

A-Farming We Will Go:

Great Ideas for Using Agriculture to Teach Reading

In this packet you will find 10 cards with some ideas for using agriculture to reinforce reading skills. Phonemic awareness, decoding, poetry, rhyming, vocabulary, word recognition, spelling, sequencing, comprehension, fluency, and distinguishing between fact and fiction are all skills covered in these activities. The cards are intended for quick reference. They can also serve as reminders for other, more in-depth lessons that are available on the Oklahoma Ag in the Classroom Web site.

On each card you will find:

- Activities, with specific skills listed.
- Quick facts about an agricultural topic.
- A list of related Oklahoma Ag in the Classroom lessons that can be found online.

Oklahoma Ag in the Classroom is a cooperative program of the Oklahoma Department of Agriculture, Food and Forestry; the Oklahoma Cooperative Extension Service and the Oklahoma State Department of Education. Funding for printing this resource is from the Oklahoma Wheat Commission.

For more information about Oklahoma Ag in the Classroom, go to the Oklahoma Ag in the Classroom website, or call 405-522-6768.



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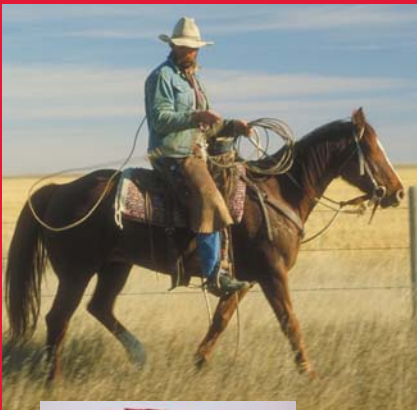
A-Farming We Will Go

Write the words in the box on the chalkboard. Sing the song below with students to the tune of “A Hunting We Will Go.” Make motions like digging or hoeing as you sing. After the first two or three verses, challenge students to make up their own rhymes with the words listed.

A farming we will go. A farming we will go.
We'll take a cow and milk it now.
A farming we will go.

- We'll take a lamb and give it to Sam.
- We'll take a plow and teach you how.
- We'll take a bowl of wheat and make some bread to eat.
- We'll take some bread and eat it in the shed.
- We'll take a duck and tell it good luck.
- We'll go to the barn and and get some yarn.
- We'll take a chick and make it quick.
- We'll take a plant and look for an ant.
- We'll take a row of corn and plow till morn.
- We'll take a field of hay and get the cow to stay.

hog
horse
bull
goat
rooster
silo
sow
pig
sheep
goose



A-Farming We Will Go



Farmer Brown's Cow (to the tune of Mary Had a Little Lamb)

Old Farmer Brown he had a cow, had a cow, had a cow
But she got sick, I don't know how.
(Chorus) All she said was Moo.

Her friend, the horse, brought lemon pie, lemon pie, lemon pie / To see if that would take her eye.
(chorus)

The little duck brought gingerbread, gingerbread, gingerbread / To see if that would clear her head.
(chorus)

The farmer's dog brought cherry tart, cherry tart, cherry tart / To ease the pain above her heart. (chorus)
The old black sheep brought ham and eggs, ham and eggs, ham and eggs / To help her stand upon her legs. (chorus)

The rooster brought her ginger ale, ginger ale, ginger ale / To keep the cow from looking pale. (chorus)
The kitten brought her applesauce, applesauce, applesauce / To keep the cow from feeling cross. (chorus)
The farmer's boy brought chocolate fudge, chocolate fudge, chocolate fudge / But still the poor cow wouldn't budge. (chorus)

The farmer's wife brought cheese soufflé, cheese soufflé, cheese soufflé / To try to chase her ills away.
(chorus)

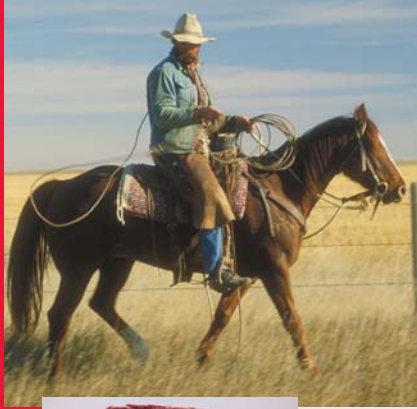
The farmer brought a load of grain, load of grain, load of grain / And then she didn't have a pain. (chorus)
Now you may want to sing some more, sing some more, sing some more. / You'll have to write your own encore. (chorus)

(Have students write verses to continue the song.)

