

Where's the Corn?

Grades 1-4: Pre-trip Activity I



PERFORMANCE GOALS:

Before visiting the farm, students will learn about the many different everyday items that are made using corn.

OBJECTIVE:

Students will understand the uses of corn.

NATIONAL STANDARD:

NS.K-4.3 Life Science

As a result of activities in grades K-4, all students should develop an understanding of the characteristics of organisms, life cycles of organisms, and organisms and environments.

PREPARATION:

1. Print the clue cards on the following pages onto cardstock.
2. Cut the fact cards apart (there will be 12 cards in all) so that there's an illustration on one half of the card and an answer on the other.
3. Fold each card in half so that the illustration is on one side and the answer is on the reverse side.
4. Place all the folded cards into a farmers hat, a fishbowl, or a box decorated with illustrations of corn (decorations optional).
5. Did we mention that this is a classroom game show? So don't be afraid to get creative! If you feel like creating some flashy signage or decorations, go for it! If you like, you can enlarge and print out the game show title card on the first page of the "Where's the Corn?" Teacher Resource Sheet. You can also use a bell or a buzzer, or even bring in a boom box to play the theme music of your choice. Hey, it's your show! Go nuts!

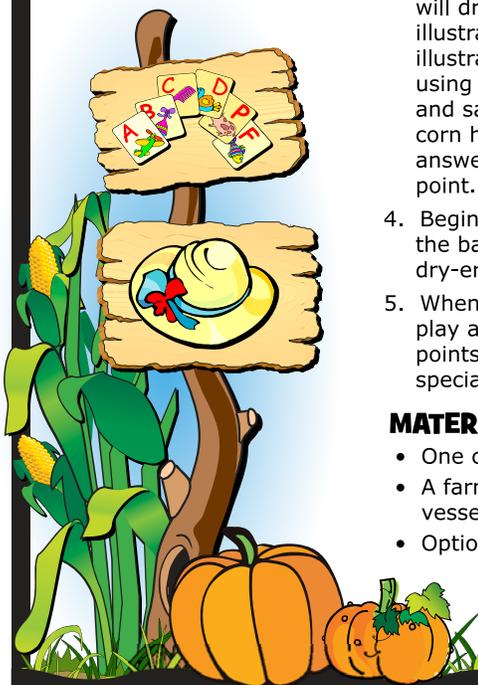
ACTIVITY:

1. Explain to your students that they are about to become contestants on a brand new game show called "Where's the Corn?" To succeed at this game show, they will need to correctly identify which everyday items shown on the clue cards are made using corn.
2. Divide your class into two, three, or four teams. Encourage the teams to come up with corny names for themselves ("True Grits" "The Niblets" etc.)
3. Provide your class with these basic game instructions: "I will call on a team and then I will draw a clue card out of the hat (box or bowl) at random. I will show everyone the illustration on the card. The members of the chosen team will then have to discuss the illustration and decide whether they think the everyday item in the illustration is made using corn. When the team is ready to give their answer, they will buzz (or ring) in and say either 'Here's the corn!' if they believe the item is made using corn, or 'No corn here!' if they think the items is not made using corn. If your team gives a correct answer, you will get a point. If your team gives an incorrect answer, you will not get a point. Whether correct or incorrect, I will then show a new card to the next team."
4. Begin game play as described above. After each team responds, read the answer from the back of the clue card. Please remember to keep score on the chalk board or dry-erase board.
5. When all the clue cards have been drawn and each team has had an opportunity to play an equal number of times, add up all the points. The team that has the most points is the winner. The winning team might get special recognition in class or a special privilege at your discretion.

