

GROW YOUR PALS PROGRAM GUIDE



THE NATIONAL FFA MENTORING PROGRAM

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LESSON 17

Agriculture All Around

Unit:
AGRICULTURAL AWARENESS

PRECEPTS

- B. Relationships
 - B2. Interact and work with others

NATIONAL STANDARDS

NL-ENG.K-12.6 Applying Knowledge



Lesson Type:
One-on-one

STUDENT LEARNING OBJECTIVES

As a result of this lesson, the student will ...

1. Identify personal items that come from agriculture.





TIME

Instruction time for this lesson: **15 minutes.**



RESOURCES

Agriculture—In touch with you Daily: <http://www.txfb.org/Resource%20Guide/Agriculture%20-%20Touching%20Us%20Daily/Lesson%201%20-%20Agriculture%20Touching%20Us%20Daily/Agriculture%20--%20In%20Touch%20With%20You%20Daily/Agriculture--In%20Touch%20With%20You%20Daily.pdf>
National FFA Organization, Food for America Educational Materials, 2006
National FFA Organization, Essential Learnings, 2003



TOOLS, EQUIPMENT AND SUPPLIES

- ✓ writing surface
- ✓ writing utensil
- ✓ PALS.17.AS.A – 1 per student
- ✓ PALS.17.AS.B – 1 per student
- ✓ PALS.17.Assess.A – 1 per student
- ✓ toy microphone – (optional)



KEY TERMS

The following term is presented in this lesson and appears in ***bold italics***:
by-product

INTEREST APPROACH

Use a Descartes Moment to start the conversation between the mentor and the mentee. Pose the following questions one at a time to focus thinking. Be sure to capture (on a writing surface) some of the thoughts that are shared.



What do you absolutely know about agriculture?

Allow the mentee to answer the questions. Use clarifying statements, such as “Are you sure?” and “How do you know that?” to help expand the thinking.



What do you think you know about agriculture?

Explain that we are asking for things you think you know about agriculture, but you just aren't sure.



What don't you know about agriculture?

Explain that it is okay not to know. Explain that this is the reason we are having this important lesson.

Summarize the responses that you captured on the writing surface, being sure to compliment your mentee on his or her answers.



Wow. You really know a lot about agriculture. Now that we have identified some of the things we know, some of the things we think we know and some of the things we don't know about agriculture, we are going to focus on one more very important question.

The important question is "Where is Agriculture?" Let's try to find the answer to this very important question, as we explore and learn more about agriculture.

SUMMARY OF CONTENT AND TEACHING STRATEGIES

OBJECTIVE 1. | Identify personal items that come from agriculture.



Whether or not we live on a farm, we are all affected by agriculture, because agriculture is all around us. Let's take a moment and explore our daily activities and learn where we can find the use of agricultural products. Let's take a tour of your bedroom and capture some of your favorite items on the following worksheet.

Utilize the PALS.17.AS.A worksheet to capture some of your mentees favorite items that are in their room. As the mentee fills in the worksheet with items in each category, feel free to further discuss the items to learn more about them and build a deeper relationship with your mentee. For example, if your mentee lists a particular clothing item, you may wish to ask one of the following questions: "What color is it?" "Where did you get?" "When would you wear it?"



That was fun getting to learn more about you and some of the favorite items from your room. So, of the items that we have listed, which of them do you think come from agriculture?

Allow an opportunity for your mentee to share his or her thoughts about the items he or she listed. If your mentee is struggling, you may need to help and begin the process by making some connections. For example, if he or she had a pair of jeans on the list, you can point out that the jeans are made from cotton, and that cotton is grown from a plant and harvested.



See, agriculture is all round us and it is even in your bedroom! Let's take a look at some other items that come from agriculture. Some of the items are very obvious because they come directly from plants and animals. However, there are other products that are not as obvious, and these items are made from animal and plant **by-products**.

I. By-product is something left over after using a raw product.

A. Cotton: When cotton is processed, the cotton fibers are removed from the cottonseed.

1. The fiber is then turned into cloth, which is then used to make clothes, sheets, towels and other items that we use on a daily basis.

B. Cottonseed **by-products**:

1. Cottonseed oil
 - a. The oil can be used as:
 - i. Cooking oil
 - ii. Ingredient in mayonnaise and salad dressing
 - iii. Cosmetics
 - iv. Soaps
 - v. Plastics
2. Cottonseed meal
 - a. The meal can be used for:
 - i. Livestock feed
 - ii. Fertilizer
 - iii. Fish food
3. Cottonseed hulls
 - a. The hulls can be used to make:
 - i. Livestock feed
 - ii. Plastics
 - iii. Synthetic rubber



A single cottonseed and its **by-products** can be used to make many items that we use daily, so agriculture is truly all around us. So if we are able to get all those items from cotton, let's see what other items we use that come from other agricultural products.



