorbed by the paper towel.</i></p> <p><i>Demonstrate placing a small corner of a white paper towel into water.</i></p> <p>What happened when the paper towel touched the water? <i>Some of the water was absorbed by the paper towel.</i></p> <p>Was your prediction correct?</p> <p>The villi absorb nutrients like a paper towel absorbs water.</p> <p>After the nutrients go into the villi they keep going through the intestinal wall and into your blood. The blood takes the nutrients to the parts of the body where they are needed.</p>
<p>Farmer Pete showing 60 % of body is water.</p>	<p>To help the nutrients travel in the blood we need water. Did you know that more than half of our body is water! We lose water when we sweat, so it's especially important to drink extra water when you are running and playing.</p>

<p>Fruits, vegetables and whole grains, nuts and beans Broom</p>	<p>Our intestines also need fiber to stay healthy. We get fiber from plant foods. What are three food groups that provide fiber? <i>Grains, vegetables and fruits.</i></p> <p>There are also two foods in the meat group that come from plants and that are good sources of fiber. Do you know what they are? <i>Pause for response. If help is needed give the following clues:</i></p> <p>Here is a clue to help you: I come from a plant and squirrels like to eat me. What do you think they are? <i>Nuts.</i></p> <p>The other one is a popular Hispanic food. <i>beans</i></p> <p>Fiber is important because it acts like a broom (<i>refer to broom</i>) by cleaning out the waste products in our intestines.</p>
	<p>When are two times you should drink more water? <i>When the weather is hot; when exercising and sweating.</i></p> <p>Do you remember a food that has fiber? <i>Fruits, vegetables, beans, nuts, grains</i></p> <p>Good job. You have discovered some important clues to good digestive health.</p>

Station 7 - Muscles

Key Concepts:

1. Muscles need foods rich in protein and carbohydrates.
2. Exercise helps make muscles strong and flexible.

Key Outcomes:

Students will be able to

1. Name foods that help muscles grow.
2. Name foods that give muscles energy.
3. State an activity that strengthens muscles.

Student Activities:

Students feel muscles move.

Students use resistance bands to participate in a stretch and strengthening exercise.

Script for grades K-3.

Station 9 - Muscles	
Graphics	Script
Farmer Pete flexing arm muscle.	Now you are in the muscle. Without muscles you wouldn't be able to move! Everyone flex your arm muscle and place your hand on top of your bicep. <i>Straighten and bend arm as students follow.</i> Feel the muscle on the top or your arm moving. It is called the biceps muscle. Now feel the muscle on the bottom or your arm above your elbow. It is called the triceps muscle.
Muscles in the body.	Muscles are in all parts of our body. We have 636 different muscles.

<p>Pork chop, cheese, banana, bagel, sweet potato</p>	<p><i>Show muscle replica</i> This is what five pounds of muscle tissue in our body looks like. It needs foods from all the food groups to be healthy and strong.</p> <p>To grow, muscles need protein. Do you remember which foods give us protein? <i>Foods from meat and beans group. (milk and dairy foods also provide protein)</i></p> <p>Muscles also need energy. Do you remember the name of the nutrient that gives us energy? <i>Carbohydrates.</i> Which foods give us carbohydrates? <i>Grains, fruits, vegetables</i></p> <p>Grains fruits and vegetables provide carbohydrates. Carbohydrates give us energy the same way that gasoline makes a car go. If we don't eat enough, we don't have energy to go.</p>
<p>Families engaged in a variety of physical activity.</p>	<p>Besides food, what else do muscles need to be strong and healthy? <i>Exercise or physical activity</i></p> <p>We are going to do some exercises to help muscles build strength and flexibility. <i>Ask students to stand. Give each a dynaband. Instruct students to hold one end of the band in each hand and stand on the middle. Pull up both hands to stretch arm muscles. Lean to the right, lean to the left. Ask if they are feeling their muscles stretch. When finished collect dynabands.</i></p> <p>Strong bones and muscles are important for everyone in the family. What are some activities you like to do? <i>Pause for responses.</i> What are some your family likes to do together? <i>Pause for responses.</i></p>
	<p>What are two things your muscles need to be strong and healthy? <i>Eat meat and beans for protein and grains, fruits and vegetables for energy (carbohydrates).</i> <i>Exercise</i></p>

