Arkansas farm to YOU

Station 1: The Arkansas Plate Farm
Grades K-3

Did you know that farmers spend a lot of time growing plants and raising animals for the different foods on the Arkansas Plate? This type of work is called agriculture. Say agriculture with me. Agriculture.

Without farmers and agriculture we would not have healthy foods to eat.
If you EAT
you are a part of
AGRICULTURE.
Who knows what this is?
Refer to MyPlate graphic. Pause for responses.

It’s MyPlate. It was developed by nutrition experts to help us know how to eat healthy.

Let’s take a closer look at how farmers and MyPlate work together to help us be strong and healthy.
The orange section is the grains group. Grains, like wheat and rice, grow in fields. Many Arkansas farmers grow the wheat and rice we like to eat.

*Point to the exhibit’s rice plant and pass around the rice grain for the kids to touch.*

What part of the Arkansas Plate is made from rice?
*Rice. Point to the rice on the exhibit’s Arkansas Plate floor.*

Where does the rice grow?
*On farms.*
The green section is the vegetable group. Vegetables grow in the farmers’ fields and greenhouses. *Point out the exhibit’s tomato and soybean plants.*

What parts of the Arkansas Plate are vegetables? *Tomato, corn and soybeans (edamame). Point out the tomato, corn and soybeans on the exhibit’s Arkansas Plate.*

Where do they grow? *On farms.*
Vegetable Group

ChooseMyPlate.gov
The red section is the fruit group. Fruits like apples and peaches grow on trees in farm orchards. Other fruits like melons and strawberries, blueberries and blackberries grow in fields. 

*Point out the orchard and melon fields on the flip chart.*

What is one of your favorite fruits?

*Pause for one response.*

Where do (name of favorite fruit mentioned) grow?

*On farms.*
Fruit Group

ChooseMyPlate.gov
The blue section is the dairy group. What animal gives us dairy?
Cows. *Point to the exhibit’s dairy cow cut out.*

Where do the cows live?
*On farms called dairies.*

What part of the Arkansas Plate is in the dairy group?
*Milk. Point to the glass of milk on the exhibit’s Arkansas Plate.*
The purple section is the protein group. What plants and animals give us foods with protein? *Animal sources of proteins are are cows, pigs, chicken, fish and goats which all live on farms.*

*Even fish live in ponds on farms. Plant sources like beans, seeds and nuts grow on farms and in orchards.*

The chicken breast on our plate comes from the chicken. *Point out the exhibit’s chicken cut out.*

Eggs are another food in the protein group. Which animal do they come from? *Chicken*

Where do the animals live? *On farms.*

Where do the plants grow? *On farms.*

What part of the Arkansas Plate is in the protein group? *Chicken breast. Point out the chicken on the exhibit’s Arkansas Plate.*
Help me count the number of food groups in the Arkansas Plate.

Point to each part of the Arkansas Plate on floor and name the food group it belongs to (rice=grains; tomato, corn and beans=vegetables; strawberries, blueberries and blackberries = fruits; milk ; dairy and chicken=protein).

So we have five food groups in our plate. Who remembers why my farm is named the Arkansas Plate Farm? Because all the foods in the Arkansas Plate come from a farm.
How many of you live on a farm?

Many people do not live on farms and have to buy their food. Where are some places you buy food? Refer to graphic of farmer’s market, grocery store, etc. on flip chart.

Will you help me get the food I raise on the farm to the market?
Arkansas farm to YOU

Station 2: To Market
Grades K-3
Station 2 – To Market, To Market script for grades K-3:

Each kind of food takes a different journey from the farm to where it is purchased. Today we are following milk and rice as they travel from the farm to the grocery store. Cows used to be milked by hand, but now it is done by machines.

An interesting fact about milk is that it is not touched by humans until it touches your mouth when you drink it.
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.
Milk 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.
Last it is taken to places where we buy milk and other food.

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. 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.
Now we’re going to discover how rice gets from the farm to your plate.

