

Where's The Corn?

Overview

Students predict whether a food product contains corn by looking only at the picture and large print of labels. Students then read the ingredients list to determine how many of their predictions are correct. Information can be displayed in a web graphic organizer individually or as a group. Students will recognize the importance of corn by discovering that corn products are in unexpected foods.



Learning Goals:

- Make predictions
- Collect, classify, record, and organize data in appropriate forms
- Interpret and communicate information

Grade Level(s):

Grades 4, 5, 6

Approximate Time Required:

45 minutes

Subjects:

Life Science, Social Studies

Materials

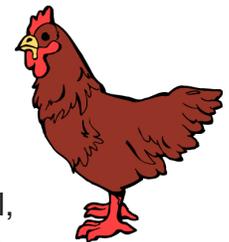
2 or 3 food product labels per student, one Corn Data Sheet per group (see pg. 4), pencils, cornmeal, corn oil, cornstarch, corn syrup

Background

Corn was a life sustaining food for the Native Americans when the Europeans arrived in North America. The development of corn was a major agricultural contribution of these early people.

Corn continues to be an important food today. Many foods, such as corn flakes, corn chips, and cornbread, are obviously made from corn. Not so obviously, processed corn products, such as corn oil, corn syrup, and cornstarch, are ingredients in many packaged foods. Approximately 75% of the packaged food items in the grocery store contain corn products.

More than half of the corn grown in the United States is used as livestock food. Since corn is also a major food for cattle, hogs, sheep, and poultry, it is indirectly a component of many foods that come from animals.



In addition, many nonfood products such as cosmetics, soaps, packing material, adhesives, inks, matches, paper products, plastics, and medicines contain corn products. For a complete list go to the National Corn Growers Association website at www.ncga.com. Corn is a major agricultural crop in the United States. More land in the U.S. is used to grow corn than any other crop. The United States produces more corn than any other country.



Procedure

Preparation

1. Ask students to bring in food labels or clean, empty food containers with labels at least one week before the activity. Do not tell them why, and do not talk about corn or corn products. The element of unexpected discovery is important.

Suggest that the students bring in labels and containers of as many types of foods as possible such as soups, candy, juice, soda, chips, snacks, cereal, frozen foods, boxed mixes, etc. Other options for collecting labels include the teacher collecting from home all labels needed or having students save clean packages and containers from their lunches.

After labels and containers have been collected, decide how many students will be in each group and how many labels each group will have. Divide and place labels and containers into grocery bags for each group.

Engage

2. Ask students to name foods made from corn. Make a list on the chalkboard. Allow students to tell about foods they like and dislike made from corn.

Explore

3. Divide students into groups of 3 or 4 students per group.
4. Tell students that they will be given a bag of food labels and containers. Tell students that when they receive the bag they should predict which foods contain corn and which do not contain corn based on the picture and the name of the product. They should sort their labels and containers quickly into these two piles.
5. Give each group a bag of labels and containers to sort.
6. Monitor students to make sure they are not reading labels and that the sorting is done quickly.
7. After the sorting is complete, hand out the Corn Data Sheet (one per group).
8. Instruct students to fill out the data sheet by first writing the name of the product and recording their prediction of whether it would or would not contain corn. They should then read the list of ingredients on the label looking for phrases containing the word corn such as cornstarch and corn syrup. If these are found in the ingredients list, the appropriate column should be marked on the data sheet.

Explain

9. Discuss - How many of the student's predictions were correct? What foods obviously contained corn? What food containing corn was the biggest surprise? Were there any foods predicted to contain corn, but did not?
10. Show the students the cornstarch, corn oil, corn syrup, and corn meal. Which products contained these ingredients? Have students read a few of the names of products that contain each of these ingredients.



11. Create a “Corn Web” graphic organizer on the floor with the actual product labels. Place an ear of corn in the center with the cornstarch, corn oil, corn meal, and corn syrup around it. Have students place product labels around the appropriate ingredient. Have them use the ingredient listed first if more than one occurs in the food item.
12. Another option would be for students to draw and label individual graphic organizers on paper.
13. Ask students to write a summary of their findings and a statement about the number of predictions that were correct.

Elaborate

14. “Sounds Corny but ... Plants are Turning into Plastic”. (From Kids Corner www.ohiocorn.org/education.htm)
15. “Follow the Trail of Corn”. (From Kids Corner www.ohiocorn.org/education.htm)
16. Write to the following for biodegradable products. (From Corn in the Classroom)

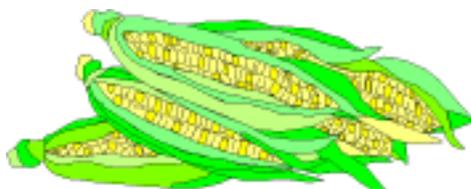
Biodegradable Corn-based ink pens
Roatan International Corporation
20 West 38th Street
New York, NY 10018
(212) 768-7538

Cornstarch-based Packing Material
American Excelsior Company
2329 Chaffee
St. Louis, MO 63146
(314) 993-5540

17. Create science experiments using cornstarch packing peanuts. Find out how variables such as light, temperature, and soil type affect decomposition.
18. Investigate the use of ethanol from corn as an additive to gasoline.

Evaluate

19. Scoring Key for “Where’s The Corn” Data Sheet (pg 4)
 - 3 - Data sheet is complete and accurate. Information in summary accurately reflects the corn web. Sentences are clear and complete.
 - 2 - Data sheet is mostly complete and accurate. Information in summary mostly reflects the corn web. Sentences mostly clear and complete.
 - 1 - Data sheet incomplete and/or inaccurate. Information in summary does not accurately reflect corn web. Sentences are not clear and/or complete.



CORN DATA SHEET

Where's the Corn

Name _____

Date _____

Name of Packaged Food	Prediction		Actual Corn Products (from ingredients list)					
	Corn	No Corn	Whole Corn	Corn Flour	Corn Starch	Corn Oil	Corn Syrup	Other Corn
1								
2								
3								
4								
5								
6								
7								
8								
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