Skills: Phonemic Awareness (Rhyming), Poetry



Farm Alphabet



- A** – agriculture, alfalfa, ax, animal, apple, asparagus
- B** – barn, bees, budget, bird, bank, butcher, beef
- C** – catfish, chemicals, cow, corn, carrot, calf, commodity, cattle, chickens
- D** – dog, duck, dairy, disk
- E** – egg, erosion, environment, ewe
- F** – fence, fertilizer, farmer, fuel, fish, flower
- G** – garden, gate, grain, goat, grow, graze, grass
- H** – hay, hog, hen, horse, herd, harvest
- I** – ink, insects, irrigation
- J** – jam, jelly
- K** – kid, kitten, key
- L** – lamb, livestock, leaf, ladybug
- M** – manure, milk, moon, mouse, machinery, money, meat
- N** – nuts, nest, nanny goat
- O** – oats, oil, owl, onions
- P** – pecan, peanut, pig, poultry, pumpkin, price, pasture

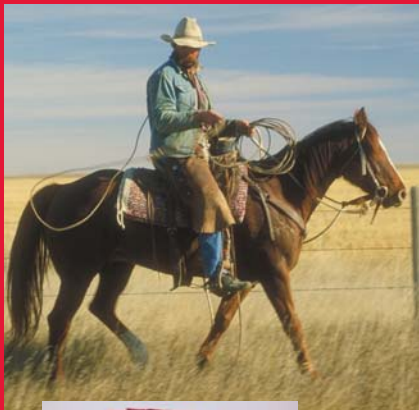
- Q** – quilt, queen bee
- R** – rain gauge, rake, road, rabbit, ram, rooster
- S** – salt, silo, soybeans, sheep, seed, swine
- T** – tractor, truck, turkey
- U** – underground
- V** – vaccine, vegetable
- W** – wheat, wildlife, wagon, wheel, water
- X** – X-ray, xeroscape
- Y** – yam, yard
- Z** – zucchini, zinnia

Play “The Barnyard Game.” Start by spelling the word “barn.” The person who is next must spell an ag-related word beginning with the last letter of barn. Then the next person must spell a word beginning with the last letter of the word the previous person spelled, and so on around the room.

Contact Jamey or Mary Ann for classroom sets of *The ABCs of Oklahoma Agriculture*.



Farm Alphabet



1. Have students recite the alphabet.
2. Go through the alphabet, one letter at a time, and name a farm-related item beginning with each letter. (See the list on the flip side of this card for examples.)
3. Assign each student a letter. Have them draw pictures illustrating farm items beginning with their assigned letters. Locate pictures in books or magazines to show to students if the items are not familiar.

Have students make as many words as they can from the word agriculture. (e.g., culture, rag, true, care, tar, rat, rut, tear)

Write an acrostic poem using the word FARM. The poem may or may not rhyme – Then try another acrostic poem using the word AGRICULTURE.

Example: **F**rom shore to shore
 Agriculture feeds us
 Rows of corn
 Make full bellies.

Skills: Vocabulary, Spelling, Poetry

A farmer tills the soil.
Grain is planted.
Rain helps it grow.
In the sun the grain grows taller.
Cows graze in a field nearby.
Under the ground, worms do their part.
Later in the year, the grain is harvested
Tractors pull the combine
Until harvest is complete.
Rows of stubble hold the soil in place.
Everyone needs agriculture.



From Bolls to Bolts

Words like "first," "next," "then," and "last" are order words. Order words show where the sentence goes in the paragraph. They are often used in directions or in recipes. Number the following sentences to show their order. Put your numbers inside the cotton bolls. Then write the paragraph on a separate sheet of paper. Don't forget to indent.



At the gin, saws with sharp teeth pull the fibers from the seed.



Second, the cotton fiber bursts open.



Now the thread is woven into cloth and put on bolts.



Finally, the bolts are cut into jeans, shirts, dresses, towels and many other things to sew.



First, the farmer plants the cotton and waits for it to grow.



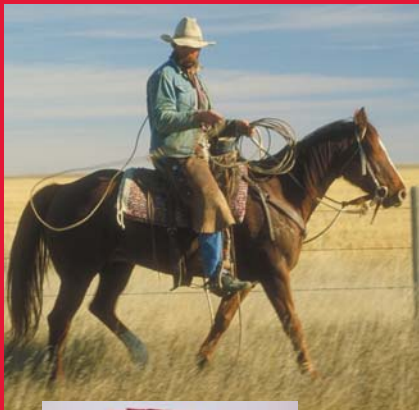
At the textile mill, fibers are spun into cotton thread.