In Arkansas, rice is planted in the spring and harvested in the late summer or early fall when it turns golden brown. Once ready to harvest, a combine comes through and removes the tops of the stalk which is known as the grain of the rice plant. 
*Show students tub of grain.*
The farmer will then take the rice to the grain elevator or co-op where they will clean and mill it to remove the hull. Then it is taken to the processor to get it ready to eat and finally to the store.
At the Arkansas Plate Farm we talked about how the chicken breast came from a chicken. Let’s match what plant or animal other lean protein foods come from.

*Have kids identify what animal or plant the lean cuts of meat, eggs, cheese, milk, beans, seeds and nuts come from.*

Notice there are many sources of protein foods, not just the beef cow that was on the Arkansas Plate Farm.

Your next stop is a Healthy Café and other places where you make healthy food choices.
Arkansas farm to YOU

Station 3: Healthy Cafe
Grades K-3
Welcome to the Healthy Café where you can choose a variety of food. What does variety mean? *Having a lot of different things.*

What does eating a variety of foods mean? *Eating foods from all the food groups.*

Sometimes eating a variety of foods means trying new foods. Next time there is a new food in the cafeteria, give it a try!

Let’s practice using MyPlate to build a healthy meal. Look at this MyPlate (show students the *empty MyPlate*). It has sections for each of the 5 food groups. Notice that half of the plate should be fruits and vegetables. It is important to eat grains and lean protein everyday with your fruits and vegetables but in smaller amounts. Now let’s look at this MyPlate (*food placed in proper places*) and name the food group it belongs to and the farm animal or plant it comes from.

Now can you help me fill up MyPlate with foods from all the food groups and identify what farm animal or plant it comes from?
Select one student with a tag/sticker form each food group to pick a food from their respective food group for the blank MyPlate.

Would you say MyPlate has a variety of foods on it? Yes.

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 plate?

Choosing a variety of fruits and vegetables every day is a good way to add color to your meals.

Why is it important to eat a variety of foods? To be strong and healthy.

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!
Are you ready to learn how food from the farm gives YOU energy to grow and play?

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. *Point to each organ on the flip chart as it is mentioned.*
Station 4 – Mouth script for grades K-3:

You are here in the body.
*Point to the mouth.*
You are here.
How many of you have lost some of our baby teeth and have new teeth? *Allow a brief time for students to raise their hand?*

How long do your new teeth have to last? *All your life!*

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? *Dairy foods.*

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? *Point to the food surrounding Farmer Pete. Milk, yogurt and cheese.*

That’s right. Milk and other dairy foods contain a nutrient called calcium which helps make the outside of your teeth hard.
There are other foods that also help build strong teeth. Farmer Pete is giving us a hint, what are they?

*Point to the food surrounding Farmer Pete.*

*Broccoli, strawberries and oranges.*

They give us a nutrient called vitamin C that helps keep our gums healthy.

Look at your food sticker and raise your hand if you are a vegetable (green sticker) or fruit (red sticker).
What happens when we don’t clean food off of our teeth?
*Bacteria grow which causes bad breath and dental decay or cavities.*

What can you do to keep your mouth clean?
*Brush and floss teeth.*

*Demonstrate brushing in circles on clean mouth/dirty mouth model.*
When you brush your teeth move the brush in little circles over each tooth. This helps the bristles get between the teeth.

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.  
*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. Allow a few seconds to do this. Collect ropes.*
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?  

*Don’t smoke.* –

That’s right, **Be tobacco free!**  

What does that mean?

*Show diseased (smoker’s) mouth model.*

This is what a tobacco user’s mouth looks like inside.  

*Gently push lips away from teeth and show gum disease and tooth decay. Also point out sores on the tongue and lip.*

Do you think this person’s teeth are going to last the rest of their life?  

*No.*
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 it to the back of your mouth so it can be swallowed.

Are you ready to be swallowed?
*Point to the narrow walkway to the stomach.*

As you go to the next section of the Farm To You adventure, wrap your arms around yourself and squeeze.
Arkansas farm to YOU

Station 5: The Stomach
Grades K-3
Welcome to the stomach. You are here in the body; *(point to the highlighted stomach)* you were just squeezed through a tube that connects the mouth to the stomach.