Script for grades 4-6:

Station 9 - Muscles	
Graphics	Script
Muscles in the body.	<p>Does anyone know how many different muscles we have in our bodies? <i>636</i></p> <p>Muscles need food to grow and to have energy to work. Here you will uncover clues to help you give your muscle's what they need to help you grow and go.</p>
Farmer Pete flexing arm muscle.	<p><i>Flex left arm and place right hand on bicep muscle.</i> Flex your left arm and place your right hand on top of the muscle. Straighten and bend your arm. Do you feel the muscle moving? What is the name of the muscle? <i>Biceps muscle</i></p> <p>Now feel the muscle on the bottom of your arm above your elbow. Do you know what it is called? <i>Triceps muscle</i></p>
Pork chop, cheese, banana, bagel, sweet potato	<p><i>Show muscle replica</i> This is what 5 pounds of muscle tissue looks like. It is called striated (stri-ated) muscle tissue. Do you see the straight lines of muscle fiber?</p> <p>Muscles fibers are comprised of proteins that make the muscle fibers contract to either get longer or shorter. Which food group provides high quality protein? <i>Meat and dairy or foods from animal sources.</i></p> <p>Muscles also need energy to move. Which nutrient provides the most energy in our diets? <i>Carbohydrates</i></p> <p>Which foods provide carbohydrates? <i>Grains, fruits, vegetables</i></p> <p>Carbohydrates give us energy the same way that gasoline makes a car go. If we don't eat enough, we don't have energy to go.</p> <p>There are two types of carbohydrates. Do you know what they are? <i>simple and complex</i></p>

	<p>Complex carbohydrates are the good carbs. They not only provide energy they also provide vitamins and minerals to help your body use the energy. Which food groups provide complex carbohydrates? <i>Whole grains, fruits and vegetables.</i></p>
<p>Families engaged in a variety of physical activity.</p>	<p>Besides food, what else do muscles need to be strong and healthy? <i>Exercise or physical activity</i></p> <p>We are going to do some exercises to help muscles build strength and flexibility.</p> <p><i>Ask students to stand. Give each a Dynaband. Instruct students to hold one end of the band in each hand and stand on the middle. Pull up both hands to stretch arm muscles. Lean to the right, lean to the left. Ask if they are feeling their muscles stretch. When finished collect Dynabands.</i></p> <p>Strong bones and muscles are important for everyone in the family. What are some activities you like to do? <i>Pause for responses.</i> What are some your family likes to do together? <i>Pause for responses.</i></p>
	<p>What two nutrients are especially important for muscles? <i>Protein and carbohydrates</i></p> <p>Why is exercise important for muscle health? <i>Exercise strengthens muscles and keeps them flexible.</i></p> <p>Good job. You are excellent at discovering clues leading to Operation Health.</p>

Station 8 - Bones

Key Concepts:

1. Dairy group foods build hard and strong bones.
2. Exercise helps bones be strong.

Key Outcomes:

Students will be able to

1. Name foods from the dairy group that contribute to bone health.
2. Know three servings of milk/dairy foods are recommended.
3. Identify a weight bearing exercise.

Student Activities:

Students identify dairy food groups that build strong bones.
 Students (grades 4-6) observe a model of healthy and weak bones.