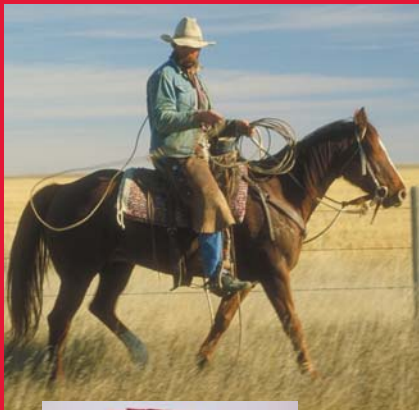
Next, the farmer loads the cotton into a truck and takes it to the cotton gin.



After that, the cotton is pressed into bales.



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Cotton farmers plant cotton in the late spring. They plant as many as eight rows at a time using mechanical planters. During the growing season scouts go into the fields to count harmful insects. If there are too many, the farmer uses pesticides to control them.

About two months after planting, flower buds called squares, appear on the plant. About three weeks later the blossoms open. First they are creamy white. Then they turn yellow, then pink, and, finally, dark red. After three days the red flowers wither and fall, leaving green pods called cotton bolls. The boll is shaped like a tiny football. Moist fibers grow and push out from the newly-formed seeds. As the boll ripens, it turns brown. The fibers continue to expand in the warm sun. Finally they split the boll apart, and the fluffy cotton bursts out

Cotton is harvested in the fall and stored at the edge of the field or loaded on trailers or trucks and carried to the cotton gin. At the cotton gin powerful pipes suck the cotton into the building and through cleaning machines. Then circular saws with small, sharp teeth pull the fiber from the seed. The ginned fiber is called lint. The lint is pressed into 480-pound bales, about the size of a refrigerator. The bales are sold to cotton merchants who sell them to textile mills. At the textile mills, huge machines spin the cotton fibers into cotton thread. The thread is then woven into cloth on looms. The rolls of cloth that come off the looms are called bolts. Clothing manufacturers buy bolts of cloth and cut jeans, shirts, dresses, and other items of clothing from them to sew.

For additional activities to use with this lesson, go to the online version: “From Bolls to Bolts.”

Other related lessons online include: Clothesline Sleuth; Just Lookin’ for a Home

Skill: Sequencing (Additional sequencing lessons online:

The Story of Milk, Wheat: From Field to Oven)

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The Truth About Pigs

Materials: chalkboard or flip chart; fiction and nonfiction books about pigs (See list on flip side of card.)

1. Discuss the difference between fact and fiction.
2. On the chalk board or flip chart, make a 3-column KWL chart.
3. Ask students to name some of the things they know about pigs and want to know. Record statements in the appropriate columns.
4. Read one of the factual books to establish facts about pigs. Discuss some of the facts. (What do pigs eat? Where do pigs live? What do pigs look like?) Record facts in the appropriate column on the chalkboard or a flip chart.
5. On another page of the flip chart, make two more columns, and label them “Real” and “Not real.” Read one of the fictional books, and discuss what is real and not real in the stories. Write characteristics in the appropriate columns.
6. Now read a few more of the books without telling students whether they are fiction or nonfiction, and have students determine which is which.
7. Discuss fantasy. Have students write their own fantasy stories about pigs and illustrate them.

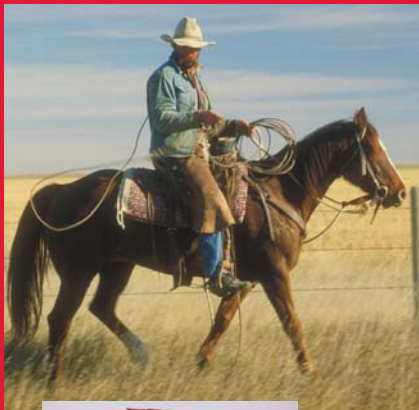
Related lessons online: “Truth or Hogwash,” Also see the “Pig Herding” activity in “Stick Horse Rodeo.”

Skills: Comprehension, Fact and Fiction, Writing



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NONFICTION BOOKS ABOUT PIGS

Gibbons, Gail, *Pigs*, Holiday House, 1990.

