

IT'S AN EARFUL

3rd Grade Ag in the Classroom Lesson Plan



Goal for presentation: Help children make a connection between agriculture and science while learning about products made using corn.

Length of presentation: 45 - 50 minutes.

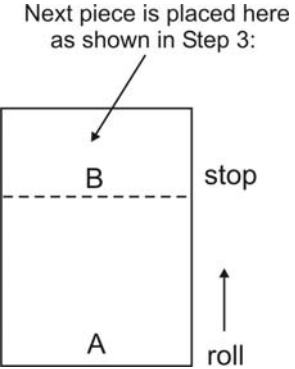
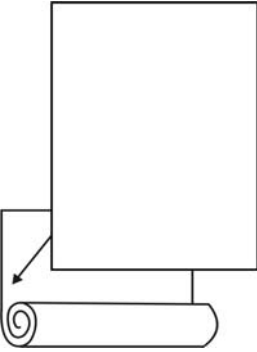
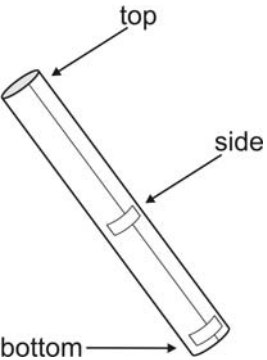
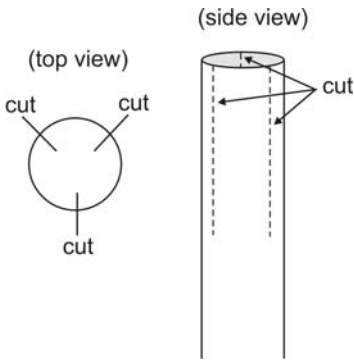
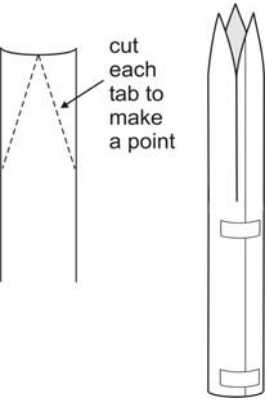


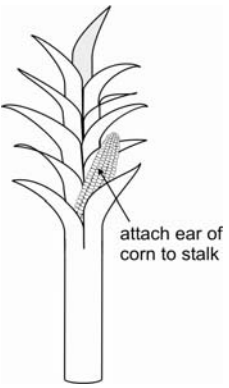
Materials needed

1. Bushel basket
2. Green paper – *3 sheets per student*
3. Scotch tape – **Presenter provides**
4. Stapler & staples – **Presenter provides**
5. Ear of field corn – *1 per presenter*
6. Ear of popcorn – *1 per presenter*
6. Ear of Indian corn – *1 per presenter*
7. Photo of sweet corn – *1 per presenter*
8. Parts of Corn Kernel poster – *1 per presenter*
9. Sample set of corn products: corn starch, corn syrup, ethanol, corn meal – *1 per presenter*
10. Starch-based packing peanuts – *1 bag per presenter*
11. Styrofoam packing peanuts (for comparison with starch-based) – *1 bag per presenter*
12. Paper ears of corn (product tags) – *1 set of 30 per class*
13. Agriculture definition poster – *1 per class to leave in classroom*
14. Student handouts:
 - Certificates of Participation – *1 per student* (signed by you in advance)
 - Illinois Ag Mag: Corn – *1 per student*
 - Corn kernel experiment bags – *1 bag per student*
15. Teacher gift bag – *1 per teacher*
16. Large pair of scissors (for your use) - **Presenter and FB provides.**
17. Several items made from/containing corn, such as baby food, hand sanitizer, ketchup, paper (a notepad works well), pet food, and non-diet soft drinks. Additional items are listed on the **Corn Fact Sheet** (in your packet). Products listed on this sheet are the same items that are listed on the students' corn-shaped product tags. – **Presenter provides.**

Procedure

1. **Introduce yourself.** Thank teacher & classroom for having you. Tell class what you do, or ask them to guess. By show of hands:
 - *How many of you live on a farm?*
 - *How many of you have a relative that lives on a farm?*
 - *How many of you have ever been to a farm?*
 - *How many of you have ever seen a corn field?*