Suggested Costume for Presenter:

Hard hat and tool belt

Script for grades K - 3:

Station 8 - Bones	
Graphics	Script
Skeleton	<p>Welcome to the bone station where we build strong bones.</p> <p>Why do we need strong bones? <i>To hold up our body.</i></p> <p>Feel of your ear lobe. If we didn't have bones our whole body would feel that way. We would be like jelly fish!</p>
Pictures of dairy foods Low-fat milk Cheese yogurt	<p>I'm really glad you are here because this bone has holes in it. <i>Refer to wooden bone model.</i></p> <p>I've been trying to fix it with my tools but it just isn't working. What do you think I need? <i>Foods from the milk/dairy group, milk, cheese, yogurt.</i></p> <p>Look at your food sticker, and raise your hand if you are a milk group (blue sticker). <i>Ask a student with a milk/dairy group sticker to choose a food block to place in the bone hole. Choose other students to place the remaining dairy food blocks in the bone.</i></p> <p>Why didn't any of you choose the soda can?</p>

	<p><i>Soda is not in the milk/dairy group.</i> <i>The soda can did not fit into the hole.</i> Soda is not in the milk/dairy group. And, it doesn't have any calcium in it. Only foods with calcium can fill holes in the bones. What do you think would happen if you drank soda instead of milk? <i>Bones would have holes; bones would not be strong.</i></p>
<p>Farmer Pete surrounded by dairy foods.</p>	<p>How much milk do you need each day to build strong bones? <i>Three servings.</i></p> <p>Do all three servings have to be milk? <i>Pause for responses.</i></p> <p><i>Refer to the milk group blocks in the bone model.</i> No - you can mix and match. It's okay to have 2 glasses of milk and a slice of cheese, or 1 glass of milk and a piece of cheese and carton of yogurt. They all work to build strong bones.</p> <p>When would be three good times during the day to drink milk or eat dairy foods? <i>Breakfast, lunch, dinner, snack</i></p> <p>If you choose to drink milk with your breakfast, lunch and dinner you will get enough calcium to have strong bones.</p>
<p>Students engaged in a variety of physical activity.</p>	<p>Do you know something else bones need to be strong? <i>Exercise</i></p> <p>To be strong bones also need weight bearing exercise. Weight bearing is any activity you do on your feet that works your bones and muscles. What are examples of weight bearing exercise you enjoy? <i>Pause for one or two responses. Correct responses include running, riding bike, skateboarding, soccer, swimming, dancing, etc.</i></p> <p>Those are great examples.</p>
	<p>You have one more adventure in the Farm to You journey. To get there you are going to slip through the hand bones.</p>

Script for grades 4-6:

Station 8 - Bones	
Graphics	Script
Skeleton	<p>Welcome to the bone station. Here you will learn the clues to help you build strong and healthy bones.</p> <p>Building bones is a big job because our bodies have 206 different bones. <i>Refer to the skeleton on the flip chart.</i></p> <p>Bones are long, short, thick and thin. Over half of our bones are in our hands and feet. Do you know where the smallest bone in your body is? <i>Ear</i></p> <p>Feel of your ear lobe. If we didn't have bones our whole body would feel that way. We would be like jelly fish!</p>
Picture of a bone	<p>What nutrient builds strong bones? <i>Calcium</i></p> <p>About 99% of the calcium in our body is in the bones. The other 1% is in the blood and muscles.</p> <p>Do any of you ever have muscle cramps? <i>Briefly</i> <i>pause for show of hands.</i></p> <p>Muscle cramps are a clue you may not be getting enough calcium.</p> <p>Bones act like a calcium bank for the blood and muscles. When you get enough calcium in your diet, specialized cells called osteoblasts use the calcium to build bone tissue.</p> <p>When calcium is low in your diet (such as when you don't drink enough milk), special bone cells called osteoclasts dissolve bone tissue so that the calcium can move into the blood and muscles.</p> <p><i>Show osteoporotic side of small bone model in the following dialogue.</i></p> <p>When bones dissolve more than they grow, we get holes in our bones. This condition is called osteoporosis.</p> <p><i>Compare the osteoporotic side of the bone model to the healthy side. Point out the healthy bone has more</i></p>