Older, Jules, and Lyn Severance, *Pig*,
Charlesbridge, 2004.

Pukite, John, *A Field Guide to Pigs*, Falcon,
1999.

Wolfman, Judy, and David Lorenz Winston,
Life on a Pig Farm, Lerner, 2002

FICTION BOOKS ABOUT PIGS

Lobel, Arnold, *A Treeful of Pigs*, Scholastic,
1988.

McPhail, David, *Pigs Ahoy*, Dutton, 1995.

McPhail, David, *Pigs Aplenty*, *Pigs Galore*,
Puffin, 1999.

Steig, William, *Sylvester and the Magic Pebble*,
Simon & Schuster, 1969.

Have students read two or three versions of “The Three Little Pigs” and discuss similarities and differences.

Galdone, Paul, *The Three Little Pigs*, Clarion, 1984. (standard version)

Kellogg, Steven, *The Three Little Pigs*, HarperTrophy, 2002.

Lowell, Susan, and Jim Harris, *The Three Little Javelinas*, Rising Moon, 1992.

Scieszka, Jon, and Lane Smith, *The True Story of the Three Little Pigs*, Puffin, 1996.

Trivizas, Eugene, and Helen Oxenburg, *The Three Little Wolves and the Big Bad Pig*, Macmillan,
1993.

Wiesner, David, *The Three Pigs*, Clarion, 2001

Zemach, Margot, *The Three Little Pigs: An Old Story*, Sunburst, 1991



The Real Reader

1. Choose three students to serve as “Real Readers” of the following stories. All three stories are the same, but subtle changes have been made in specific facts in the two marked “not real.”
2. Hand out copies of the “real” story to the class, and instruct students to read it.
3. Have the assigned “Real Readers” come in one at a time and say, “I am the Real Reader.”
4. Divide the class into groups of 2 or 3 students, and have each group ask the three “Real Readers” questions to determine which one has the correct story.

Skills: Language Arts (reading comprehension, vocabulary), Social Studies (history, careers)

Related Lessons online: Hit the Trail, Bill Pickett, Bulldoggin’ Cowboy, Don’t Fence Me In, Get the Point, What’s Your Brand?



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The Cowboy's Life (Real)



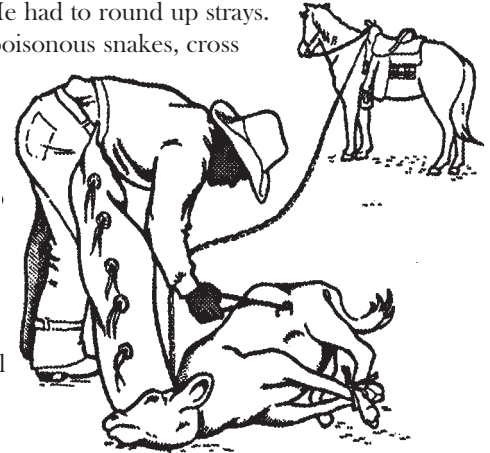
Between 1865 and 1887, millions of longhorn cattle walked from Texas, through Oklahoma, to Kansas and Missouri. Twenty-five to thirty thousand cowboys went on the trail drives.

Most of the cowboys were teenagers. Usually the oldest people on any drive were the trail boss and the cook, and their average age was 30. The young cowboy worked an exhausting schedule. He spent about 18 hours in the saddle every day for 3-4 months at a time. At night he rolled out his bedroll and slept on the bare ground.

The cowboy had to stop stampedes of nervous cattle. He had to round up strays. He had to outwit cattle rustlers. He had to watch out for poisonous snakes, cross wild rivers and keep riding even in hailstorms. Sometimes he went for two or three days without water.

The chuck wagon was the kitchen of the cattle drive. It was also the compass. Before going to sleep, the cook pointed the wagon's hitching pole toward the North Star. The next morning, it showed the cowhands which way to go.

Men chose to be cowboys because they thought it would be exciting. They wanted to prove to their families they could make it on their own. For many, working a trail drive brought in more money than they had ever seen in their lives—an average \$30 a month.