MATERIALS:

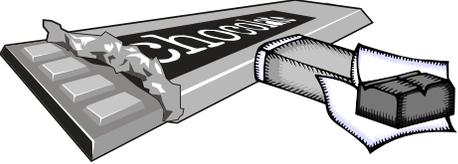
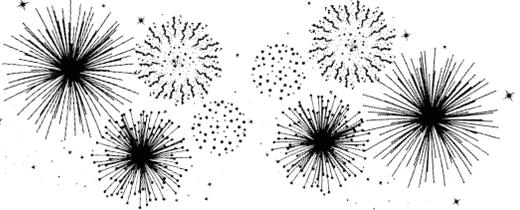
- One copy of the "Where's the Corn?" Clue Cards printed on cardstock and cut apart.
- A farmer's straw hat, gold fish bowl, or box decorated with drawings of corn. (This vessel will be used for mixing up and selecting the game cards.)
- Optional: buzzer or bells, team banners, etc. (at teacher's discretion)

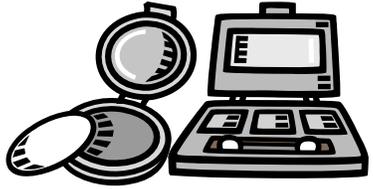
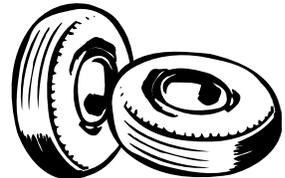
MATERIALS REQUIRED



TEACHER RESOURCE SHEET

FOR TEACHER: Using scissors or a paper cutter, cut apart the cards below. Fold each one in half so that the illustration is on one side and the answer is on the other side.

	<p>Here's the Corn!</p> <p>Soda Pop: Contains high-fructose corn syrup made from corn.</p>
	<p>No Corn Here!</p> <p>Dill Pickles: There's corn syrup in ketchup and prepared mustard, but not in dill pickles!</p>
	<p>Here's the Corn!</p> <p>Candy Bar: Many candy bars contain corn syrup.</p>
	<p>No Corn Here!</p> <p>Milk: Corn is sometimes fed to dairy cows, but there's no corn in their milk.</p>
	<p>Here's the Corn!</p> <p>Cookies: Many cookies are made with corn starch or corn flour.</p>
	<p>Here's the Corn!</p> <p>Corn is used to make Dextrin, a material to help fireworks burn correctly.</p>

	<p>Here's the Corn!</p> <p>Toothpaste: Many types of toothpaste contain an artificial sweetener made from corn sugar.</p>
	<p>Here's the Corn!</p> <p>Cosmetics: Finely ground corncobs are used to produce many kinds of make-up.</p>
	<p>Here's the Corn!</p> <p>Tires: Corn starch is sprinkled into the molds used to make tires so the rubber does not stick to them.</p>
	<p>Here's the Corn!</p> <p>Paint and Varnish: A resin from processed corncobs is an important ingredient in many types!</p>
	<p>Here's the Corn!</p> <p>Cake Mix: Many cake mixes feature corn starch as an ingredient.</p>
	<p>Here's the Corn!</p> <p>Aspirin: The pills are coated with a thin film of corn starch so they are easier to swallow.</p>



Animal Feed Match

Grades 1-4: Pre-trip Activity II

PERFORMANCE GOALS:

As students prepare for their visit to the farm, they learn that animals require certain kinds of food.

OBJECTIVES:

Students will understand the basic needs of animals on the farm.

NATIONAL STANDARD:

NS.K-4.3 Life Science

As a result of activities in grades K-4, all students should develop an understanding of the characteristics of organisms, life cycles of organisms, and organisms and environments.

PREPARATION:

1. Determine if the farm you are visiting features animals, and if so, which kind. You may wish to modify this activity depending on the types of animals your class will be seeing or skip this activity altogether if the farm has no animals.
2. If the farm you are visiting has animals, make enough copies of the "Animal Feed Match" worksheet (following page) for each student in your class.