Does anyone know what it is called? *Esophagus.*
You are here.
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.

The esophagus is about 10 inches long in an adult and about ¾ inch in diameter.

How long do you think it takes food to go through the esophagus? *Pause briefly for one or two responses.*

Food passes quickly through the esophagus in about 4 to 6 seconds. Liquid and soft foods move even faster.
Esophagus and Stomach
An important clue that many people miss is listening to their stomach to know when they have eaten the right amount of food.

A few ways you can make sure you’re eating the right amount of food is to compare your food to the size of these items (refer to deck of cards, baseball and computer mouse). You can use the deck of cards to compare your meat serving.

Next time you order a hamburger, look to see if the meat is about the size of these cards. *Show students the deck of cards and the hamburger patty side by side.*

You can use the computer mouse to compare to your potatoes. *Show students the computer mouse and a potato or serving of french fries side by side.*

Lastly, a baseball is about the size of a serving of fruit or vegetable. *Show students a baseball and a piece of fruit or 1/2 cup serving of vegetable side by side.*

Now let’s try and fill this plate with correct size portions, using the deck of cards, computer mouse and baseball technique that we just discussed. *Have one student pick a food to fit in the portion plate. Discuss if it is the correct serving size.*

If you get full before you eat this amount of food, it’s okay to stop eating. And, if you are still hungry, it’s okay to eat a little more. The important thing is to eat slowly and listen to your stomach to know when you have eaten the right amount of food?

*Let’s review - how do you know when you have eaten the right amount of food for you? Stop eating when you feel full, not stuffed.*
Your stomach squeezes and mashes foods into small pieces with a churning action. This is called digestion. Say digestion with me. Digestion.

The very small pieces are called nutrients. Foods from the different food groups (refer to MyPlate on the exhibit wall) give us different kinds of nutrients. Each nutrient has a special job to do in your body. Refer to the child’s body on the exhibit.

Why do we need to eat foods from all the food groups? To get different nutrients.

In the next part of the Farm to You adventure you will learn how the nutrients get into your blood and go to part of your body where they work. Have fun!
from esophagus to small intestine

stomach
Station 6: The Small Intestine
Grades K-3
Welcome to the small intestine. Please sit down.

You are here in the body.  
*Point to the highlighted small intestine. Ask students to place their hands over their small intestine (lower part of abdomen).*

How long do you think the small intestine is?  
*Wait for response.*

*Ask a student to slowly pull the rope out of the container.*
The intestine is about 20 feet or about as long as a school bus.
You are here.
The inside of the small intestines is covered with villi (vil-i). Say villi with me. Villi.
*Point to villi hanging from ceiling or graphic on exhibit wall.*

They look like tiny, little hairs. *Refer to the picture of the villi on exhibit wall.*

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? *The water is absorbed by the paper towel.*

*Demonstrate placing a small corner of a white paper towel into water.*

What happened when the paper towel touched the water? *Some water was absorbed by the paper towel.*

Was your prediction correct?

The villi absorb nutrients like a paper towel absorbs water.

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.
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.
60% Water
The other thing our intestines need to stay healthy is fiber. We get fiber from plant foods. Which food groups include plants? *Grains, vegetables and fruits.*

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? *Nuts.*

The other food is beans.

Fiber is important because it acts like a broom (*refer to broom*) by cleaning out the waste, keeping the intestines clean and healthy.

When are two times you should drink more water? *When the weather is hot; when exercising and sweating.*

Do you remember a food that has fiber? *Show food items in basket: Fruits, vegetables, beans, nuts, grains.*

Good job. Now you are ready to follow nutrients to learn how they work in different parts of the body.
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. __*Straighten and bend arm as students follow.*__

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 are in all parts of our body. We have 636 different muscles.
Show muscle replica.
This is what one pound of muscle tissue in our body looks like. It needs foods from all the food groups to be healthy and strong.

Show fat tissue replica.
And this is what one pound of fat tissue in our body looks like. We need to exercise so we gain muscle instead of fat tissue. Notice the fat tissue replica looks larger than the same weight of muscle.

