

Source Search

Grade Level(s)

K - 5

Estimated Time

45 minutes

Purpose

In this lesson students will learn that agriculture provides nearly all of the products we rely on in any given day by participating in a relay where they match an everyday item with its "source."

Materials

Interest Approach – Engagement

- *Morning Activities Images*

Activity

- Glue
- Colored index cards or card stock in 2 different colors (for mounting product pictures)
- *Source Search Pictures*, 1 copy
- Four boxes labeled "Stores," "Factories," "Farms," and "Natural Resources"
- *Source Search Reference List*, 1 copy for the teacher

Essential Files (maps, charts, pictures, or documents)

- [Morning Activities Images](#)
- [Source Search Pictures](#)
- [Source Search Reference List](#)

Vocabulary

agriculture: the science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products

mineral: a solid inorganic substance of natural occurrence obtained from mining

natural resources: materials or substances such as minerals, forests, water, and fertile land that occur in nature and can be used for economic gain

source: a place, person, or thing from which something originates

Did you know? (Ag Facts)

- *Fiber* is the word farmers and ranchers use to describe the raw product for fabric. The two most commonly used farm-produced fibers are wool and cotton.
- More than 24 million American workers (17 percent of the total US workforce), process and sell the nation's food and fiber.
- About 18 percent of all US agricultural products are exported yearly.
- Mason jars were invented in 1858 for home canning purposes.

Background Agricultural Connections

If you were to take a moment to look around and identify the items you rely on every day, they would likely include food, clothing, modes of transportation such as cars or bikes, building materials such as steel or wood, various technological devices such as cell phones or computers, and several tools and machines. Where did these items and raw materials used to make them originate? This lesson helps students answer that question.

Many people might recognize that farms provide us with whole, raw foods like fruits, vegetables, milk, meat, and eggs. They might even recognize that foods such as bread, pasta, cheese, frozen chicken nuggets, and canned foods also come from a farm, but are first prepared and packaged at a food processing facility. However, in reality, **agriculture** also provides us with a wide variety of raw materials used to make clothes, books, cosmetics, medicines, sports equipment, and much more.

Everything we make and use in society can originally be found somewhere in our environment or it is produced on farms by using **natural resources** such as land and water. Resources such as metal and glass are made from **minerals** that are extracted from the earth through the process of mining. Most plastics are a byproduct of oil which is extracted from beneath the Earth's surface. Other items we rely on from day-to-day are a product of agriculture. Farms exist in numerous sizes and various locations and include many different products ranging from food and clothing to fuel and building supplies.

While many day-to-day items were built, processed or manufactured at a factory and eventually sold at a store, it is important for students to understand that they each began as a resource of the natural world and/or a product of agriculture.

Interest Approach – Engagement

1. Ask the students, "What did you do to get ready for school this morning?"
2. Project the *Morning Activities Images* onto a large screen.
3. Point to the picture of the child eating breakfast. Ask the students what items the child used while eating breakfast. (*cereal, milk, bowl, spoon, etc.*) Ask the students what items were used to complete the other activities shown in the pictures.
4. Explain to the students that they use many different items and eat different types of food each day. Inform the students that they will be participating in an activity to learn about many of the items they use every day.

Procedures

Preparation:

1. Print and cut out the attached *Source Search Pictures* showing 40 everyday items.
 - Optional: If you prefer to get your students involved in the preparation stage (and have time), have students collect their own pictures of every day items. Gather a variety of magazines or slick ads from the Sunday newspaper and instruct your students to cut out pictures that represent items they use regularly (food, cars, soap, clothes, computer, etc.) Avoiding duplication, select 40.
2. Randomly divide the 40 pictures into two groups. Use two colors of index cards (or card stock) and glue the pictures onto the cards. Laminate the pictures for future use.
3. Obtain four containers (boxes, plastic tubs, paper box lids, or paper grocery bags) and label each with one of the following: "*Stores*," "*Factories*," "*Farms*," and "*Natural Resources*."