ACTIVITY:

1. Engage your students in a discussion about their upcoming farm field trip. Explain that they will be seeing a number of different kinds of animals on the farm.
2. Ask your students: what kinds of animals do you think we'll see on the farm? What do you think farm animals need to grow up and stay healthy? You may want to make a list your students' responses on the chalk board or dry-erase board.
3. Emphasize that one very important thing that all animals need is food, and explain that different kinds of animals eat different kinds of food.
4. Distribute the "Animal Feed Match" worksheet (following page) to your students and make sure everyone has a writing implement.
5. Read the instructions out loud with your students and have them begin the assignment on their own. Walk around the classroom as they're working and provide any necessary assistance.
6. After an appropriate amount of time, ask your students to stop writing. Ask volunteers to share their answers with the class.
7. After your students have completed the worksheets and shared their answers, continue your discussion of the upcoming farm field trip by explaining which of these animals they will see on their trip, what type of animal feed they may see being grown, and what activities they will be doing at the farm.

MATERIALS REQUIRED



MATERIALS:

- "Animal Feed Match" worksheet (following page) copied on white paper
- Pencils

Here are five hungry farm animals. Can you match the animals below with their favorite meals? Here's a word list to get you started.

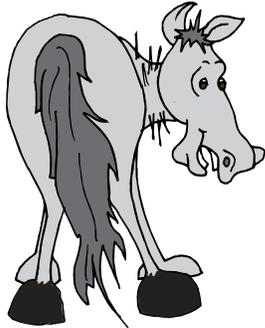
Grass

Left Over Food

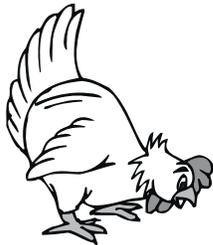
Alfalfa Hay

Corn

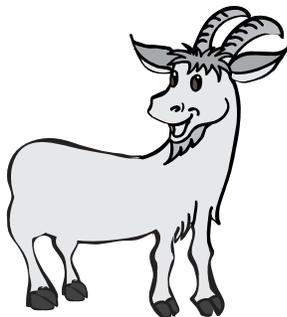
Oats



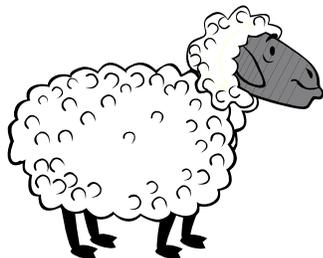
I'm big and strong and I pull things on farms.
After a hard day at work, you might find me with my nose in a feed bag full of _____ (it's a kind of grain).



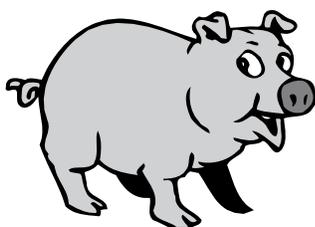
I have feathers and come in different colors.
While the eggs I lay are good for people to eat, my favorite breakfast is _____. (Hint: it grows on cobs).



I'm known for being very sure-footed and can balance on top of nearly any barnyard object. I'm closely related to sheep and my babies are called "kids."
My favorite meal is a special kind of flowering plant similar to clover that's been dried in the sun. It's called _____.



I have curly wool from which you can knit yourself a sweater.
Some people think I also make a good lawn mower because as I walk around in my pasture, I like to chew on the _____.



I have a curly tail and like to roll in the mud to cool off.
Long ago on small family farms, some people thought of me as a kind of garbage disposal because at the end of a busy day, my favorite meal was _____.



Are You Kidding Me?

Grades 1-4: Post-trip Activity I

PERFORMANCE GOALS:

Students discern "true" facts about produce and livestock from "false" facts based on information learned during their farm field trip.

OBJECTIVES:

- Students will understand the life cycle of corn, pumpkins, and animals.
- Students will understand the growth needs of corn, pumpkins, and animals.
- Students will understand the uses of corn, pumpkins, and animals.