The Cowboy's Life (Not Real)



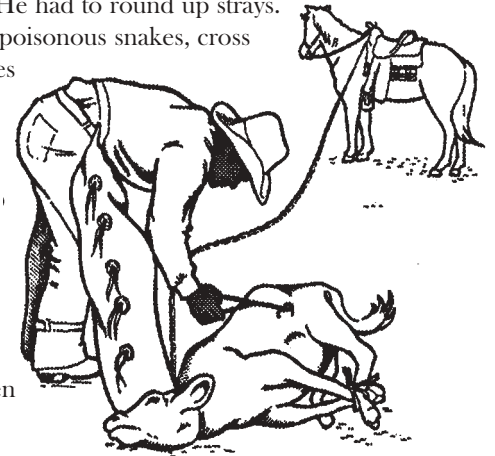
Between 1865 and 1887, millions of longhorn cattle walked from Texas, through Oklahoma, to Kansas and Missouri. Twenty-five to thirty thousand cowboys went on the trail drives.

Most of the cowboys were old men. Usually the youngest people on any drive were the trail boss and the cook, and their average age was 30. The cowboy worked an exhausting schedule. He spent about 18 hours in the saddle every day for 3-4 months at a time. At night he rolled out his bedroll and slept on the bare ground.

The cowboy had to stop stampedes of nervous cattle. He had to round up strays. He had to outwit cattle rustlers. He had to watch out for poisonous snakes, cross wild rivers and keep riding, even in hailstorms. Sometimes he went for 2-3 days without water.

The chuck wagon was the kitchen of the cattle drive. It was also the compass. Before going to sleep, the cook pointed the wagon's hitching pole toward the North Star. The next morning, it showed the cowhands which way was north.

Men chose to be cowboys because they thought it would be exciting. They wanted to prove to their families they could make a lot of money. For many, working a trail drive brought in more money than they had ever seen in their lives—an average \$30 a month.



The Cowboy's Life (Not Real)



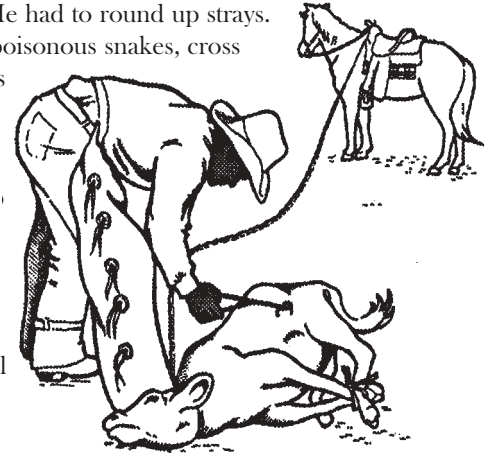
Between 1865 and 1887, millions of longhorn cattle walked from Texas, through Oklahoma, to Kansas and Missouri. Twenty-five to thirty thousand cowboys went on the trail drives.

Most of the cowboys were teenagers. Usually the youngest people on any drive were the trail boss and the cook, and their average age was 30. The young cowboy worked an exhausting schedule. He spent about 12 hours in the saddle every day for 5-6 months at a time. At night he rolled out his bedroll and slept on the bare ground.

The cowboy had to stop stampedes of nervous cattle. He had to round up strays. He had to outwit cattle rustlers. He had to watch out for poisonous snakes, cross wild rivers and keep riding, even in hailstorms. Sometimes he went for 2-3 days without food.

The chuck wagon was the kitchen of the cattle drive. It was also the compass. Before going to sleep, the cook pointed the wagon's hitching pole toward the Big Dipper. The next morning, it showed the cowhands which way to go.

Men chose to be cowboys because they thought it would be exciting. They wanted to prove to their families they could make it on their own. For many, working a trail drive brought in more money than they had ever seen in their lives—an average \$100 a month.



Vegetable Scramble

Unscramble the garden markers to find out what food grows in each row.

potatoes
squash
corn
peas
tomatoes
beans

aebns

uaqhss

mtoaotes

Now put the words in ABC order.

Write the name of a vegetable that is not on this list.

ocrn

optaoets

epas

Write the name of your favorite vegetable

Skills: Phonics/Decoding, Vocabulary

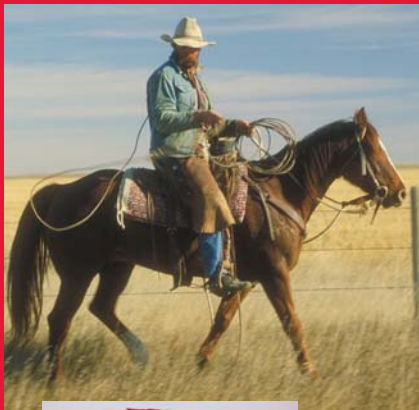


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Native Americans taught European settlers to plant **corn**. There are many different kinds of corn. Popcorn is made from one kind of corn that is allowed to dry on the stalk. The corn on the cob you like to eat is called “sweet corn.”