Use the PALS.17.AS.B worksheet to discuss additional items that are related to agriculture. Use this as an opportunity to explore additional likes and dislikes of your mentee, especially when you discuss the various types of food items.



REVIEW / SUMMARY / EVALUATION

Use the Eyewitness News Moment to interview your mentee about the different types of products and by-products that come from agriculture and how agriculture is all around us.



Today we had the opportunity to become experts on agriculture and how it is all around us. Let's spend the next few moments role-playing and then share what we have learned. I am going to be the news reporter and I will interview you, the agriculture expert, on where we can find agriculture and its products.

Ask questions related to today's information, and use the activity sheets for ideas, if needed.

APPLICATION



Large Group Suggestion: *Bring in various items that a student this age is familiar with. As a class, have the students identify how these items are related to agriculture. Utilize the Me-You-Us Moment to help facilitate the conversation around the selected items.*



Continued One-on-One Discussion/ Activity: *Create a mind-map or web of a crop or animal by identifying all of the items that come originate from it.*



EVALUATION

*Use the PALS.17.Assess.A worksheet and have the mentee draw five pictures of items that are created from the **by-products** of listed crops.*



ANSWERS TO EVALUATION:

Answers will vary. Use the PALS.17.AS.B to help check the mentees' answers.

PALS.17.AS.A

Agriculture in My Room

Identify one item from your room for each of the following categories:

Article of Clothing:	Favorite Item on our Bed:
Favorite Book or Magazine:	Item Hanging on our Wall:
Special Toy or Game:	Electronic Item:
Something on the Floor:	Other:

PALS.17.AS.B

Common Agricultural Products

Wheat *By-Products*: <Insert Pictures of Items>

Bread	Buns	Rolls	Pasta
Pancakes	Cereals	Crackers	Cookies
Livestock Feed	Poultry Feed	Plastics	Fish and Shrimp Feed

Soybean *By-Products*

Oil Products:

Coffee Creamers	Cooking Oils	Margarine	Mayonnaise
Disinfectants	Electrical	Insulation	Fungicides
Inks	Medicines	Pharmaceuticals	Salad Dressings
Sandwich Spreads	Paints	Pesticides	Putty
Soaps	Shampoos	Detergents	

Whole Soybean Products:

Baked Soybeans	Bread	Candy	Doughnut Mix
Frozen Desserts	Pancake Flour	Pie Crust	Candies
Confections	Cookies	Crackers	

Soybean Protein Products:

Antibiotics	Cosmetics	Baby Food	Bakery Ingredients
Candy Products	Cereals	Inks	Livestock Feeds
Poultry Feeds	Pet Foods	Plastics	Paints – Water-based
Noodles	Meat Products	Sausage Casings	Pesticides/Fungicides

Cottonseed *By-Products*

From the Kernel:

Livestock	Snack Food Frying	Soaps	Salad and Cooking Oil
Mayonnaise	Salad Dressing	Margarine	Explosives
Cosmetics	Rubber	Plastics	Fungicides
Insecticides			

From the Hulls

Livestock Feed	Synthetic Rubber	Plastics
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PALS.17.AS.B CONT.

Common Agricultural Products

From the Linters

Plastics	Dynamite	Bologna	Sausages
Frankfurters	Cosmetics	Paint	Toothpaste
Ice Cream	Salad Dressings	Outdoor Signs	Windshields
Recording Tapes	Clothing	Twine	Photographic and X-ray Film
Transparent Tape	Rugs	Mops	Furniture
Upholstery	Mattresses	Cotton Swabs	Cotton Balls
Papers	Currency	Fine Writing Paper	

Rice By-Products

Rice Flour:

Bakery Foods	Breakfast Cereals	Meat Products	Pancake and Waffle Mixes
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Rice Bran:

Cereals	Mixes	Vitamins	Concentrates
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Rice Hulls:

Fuel	Mulch	Abrasives
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Broken Kernels:

Pet Foods	Rice Flour
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Rice Bran Oil:

Mayonnaise	Salad Dressings	Emulsified Products	Vegetable Cooking Oils
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PALS.17.ASSESS.A

Directions:

For each crop below, draw five items that are produced using the crop's *by-products*.

Cotton:

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Rice:

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Wheat:

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