	<p><i>connections and fewer and smaller open places. Calcium helps build the connections.</i></p> <p>Which kind of bone do you think breaks more easily? <i>Osteoporotic bones, or the bone with fewer connections.</i></p>
Farmer Pete surrounded by dairy foods.	<p>How much milk does it take each day to keep bones strong? <i>Three servings.</i> <i>Show the milk carton, slice of cheese and yogurt blocks.</i></p> <p>Do all three servings have to be milk? <i>Pause for responses.</i></p> <p>No - you can mix and match. It's okay to have 2 glasses of milk and a slice of cheese, or 1 glass of milk and a piece of cheese and carton of yogurt.</p> <p>Do you think this can of pop is a good for building strong connections in bones? <i>Pause for responses.</i> No is right. What nutrient is it lacking? <i>Calcium.</i></p>
Students engaged in a variety of physical activity.	<p>What other health habit is needed for strong bones? <i>Exercise or physical activity.</i></p> <p>To grow stronger bones also need weight bearing exercise. Weight bearing is any activity you do on your feet that works your bones and muscles. What are examples of weight bearing exercise you enjoy? <i>Pause for one or two responses. Correct responses include running, riding bike, skateboarding, soccer, swimming, dancing, etc.</i></p> <p>Those are great examples.</p>
	<p>You have one more set of clues to discover in the journey from Farm to You: Operation Health. To find them carefully slip through the hand bones there on the wall.</p>

Station 9 - Skin

Key Concepts:

1. Frequent hand washing is important to good health.
2. Protect skin from burns, cuts, scrapes and bruises.

Key Outcomes:

Students will be able to

1. Identify important times to wash hands.
2. Know importance of using sun screen.
3. Know importance of wearing helmets and pads when riding and skating.

Student Activities:

Students use Glo-germ gel to experience how germs are spread.

Suggested Costume for Presenter:

Large sun or straw hat for female, ball cap (4-H) for males.

Script for grades 1-3:

Station 9 - Skin	
Graphics	Script
Highlighted picture of skin	You are now on the skin. Skin has a big job. It covers all of the other body parts you have visited, so it needs good care.
Calendar with fruit on every day.	You can take care of your skin from the inside and the outside. What is one way you can take of your skin from the inside? <i>Eat fruits and vegetables.</i> Fruits and vegetables give us vitamin A and vitamin C. Vitamin A helps keep skin smooth. Vitamin C helps heal cuts and scratches on our skin. Vitamin C doesn't stay in our bodies for very long, so be sure to eat fruit and vegetables everyday.

<p>Or children riding bikes and wearing protective equipment.</p>	<p>We also need to take care of the outside of our skin. How are the kids in this picture protecting their skin? <i>Wearing helmets and knee and elbow pads.</i></p> <p>That's right. Remember to wear a helmet and knee and elbow pads anytime you are doing an activity where you can fall. If you do scrap or cut your skin, what foods can help you heal faster? <i>Fruits and vegetables</i></p>
<p>Picture of a person with sunburn and person wearing sunglasses and hat.</p>	<p>Which of these persons is protecting their skin from the sun? <i>The person wearing the hat and sunglasses.</i></p> <p>If you are outside when the sun is hot remember to wear a hat and to use sunscreen lotion.</p>
<p>Hands being washed</p>	<p>Another way to protect our skin is to keep it clean. Does anyone see any germs around here? <i>Refer to hand graphic on wall with "green bacteria".</i></p> <p>Can you see germs on your hands? <i>No</i></p> <p>We can see stuff like dirt, but we can't see germs. Help me with an experiment to see how easy it is get germs on our hands.</p> <p><i>Ask for 4 to 5 volunteers (half of the group) to have pretend germs put on their hands. Explain that it doesn't hurt. Apply one "pump" of Glo-Germ to the palm of the student's hand. Ask them to rub hands together and then shake hands with a student who didn't get Glo-Germ. Allow time for students to place hands in black light box to view "fluorescent germs". Ask students to sit down after viewing "germs".</i></p> <p>Did everyone have germs on their hands? <i>Yes</i></p> <p>How did the germs get on the hands of people who didn't get the "germ lotion" <i>The germs moved when students shook hands.</i></p> <p>When are some other times you get germs on your hands? <i>Playing with pets, going to restroom, playing outside, etc.</i></p>