NATIONAL STANDARD:

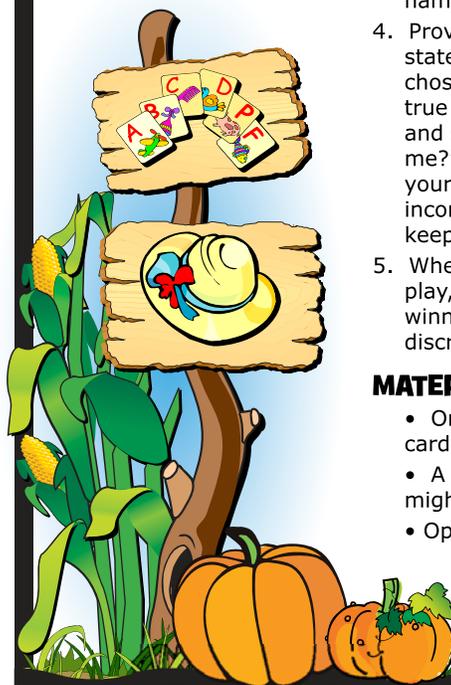
NS.K-4.3 Life Science

As a result of activities in grades K-4, all students should develop an understanding of: the characteristics of organisms, life cycles of organisms, and organisms and environments.

PREPARATION:

1. Print the fact cards on the following pages onto cardstock.
2. Cut the fact cards apart (there will be 24 cards in all).
3. Fold each card in half so that what's printed on the card cannot be seen.
4. Place all the cards into a farmer's hat, a fishbowl, or a box decorated with items you might find on a farm.
5. Did we mention that this is a classroom game show? So don't be afraid to get creative! If you feel like creating some flashy signage or decorations, go for it! You can use a bell or a buzzer, or even bring in a boom box to play the theme music of your choice. Hey, it's your show! Go nuts!

MATERIALS REQUIRED



ACTIVITY:

1. Begin by reviewing with your students their recent farm field trip. Engage them in a discussion covering some of the facts they learned during their farm visit.
2. Explain to your students that they are about to become contestants on a brand new game show called "Are You Kidding Me?" To succeed at this game show, they will need to recall some of the things they learned on their recent field trip.
3. Divide your class into two, three, or four teams. Encourage the teams to come up with names for themselves ("The Seeds of Success," "The Harvesters," etc.)
4. Provide your class with these basic game instructions: "I will call on a team and read a statement that I will draw out of the hat (box or bowl) at random. The members of the chosen team will then have to discuss the statement and decide whether they think it is true or false. When the team is ready to give their answer, they will buzz (or ring) in and say either 'No kidding!' if they believe the statement is true or 'Are you kidding me?' if they think it's false. If your team gives a correct answer, you will get a point. If your team gives an incorrect answer, you will not get a point. Whether correct or incorrect, I will then read a new statement to the next team." [Reminder: Be sure to keep score on the chalk board or dry-erase board.]
5. When all the statements have been read and each team has had an opportunity to play, add up all the points. The team that has the most points is the winner. The winning team might get special recognition in class or a special privilege at your discretion.

MATERIALS:

- One copy of the "Are You Kidding Me?" Facts Cards (see next page) printed on cardstock and cut apart.
- A farmer's hat (straw hat), gold fish bowl, or box decorated with images of items you might find on a farm. (Will be used for mixing up and selecting the game cards.)
- Optional: game sign, buzzer or bells, team banners, etc. (at teacher's discretion)

GAME FACT CARDS

FOR TEACHER: Using scissors or a paper cutter, cut apart the cards below. Fold each one in half so that the writing cannot be seen and place them all in a hat, bowl, or box. Shake or stir to mix them up.

<p>Pumpkins are a fruit.</p> <p>No kidding! (True)</p>	<p>A cow has four stomachs.</p> <p>No kidding! (True)</p>
<p>Corn kernels are the seeds of the plant.</p> <p>No kidding! (True)</p>	<p>Some pumpkins weigh more than 1,000 pounds.</p> <p>No kidding! (True)</p>
<p>Corn needs water and sunlight to grow.</p> <p>No kidding! (True)</p>	<p>Corn or substances that come from corn can be found in chewing gum, tires and baby food.</p> <p>No kidding! (True)</p>
<p>A pig can have 8-12 piglets in a single litter.</p> <p>No kidding! (True)</p>	<p>People only started growing corn 50 years ago.</p> <p>Are you kidding me? (False)</p>
<p>Pumpkins grow best without water.</p> <p>Are you kidding me? (False)</p>	<p>Native Americans were afraid to eat or use pumpkins because they thought pumpkins were poisonous.</p> <p>Are you kidding me? (False)</p>
<p>Goats are closely related to sheep.</p> <p>No kidding! (True)</p>	<p>Corn flakes are actually made from potatoes.</p> <p>Are you kidding me? (False)</p>