2. **“What do you think of when you hear the word agriculture?”** Write students’ ideas on board. Discuss, then **display “Agriculture” definition poster. Emphasize out the word “science”.** Tell the class they are going to learn about the many ways science affects one area of agriculture - **CORN.**
3. **Show and discuss different kinds of corn.**
 - Show photo of **sweet corn.** *“How many of you have ever eaten corn on the cob?”*
 - Next show students an ear of **popcorn.** *“Does anyone know what this is? This is popcorn. I’ll bet many of you have eaten this kind of corn, too!”*
 - Show ear of **Indian corn.** *“What kind of corn is this? We call it Indian corn. It is usually used for decoration, but some Native Americans still use it as a traditional food.”*
 - Now show students an ear of **field corn.** *“Is this the same as the sweet corn you eat in the summer? No. This is called field corn.”* Share facts from top of **Corn Fact Sheet.** *“All the products we are going to talk about today contain ingredients from **field corn.**”*
 - *“You eat and use field corn, too, but you probably don’t realize it.”* Show a few kid-familiar items containing corn ingredients (see suggestions in Materials Needed section of page 1). *“Science helps us to use each part of the corn kernel in different ways.”*
4. **Show and explain the Parts of a Corn Kernel poster.** Pass around the sample set of corn products so that students can see what the processed components look like. Explain that starch-based packing peanuts are one example of a biodegradable product made from corn. Demonstrate how they dissolve while traditional Styrofoam packing peanuts do not by placing one of each type of peanut in a container of water and stirring or shaking.
5. **Use posters to show and explain how farmers grow corn.** The series of posters shows 1) tillage, 2) planting, 3) weed control, 4) crop scouting, and 5) harvest. Explain that grain is measured in bushels. A bushel of corn would fill your basket (**show bushel basket**).
6. **Tell the class you would like for them to help you transform their classroom into a make-believe corn field.** Each student will be a farmer to make this happen. Each “farmer” must follow directions and be a good listener so they complete the proper steps to planting their field. (This also takes a farmer with a good imagination!)
 - Have students get out their scissors.
 - Ask teacher to choose 2 volunteers to help pass out materials.
 - Have these volunteers hand out supplies as you tell the class, *“These farmers are giving us the supplies we need to grow our pretend corn.”*
 - During this time you place 2 pieces of tape on the side of each student’s desk.
 - Each student is given 3 sheets of green paper.
 - As materials are passed out, discuss the question, *“What would we need to grow a crop of real corn?”* – Equipment (tractor, planter), soil, seed corn, sunlight, water, etc.
 - You may also want to share facts from **Corn Fact Sheet** as materials are distributed.
7. **Explain and demonstrate the steps shown on following page. Pause after explaining each step to give students time to work.**

<p>1) Loosely (to just smaller than paper towel tube size) roll one piece of paper from point A about $\frac{1}{2}$ to $\frac{3}{4}$ of the way, stopping at point B.</p> 	<p>2) At the stop point ("B"), tuck in the next piece of paper. Continue rolling to about $\frac{3}{4}$ of the way, then add the third piece of paper and roll all the way.</p> 
<p>3) Tape the roll at the bottom and halfway along the side (do not tape at the top).</p> 	<p>4) Cut 3 lines about halfway down from the top of tube. Now the top of your paper tube should have three tabs. These will become leaves.</p> 
<p>5) "The tips of each corn plant leaf are pointed." Cut points at top of each tab.</p> 	<p>6) Pull gently from the center of tube to help corn "grow." Be careful not to pull too far or the stalk will unravel.</p> 
<p>7) Pull tabs downward to create leafy effect. Now you have a cornstalk!</p> 	<p>8) Explain to students that stalks of field corn usually bear only one ear. (Each ear is covered with special leaves called husks.) Staple ear of corn (product tag) to students' corn stalks until each student has one ear of corn.</p> 

8. Have students read their corn-shaped by-product tag aloud (assist if needed). Tip: To use all 30 provided tags, an extra by-product tag can be added to the stalks of students sitting in outer rows. Explain that sometimes in a cornfield outer rows will generate two ears because of increased sunlight. Alternatively, extra ears and green paper may be left with the teacher to allow students to make additional stalks at another time.

- ★ ***Invite the teacher to designate a corner of the room or the hall outside the classroom as the “cornfield” for a day or two so the students may admire their work and continue learning about the many products made from corn.***
- ★ **Challenge the students to explore the food and non-food products in their homes and at the grocery store to see how many items they can find containing corn!**

9. CONCLUSION

- Hand out Corn *Ag Mags*, bags of corn kernels, and signed certificates (students may fill in their own names).
 - Remind students & teacher of **placemat design contest**. **The entry deadline is March 12, 2010**. The 3rd grade theme is “**FARM GROWN**” (food and/or products).
 - **Answer any questions.**
 - **Thank teacher and class!**
10. Before leaving, give teacher the thank you gift bag. Point out the Food for Thought placemat contest rules/entry forms, evaluation form, and other items in the bag. **Encourage teacher to explore the presentation follow-up resources posted on our website, www.dekalbfarmbureau.org. Remind teacher to complete and submit the evaluation form.**