Activity: Agricultural Products

Activity Level: Basic

Source: Nebraska Agriculture in the Classroom

Purpose
Connect how common items used every day contain agriculture products.

Example Topics It Supplements
Following directions; reading comprehension; observe properties of water; measuring items (cups, teaspoons, etc.)

Activity Snapshot
1. Organize and Prepare Supplies
2. Read Background Information
3. Interest Approach
4. Conduct Activity
   Distribute Ag Products Activity Card(s). Conduct select activity/activities as individual, groups, or entire class. Make a creative agriculture project with the item(s) produced.
5. Ask follow up questions and make the connection to agriculture.
   - What supplies did we use?
   - What agricultural products did those come from?
   - What does that tell us about agriculture?
   - What can we tell our family and friends about what we did today?

State Standards It Supports
SS 2.2.2.a—Various goods and services that can be produced with the same list of resources.
SC 2.2.1.a—Observe physical properties of objects.
MA 3.3.3.d—Identify and use the appropriate tools and units of measurement, both customary and metric, to solve real-world problems involving length, weight, mass, liquid volume, and capacity.
LA 2.3.2.—Complete a task using multi-step directions.

Materials
- Ag Products Activity Card(s):
  - Play Dough
  - Rainsticks
  - From Milk to Glue
  - Fruity Fundough
  - Corn Putty

Materials vary with each activity. Read specific items needed on Ag Products Activity Cards

What’s the Connection to Agriculture?
The food we eat comes from agriculture. And so do many of the items we use each day at school and at home. We use products from agriculture to make lots of things we can use and various goods can be produced from the same resources. It is important to be aware of how agriculture is a part of our everyday lives.
PROCEDURES:

1. Organize and Prepare Supplies
   See “Materials” on cover page.
   Pre-select the Activity Card(s) that the students will do. Prepare supplies to complete the activity/activities. Make copies of the Activity Card(s) for students—either to work individually or in groups.

2. Background Information
   Students often have an awareness or understanding that the food they eat each day comes from agriculture. It is important to know that agriculture isn’t just responsible for meat, milk, and eggs. Many don’t make the connection that products we use each day are made up of components produced in agriculture. In fact, farm animals and plants contribute to many things Americans rely on or come in contact with nearly every day. From transportation necessities to musical instruments and everything in between, agriculture impacts our daily lives in ways many people may not realize.

   Farm products can be found in:
   - Natural clothing materials
   - Vitamin and mineral supplements
   - Sporting goods, including baseballs and bats
   - Plastic and rubber
   - Household cleaners and polishes
   - School supplies, such as crayons and textbooks
   - Instruments, including drums and pianos
   - Construction materials

   The activities in this lesson will focus on simple items students will make and use that highlight agricultural products.

3. Interest Approach
   Ask the students to look around the classroom. Have the students work individually or in pairs to create a list of items in the room that they think comes from agriculture and what agricultural item it comes from. (Examples might include: clothes—cotton; crayons—soybeans; glue—animal by-products; paper—trees, etc.)

   Explain that most of the items we find in our homes and in our classroom come from agriculture. Tell students that even some of the most common supplies we use come from agriculture—and today we will create something using agriculture products.

4. Conduct Activity
   a) Provide Activity Card(s) to students and complete the activity as a class, individual, or group of students.
   b) Each activity has agriculture products to highlight:
• Play Dough: liquid oil—soybeans, food coloring; flour—wheat; water—a staple for crops and animals to grow.
• Rainsticks: seeds—corn, soybeans, etc.; paper towel tube—trees (forestry); talk about how rain is important for plant growth.
• From Milk to Glue: milk—dairy.
• Fruity Fundough: flour—wheat; cornstarch—corn; water—a staple for crops and animals to grow.
• Corn Putty: cornstarch—corn; water—a staple for crops and animals to grow.

c) Use whatever product(s) created (Play Dough, Glue, etc.) and have the students create an agriculture project: i.e., cut pictures out of magazines or papers that represent agriculture products. Use the glue to create an agriculture information poster; use play dough to create animals and items found on a farm (tractors, etc.)