4. Identify a suitable location for a relay race such as an area outside, a wide hallway, or the gymnasium.



Activity

1. Divide the class into two teams. Divide the laminated pictures by color. You should have 20 pictures in each pile. If you are using red and blue index cards, you will have a red and blue team.
2. Take the students to the location of the relay race and place each team in a single file line. Be sure to have all the pictures face down in front of the first person in each line. Locate the tubs 20-50 feet away from the lines.
3. Give students the following instructions: "This is the source relay. Your job is to place each card in the tub representing the *original* source of the every day item that is pictured. When you are in the front of the line, pick up a card, look at the picture, then run to and place the picture in the correct tub based on the product's "source"— either "Stores," "Factories," "Natural Resources," or "Farms." Keep in mind that you are looking at the product, not the packaging. The next person in line goes when the person in front of them returns and crosses over the start line or hand-tags them. The returning player should go to the end of the line."
4. Ask students if they have any questions and clarify as needed. Begin the relay race and continue until all of the pictures have been sorted. The first team to finish the sort wins temporarily, but the ultimate winner will be determined by accuracy.
5. After the relay is over and the pictures are sorted, return to the classroom or have the students gather around you in a suitable location to go through the cards and discuss the correct answers. As you hold up each picture, the students can show whether they agree or disagree with the sort using the "thumbs up" or "thumbs down" signal, or another response as chosen. Use the attached [Source Search Items Reference List](#) for the correct answers and explanations for each card. If you choose to keep score to identify a winner, tally the number of cards in the correct boxes for each team..
 - **Farms:** Explain that if the item contains ingredients or raw products from a farm, the item is in the correct box. Examples would be any food items such as cereal, cookies, and milk, or any clothing item made from a natural fiber such as cotton (jeans) or wool (coat). Some items from a farm that are not eaten or worn include paint (this contains linseed or soybean oil) or fuel such as ethanol.
 - Note: After most relays, the "Farms" container will typically have only a few items in it.
 - **Natural Resources:** Explain that items in this tub should be products we get from the ocean, from plants or animals that occur naturally without management from humans, or from mining. Examples of items that should be in this box are cars, salt, water, plastic (plastic starts as oil, which is mined) synthetic fabrics (polyester, petroleum or oil products), computers, cell phones, and any metallic items. Fish or

shrimp can be caught in the wild but can also be farmed. Wood products may be in this box, but many wood products come from timber grown on farms. Let the class decide how to divide these. Remind your students that this is the “source” search. What is the “real” source of the things we use every day? Nearly all are grown or mined – farmed or extracted from the natural world.

- Note: This tub is also likely to only have a few items inside.
 - **Factories:** Explain that a factory is a place where raw ingredients are changed into the useful items we need or want; wood into furniture, ore into steel for cars, wheat into bread, and potatoes into chips. A factory assembles items to later be sold in a distribution center or store. With this information, ask students, "Can factories be the original source of any items?" (*No*) Proceed by sorting every card in the “*Factories*” box into either the “*Farms*” or “*Natural Resources*” container. After doing this, your students should understand that all products were originally grown or mined.
 - **Stores:** Move to the box labeled “*Stores*.” After receiving the explanation about factories, check for understanding by asking, "Are stores the original source of any items?" Students should realize that, like the “*Factories*” container, nothing should be in the “*Stores*” container. Stores are where we purchase items and are not their original source. Clarify that factories and stores rely on raw ingredients from the farm and natural world. Every picture or product should now be in either the “*Farms*” or “*Natural Resources*” container.
6. Explain to the students that farms need water, soil, the sun, and air to grow and raise plants and animals. To illustrate, place the “*Farms*” box inside the “*Natural Resources*” box.

Concept Elaboration and Evaluation

After conducting this activity, consider repeating the relay a second time using only two containers, “*Farms*” and “*Natural Resources*” to assess student understanding.

Review and summarize the following key concepts:

- The items we use every day either began as a resource of the natural world or was produced on a farm.
- The raw materials produced on farms are used for food, clothing, and many other items we use every day.
- Factories and stores are not the original sources of any items. Factories build, process, and/or manufacture items and stores are distribution centers.

Enriching Activities (K-2)

- Discuss the concept of needs versus wants. Ask the students to sort the items from the tubs according to whether they are needs or wants.
- Discuss the importance of conserving and managing natural resources.

Enriching Activities (3-5)

- Ask your students to create a concept web with one of the pictures used in the “Source Search” activity. Each picture should be placed in the center of a piece of large paper and the web drawn to identify associations or links to careers, natural resources or other products.
- Discuss the importance of conserving and managing natural resources.

- Read Issue 1 of Ag Today titled *Agriculture is Everywhere!* This reader can be printed or accessed digitally. It describes the connections humans make daily with agriculture from business and science to the practices of growing and selling row crops and animals to be used for food, fiber, and fuel.

Suggested Companion Resources

- Farm Pop-Ups (Activity)
- From Farm to You Coloring Sheet (Activity)
- All in Just One Cookie (Book)
- Farming (Book)
- From Start to Finish Series (Book)
- Heartland (Book)
- Homes (Book)
- Ox-Cart Man (Book)
- The Cow in Patrick O'Shanahan's Kitchen (Book)
- To Market, To Market (Book)
- Where Did My Clothes Come From? (Book)
- About Farm Animals Mini Kit (Kit)
- About...Books (Kit)
- Animal Facts (Poster, Map, Infographic)
- What Is Agriculture? (Poster, Map, Infographic)
- Growing Today for Tomorrow (Multimedia)
- If It Weren't for Farmers (Multimedia)
- Learning by Leaps: Agriculture and You (Multimedia)
- Jr. Sprout - Communities and Help Wanted (Booklets & Readers)
- Into the Outdoors: Farm Science (Website)
- My American Farm (Website)

Sources/Credits	Author(s)	Organization Affiliation
Activity adapted from Project Season, by Deborah Parrella.	Debra Spielmaker	Utah Agriculture in the Classroom