Beans are an ancient and important food eaten by people all over the world. They are one of the only vegetables to provide protein along with other valuable nutrients. There are many different types of beans. Two of the most popular beans grown in Oklahoma gardens are snap beans—young pods that are soft and crisp, and blackeyed peas, which are immature seeds removed from the pod.

Potatoes grow underground. They are in the nightshade family and related to the tomato and eggplant. Potatoes are one of the first vegetables to be planted in the spring. They grow best in cool weather. Like corn and beans, potatoes are native to South and Central America.

Squash is another Native American food. Squash is in the cucurbit family and related to pumpkin, cucumber and watermelon. Winter squash has tough skin and flesh that is orange like pumpkin. Summer squash has skin that is tender enough to eat. The most common kinds of squash grow in Oklahoma gardens are yellow squash and zucchini.

Peas are close relatives of beans. Like potatoes, they grow best in cool weather.

Tomatoes are the most popular vegetable grown in Oklahoma gardens. They are a native food related to potatoes. At one time, tomatoes were considered poisonous because they are related to a plant that is poisonous, the deadly nightshade.

Related lessons online: The Art of Growing Things, Fresh From the Farm, Garden Grid, Plant Parts We Eat

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Mary's Pet

Read the story, and underline the 10 vocabulary words. Some words may appear more than once. Only underline that one that appears first.

Vocabulary

Words

ewe
wool
ram
flock
fleece
lamb
shearing
lanolin
yarn
wool

A female sheep is called a ewe. The male is called a ram. Baby sheep are called lambs. A group of sheep is called a flock.

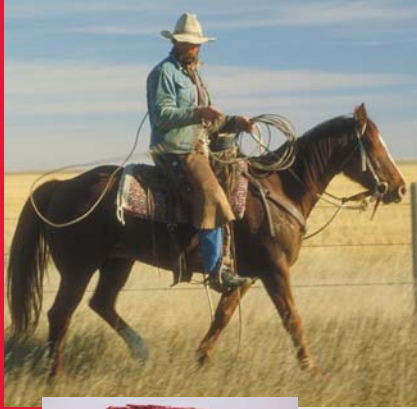
Sheep grow fluffy wool all over their bodies. This coat is called a fleece. The fleece keeps the sheep warm and dry. Sheep need their fleece cut once a year. This is called "shearing." After the fleece is sheared, it can be made into wool yarn for sweaters and other warm clothing for people.

Fleece is never white, like the lamb in "Mary Had a Little Lamb." Oil in the fleece causes dirt to cling to the coat. For a lamb to look really clean, it would have to be bathed every day. The oil in the fleece is called lanolin.

Skills: Vocabulary, Word Recognition



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Write these three nursery rhymes about sheep on a flip chart. Read the rhymes to students. Have students identify the star, or main character, in each.

Make two index cards for each of the following words (32 cards, total): lamb; sheep; and; little; has; have; had; bags; was; as; that; to; find; home; you; wool. Show students the cards, and read the words. Have students read the nursery rhymes with you. After reading each rhyme, match the cards with the words in the rhyme.

Hand out the cards to students so each has one card, and have students hide their cards from each other. Make sure there is an even number of cards so that for each word there is a match. After you have made sure each student can read the word on his/her card, have each student find the other student whose card matches his/hers. Read the nursery rhymes again. After each rhyme, have students hold up their cards if they have words that are in the rhyme.

Mary had a little lamb
Its fleece was white as snow.
And everywhere that Mary went
The Lamb was sure to go.

Little Bo-Peep has lost her sheep,
And can't tell where to find them;
Leave them alone
And they'll come home,
Bringing their tails behind them.

Baa, baa, Black Sheep
Have you any wool?
Yes, sir. Yes, sir.
Three bags full.

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Soil Erosion



Soil erosion is what happens when soil is washed or blown away. In most places, trees, grass and other plants hold soil in place. When that vegetation is removed, winds and rains can carry the soil away. Once gone, soil is not likely to be replaced within our lifetime or within several generations.