5. Ask Follow Up Questions and Make the Connection to Agriculture

• What supplies did we use?  
  *See individual activity card(s) for what was used*

• What agricultural products did those come from? (see individual Activity Card(s))
  
  Play Dough: liquid oil—soybeans, food coloring; flour—wheat; water—a staple for crops and animals to grow
  Rainsticks: seeds—corn, soybeans, etc.; paper towel tube—trees (forestry); talk about how rain is important for plant growth
  From Milk to Glue: milk—dairy
  Fruity Fundough: flour—wheat; cornstarch—corn; water—a staple for crops and animals to grow
  Corn Putty: cornstarch—corn; water—a staple for crops and animals to grow

• What does that tell us about agriculture?
  Agriculture is a big part of our everyday lives. Both our food and items we use come from agriculture and agriculture products.

• What can we tell our family and friends about what we did today?
  The food we eat comes from agriculture. And so do many of the items we use each day at school and at home. We use products from agriculture to make lots of things we can use. It is important to be aware of how agriculture is a part of our everyday lives.
Activity Card #1—Play Dough

Materials:
2 containers (one microwaveable) 2 cups water
2 ½ cups flour 2 Tbsp. liquid oil
½ cup salt Food Coloring
1 Tbsp. alum

Procedure:
1. Mix flour, salt, and alum in a container (container 1)
2. Mix water, liquid oil, and food coloring in the second container (container 2)
3. Place container 2 in the microwave until boiling
4. Pour heated liquid (container 2) over the dry ingredients (container 1)
5. Mix with a spoon
6. When cooled, knead the play dough with hands. Add more flour if the dough sticks to your hands.
7. Have fun!

Activity Card #2—Rainsticks

Materials:
Paper towel tube Construction paper
Seeds (corn, soybeans, etc.) Glue/Tape
Aluminum foil Scissors

Procedure:
1. Glue or tape construction paper to cover one end of the tube
2. Twist two thin pieces of aluminum foil that are 1 ½ times the length of the paper towel tube into a spring shape
3. Put the aluminum foil in the tube and add 1/10 full of seeds
4. Glue or tape construction paper to cover the other end of the tube
5. Decorate the tube
6. Turn the tube back and forth to create the sound of rain! Discuss why rain is important in agriculture.

Activity Card #3—Corn Putty

Materials:
1 cup cornstarch
1 ¼ Tbsp. water
Food coloring
Container/bowl

Procedure:
1. Put all the materials in a container or bowl
2. Blend mixture with fork
3. Mixture should flow when the bowl is tipped, but feel solid when you touch it
4. If it is too thick, add a little water/if too runny, add a little cornstarch. Enjoy!
Activity #4—From Milk to Glue

Materials:
- ½ cup milk
- 2 tsp. vinegar
- ¼ tsp. baking soda
- Small cooking pot
- Small mixing bowl

Procedure:
1. Pour ½ cup milk into a small cooking pot.
2. Heat the milk slowly, stirring the milk until it is hot, but not boiling.
3. Remove the pot from heat.
4. Add 2 tsp. vinegar and stir; lumps will begin to form.
5. Pour off the liquid and rinse the lumps in cold water. These lumps are called casein, which is milk protein.
6. Pour the lumps into a small mixing bowl and add ¼ tsp. of baking soda.
7. Slowly add a little water and stir until mixture becomes pasty.
8. You have made milk glue!
9. Store in a covered container in the refrigerator to keep from drying out.

Activity #5—Fruity Fundough

Materials:
- ¾ cup all-purpose flour
- ½ cup salt
- ½ cup cornstarch
- 1 envelope (.15 oz) soft drink mix (e.g. Kool-Aid)
- ¾ cup boiling water
- Medium mixing bowl
- Dishcloth

Procedure:
1. In a medium mixing bowl thoroughly blend flour, salt, cornstarch, and drink mix.
2. Gradually add boiling water, stirring constantly with a wooden spoon until mixture forms a ball (mixture will not look blended).
3. Cover dough with a damp dishcloth and let stand five minutes.
4. Knead warm mixture until smooth and blended, about three minutes.
5. Cover dough with a damp dishcloth and let stand for 10-15 minutes until completely cooled. Play!