<p>Iowa is known as a "Corn Belt" state because farmers there wear belts made out of corn.</p> <p>Are you kidding me? (False)</p>	<p>The oinking and grunting sounds made by pigs are a form of Pig Latin.</p> <p>Are you kidding me? (False)</p>
<p>Corn was introduced to Europe by Christopher Columbus after he visited America.</p> <p>No kidding! (True)</p>	<p>Microwave popcorn can only be grown in magnetic fields.</p> <p>Are you kidding me? (False)</p>
<p>A typical hen can lay up to five eggs a day.</p> <p>Are you kidding me? (False)</p>	<p>About 1/3 of the corn grown in the USA is exported to other countries.</p> <p>No kidding! (True)</p>
<p>Pigs cannot sweat, so when they get hot, they roll in the mud to cool off.</p> <p>No kidding! (True)</p>	<p>Brown cows produce chocolate milk.</p> <p>Are you kidding me? (False)</p>
<p>Adult chickens can fly up to 20 miles a day.</p> <p>Are you kidding me? (False)</p>	<p>The average dairy cow can produce about 10 gallons of milk per day.</p> <p>No kidding! (True)</p>
<p>Maize is another word for pumpkin.</p> <p>Are you kidding me? (False)</p>	<p>Pumpkins are always orange.</p> <p>Are you kidding me? (False)</p>
<p>Goat eyes have rectangular pupils so they can better see all around them.</p> <p>No kidding! (True)</p>	<p>All pumpkins have the same number of creases in them.</p> <p>No kidding! (True)</p>



Junior Farmers Journal

Grades 1-4: Post-trip Activity II

PERFORMANCE GOALS:

Following their farm field trip, students imagine themselves as members of a farm family to gain a deeper understanding of the work farmers do. They also articulate their knowledge of this role and the responsibilities associated with the family profession in a "journal" (diary) format.

OBJECTIVES:

- Students will understand the role of the farmer.
- Students will understand the growth needs of plants and animals.
- Students will synthesize information about plants and animals that they gathered on their field trip.

NATIONAL STANDARDS:

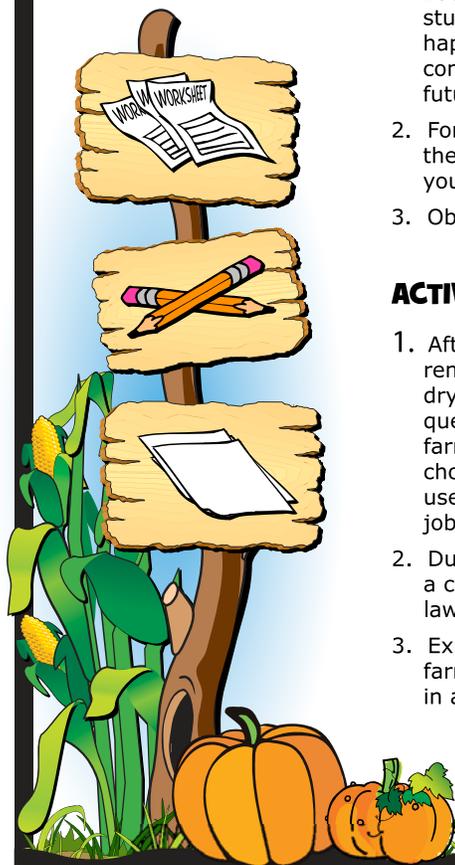
NS.K-4.3 Life Science

As a result of activities in K-4, all students should develop an understanding of the characteristics of organisms, the life cycles of organisms, and organisms and environments.