To grow, muscles need food from the protein group. Do you remember which foods give us protein? *Foods from dairy, meat and beans.*

Muscles also need energy. Do you remember what foods give us energy? *Grains, fruits, vegetables.*

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.
Besides food, what else do muscles need to be strong and healthy?  
*Exercise or physical activity.*

For muscles to stay strong, we need to be physically active for 60 minutes per day. We are going to do some exercises to help muscles build strength and flexibility. 
*Ask students to stand. Give each a dynaband. Instruct students to wrap each end around their hands once. Put the other end under foot. And do bicep curls. Next ask students to put one arm over head and reach behind back with other arm and do tricep extensions. Ask if they are feeling their muscles stretch. When finished collect dynabands.*

This type of exercise is resistance exercise. You also need to make sure you’re getting aerobic exercise. Aerobic exercise makes you breathe hard. Can you think of some exercises that make you breathe hard?  
*Running, biking, swimming, basketball, dancing or skating.*

What are some things you can do to increase physical activity?  *Pause for response.*

*What are two things your muscles need to be strong and healthy?  Eat dairy, meat and beans for protein and grains, fruits and vegetables for energy (carbohydrates). Exercise.*
Station 8: The Bones
Grades K-3
Welcome to the bone station where we build strong bones.

Why do we need strong bones?
*To hold up our body.*

Feel of your ear lobe. If we didn’t have bones our whole body would feel that way. We would be like jelly fish!
I’m really glad you are here because this bone has holes in it.  *Refer to wooden bone model.*

I’ve been trying to fix it with my tools but it just isn’t working. What do you think I need? *Foods from the milk/dairy group, milk, cheese and yogurt.*

Look at your food sticker, and raise your hand if you are a milk group (blue sticker).  
*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.*

Why didn’t any of you choose the soda can?  *Soda is not in the milk/dairy group. The soda can did not fit into the hole.*

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? *Bones would have holes; bones would not be strong.*

How much milk do you need each day to build strong bones? *Three servings.*

Do all three servings have to be milk? *Pause for responses. - Refer to the milk group blocks in the bone model.* 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.

When would be three good times during the day to drink milk or eat dairy foods?  *Breakfast, lunch, dinner or snack.*

If you choose to drink milk with your breakfast, lunch and dinner you will get enough calcium to have strong bones.
Do you know something else bones need to be strong?

*Exercise.*

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? *Pause for one or two responses. Correct responses include running, riding bike, skateboarding, soccer, swimming, dancing, etc.*

Now let’s practice a weight-bearing exercise. Can you all stand up and spread out, we’re going to do Calcium Jacks. These are jumping jacks while spelling Calcium.

You have one more adventure in the Farm to You journey. To get there you are going to slip through the hand bones.
Arkansas farm to YOU

Station 9: The Skin
Grades K-3
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.
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? 
*Eat fruits and vegetables.*

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 every day.
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Don’t forget your fruits & veggies
We also need to take care of the outside of our skin. How are the kids in this picture protecting their skin? *Wearing helmets, knee and elbow pads.*

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? *Fruits and vegetables.*
Which of these persons is protecting their skin from the sun?
*The person wearing the hat and sunglasses.*

If you are outside when the sun is hot remember to wear a hat and to use sunscreen lotion.
Another way to protect our skin is to keep it clean. Does anyone see any germs around here? Refer to hand graphic on wall with “green bacteria.” Can you see germs on your hands? No.

We can see stuff like dirt, but we can’t see germs. Ask students to stand up and divide. Allow a few seconds for each student to place hands in black light box to view “fluorescent germs.” Ask students to sit down after viewing “germs.”

Did everyone have germs on their hands? Yes.

How did the germs get on their hands? They got the germs from touching things throughout the exhibit. Like the food models, giant teeth, floor and all the props.

When should you wash your hands? Before eating, after using the restroom, after playing with pets, etc.

What do you need to wash your hands thoroughly? Warm water, soap and rubbing.

How long should you wash your hands? 20 seconds or about the time it takes to sing “Happy Birthday.”

This is the end of food’s journey from Farm to You. 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.