	<p>When should you wash your hands? <i>Before eating, after using the restroom, after playing with pets, etc.</i></p> <p>What do you need to wash your hands thoroughly? <i>Warm water, soap and rubbing.</i></p> <p>How long should you wash your hands? <i>20 seconds or about the time it takes to sing "Happy Birthday".</i></p>
	<p>This is the end of food's journey from <i>Farm to You</i>. Thank you for being good listeners. Your teacher has an activity newsletter to help you remember where food comes from and how it helps make your body strong and healthy. Be sure to take it home and share what you have learned with your parents.</p>

Script for grades 4-6:

Station 9 - Skin	
Graphics	Script
Highlighted picture of skin	Welcome to the final destination of the Farm to You: Operation Health adventure. Your job here is to find the clues for keeping skin healthy.
Calendar with fruit on every day.	<p>We take care of skin from both the inside and outside.</p> <p>What is one way you can take care of your skin from the inside? <i>Eat fruits and vegetables.</i></p> <p>What are two vitamins fruits and vegetables provide? <i>Vitamin A and vitamin C.</i></p> <p>Do you remember the jobs vitamin A and C do in the body? <i>Vitamin A helps keep skin smooth. Vitamin C helps heal cuts and scratches.</i></p> <p>Here is an important clue: Vitamin C doesn't stay in our bodies for very long, so you must eat fruits and vegetables everyday.</p>
Children riding bikes and wearing protective equipment.	<p>We also need to take care of the outside of our skin. How are the kids in this picture protecting their skin? <i>Wearing helmets and knee and elbow pads.</i></p> <p>That's right. Remember to wear a helmet and knee and elbow pads anytime you are doing an activity where you could fall. If you do scrap or cut your skin, what foods can</p>

	<p>help you heal faster? <i>Fruits and vegetables</i></p>
Picture of person with sunburn.	<p>Which of these persons is protecting their skin from the sun? <i>The person wearing the hat and sunglasses.</i></p> <p>If you are outside when the sun is hot remember to wear a hat and to use sunscreen lotion.</p>
Hands being washed	<p>Another way to protect our skin is to keep it clean. Does anyone see any germs around here? <i>Refer to hand graphic on wall with "green bacteria".</i></p> <p>Can you see germs on your hands? <i>No</i></p> <p>We can see stuff like dirt, but we can't see germs. Help me with an experiment to see how easily germs get on our hands.</p> <p><i>Ask for 4 to 5 volunteers (half of the group) to have pretend germs put on their hands. Explain that it doesn't hurt. Apply one "pump" of Glo-Germ to the palm of the student's hand. Ask them to rub hands together and then shake hands with a student who didn't get Glo-Germ. Allow time for students to place hands in black light box to view "fluorescent germs". They will appear as white spots under the black light. Ask students to be seated after viewing "germs".</i></p> <p>Did everyone have germs on their hands? <i>Yes</i></p> <p>How did the germs get on the hands of people who didn't get the "germ lotion" <i>The germs moved when students shook hands.</i></p> <p>When are some other times you get germs on your hands? <i>Playing with pets, going to restroom, playing outside, etc.</i></p> <p>When should you wash your hands? <i>Before eating, after using the restroom, after playing with pets, etc.</i></p>

	<p>What do you need to wash your hands thoroughly? <i>Warm water, soap and rubbing.</i></p> <p>How long should you wash your hands? <i>20 seconds or about the time it takes to sing "Happy Birthday".</i></p>
	<p>There were three clues to help you keep your skin healthy. What are they? <i>Eat fruits and vegetables</i> <i>Protect skin from sun, scraps and cuts.</i> <i>Wash hands or keep skin clean.</i></p> <p>Thank you for your hard work during the Farm to You: Operation Health adventure. Your teacher has an activity newsletter to help you remember the clues you need to know to keep your body strong and healthy. Be sure to take it home and share the clues with your family.</p>