NL-ENG.K-12.7

Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g. print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

MATERIALS REQUIRED



PREPARATION:

1. For younger students – Plan to do the activity together and use the "Junior Farmers Journal" worksheet as the basis for your class work. (Alternative for younger students: plan to have each student write 1-2 sentences about something that happens on a farm and draw a picture to accompany it. The pages can then be compiled into a book that could be kept in your classroom library for reference before future farm field trips.)
2. For older students – Follow the activity as it is written, and make enough copies of the "Junior Farmers Journal" worksheet (following page) on white paper for each of your students.
3. Obtain the rest of the materials listed below.

ACTIVITY:

1. After returning from your farm field trip, discuss with your class what the students remember about the job of being a farmer and write their ideas on the chalk board or dry-erase board. To start the discussion, you might ask some of the following questions: What does a farmer do? How does he/she take care of the crops on the farm? How does he/she take care of the animals on the farm? What are some of the chores performed by different family members on a farm? What tools does a farmer use to do his/her job? Why might someone want to be a farmer? Why is a farmer's job important to all of us?
2. During the discussion, be sure to emphasize that farming is not just an activity—it's a career. And therefore farmers are considered professionals, just like doctors, lawyers, and teachers are professionals.
3. Explain to your class that they are going to imagine that they are each living on a farm as a member of a farm family. In this role, they will record their days' activities in a journal or diary. (If necessary, explain what a journal or diary is.)

ACTIVITY (continued):

4. Pass out pencils and copies of the "Junior Farmers Journal" worksheet. Take your students through the following items as a class:
 - a) Fill in your name (i.e. "Farmer Suzie.")
 - b) Choose a name for your farm and fill it in (i.e. "Smith Family Farm.")
 - c) Fill in the state where your family farm is located.
 - d) Decide what you're going to raise on your farm. Will it just have animals? Will it just have crops? Will it have a combination? What kind of animals and/or crops will it have? Fill this in on your "Journal" worksheet.
 - e) What are some of the products we get from the things your family grows/raises on your farm? Fill this in on your "Journal" worksheet.
5. Have your students write in the appropriate places on the worksheet three days worth of journal or diary entries about what they might do as a member of a farm family. They can use some of the ideas you discussed at the beginning of the class as well as their own ideas related to their specific farm. Encourage them to be as specific as possible about where in the life cycle their plants or animals are, what tools they use, and any choices or decisions they have to make.
6. For younger students – Do the activity together as a class and use the "Junior Farmers Journal" worksheet as the basis for your class work. (Alternative for younger students: Have each student write 1-2 sentences about something that happens on a farm and draw a picture to accompany it. You can then compile the pages into a book to keep in your classroom library for reference before future farm field trips.)

MATERIALS:

- "Junior Farmers Journal" Worksheet (following page)
- Pencils
- Blank sheets of paper for younger students



TEACHER RESOURCE:

There are many different types of farms that host mazes. Some are dairy farms or chicken farms; others raise pumpkins or grains; many raise livestock. A lot of farms are involved in multiple areas of farming. A typical day may be different for each of these operations. Moreover, each day on the same farm may be different depending on the stages of the crops, the needs of the animals, etc.

You can also remind your students that farm life involves many different types of activities...from fertilizing to irrigation to pest control to harvesting...even weather forecasting, plumbing, mechanics, and electrical work.

Many farms are owned and operated by families, with each member of the family--even the children--sharing in some of the chores.

Here's a "sample day" to get you acquainted with the expectations:

Before going to school this morning, I helped Mom make lunch for Dad and Jeffrey, who were shelling corn in the field. When I got home from school, I did my homework. Then Mom and I loaded the truck with corn and hay and we drove out to the pasture to feed the sheep.

In grading this activity, here are a few things to look for:

- Did the student fill in all the blanks on the worksheet appropriately?
- Do the journal entries adequately reflect the information presented during the farm field trip?
- Do the entries reflect the information covered during your in-class post-trip discussion?
- Is the student's command of spelling and sentence structure at grade level?

This journal belongs to _____ whose family
owns the _____ farm in _____
on our farm, we raise _____

Some products that come from what we raise are

Day 1

Day 2

Day 3