On the Southern Plains, the soil is sandy; annual rainfall is low; there are large, open areas; and high winds are common. The first European settlers allowed their livestock to roam and graze the Plains until there was very little vegetation left to hold the soil in place. Early in the 20th century, farmers plowed up the natural grass cover on the Plains and planted winter wheat. Between 1934 and 1937, the area had even less rainfall than usual. With large areas of plowed land having no grassroot system to anchor it, much of the soil blew away. The dust storms and sand storms buried roads and houses. Clouds of dust reached as far east as Washington, DC.

In response, the federal government created the Soil Erosion Service and the Civilian Conservation Corps to find ways to recover the land. Workers replanted grass, planted trees and taught farmers scientific agricultural methods to help them protect the soil.

One method was no-till farming. A farmer using this method planted crops directly in the plant stems, stalks and leaves from the last harvest. For this method to work, the farmer must use herbicides to kill unwanted grass and weeds. This method helps stop soil erosion, but some people worry that the herbicides used might pollute the underground water supply.

Skills: Comprehension, Fluency

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Soil Erosion

Identify the problem, solution, cause and effect in the information on the flip side of this card.

Problem	Soil Erosion
Solution	No-till farming
Cause	Overgrazing, clearing vegetation from soil
Effect(s)	Soil washes or blows away

Does the solution create another problem? **yes** If so, what is it? **Use of herbicides may cause water pollution.**



Short Stories



1. A chicken lays an egg. The hen sits on the egg. In about 21 days, the egg hatches. A baby chicken breaks out of the eggshell. A baby chicken is called a chick. Baby chicks eat grain. They grow very fast.
2. Baby pigs get milk from their mother. A mother pig is called a “sow.” As the baby pigs grow bigger, they eat grain. By the time they are 5 months old they weigh over 200 pounds. Now they are called hogs, and it is time to send them to the butcher. The meat the butcher gets from the hogs is called pork. The butcher cuts the pork and makes it into pork chops, ham, roasts, sausage and bacon.
3. A wheat seed is called a kernel. One kernel of wheat grows into one wheat plant. The wheat plant makes a head that has many kernels. The farmer collects the wheat in a big machine called a combine. Then the wheat is stored in a big storage tank called a grain elevator. The miller gets the wheat from the elevator and grinds it into flour. The baker makes the flour into bread, crackers, donuts, cookies, cakes and other good things to eat.
4. A fish lays a spawn of eggs in the water. The baby fish that hatch out of the eggs are called fingerlings. They swim in schools with other fish that are just their size and just like them. When the fish grow, people catch them to eat. Some people raise fish as a crop.
5. A mother dairy animal is called a cow. A cow gives milk to feed her baby. The baby is called a calf. Soon after the calf is born, it is taken from its mother and fed from a bottle. The dairy farmer keeps milking the cow. The farmer stores the milk in a large cooling tank until a truck comes to take it to the processing plant. There the milk is pasteurized and homogenized into the milk we buy at the store. It is also made into cheese, butter, ice cream and milk. Dairy farmers must milk their cows every morning and every night.

Photo Courtesy of Case IH



Short Stories

The questions below come from the farm stories on the flip side of this card. Write the correct answer. If you need help, use the Answer Box.

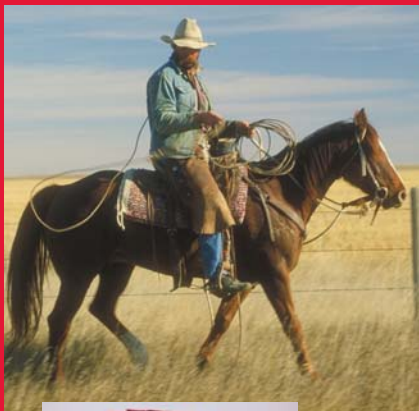
1. What does a hen lay? (an egg)
2. What is a mother pig called. (a sow)
3. What does bread start as? (wheat)
4. What is a group of fish called? (a school)
5. What do cows make? (milk)
6. What is a baby fish called? (fingerling)
7. What animals would you find in a dairy? (cows)

Discussion: Compare how you grow with how a pig grows. Why do you think a group of baby fish is called a “school?”

Write your own paragraph about something related to agriculture.

Answer Box

milk
wheat
sow
eggs
school
cows
fingerling



Skill: Comprehension

**Related lessons online: [The Story of Milk](#), [Racing Roosters](#), [Fish in a Bottle](#),
[This Little Pig](#), [Little Red Hen](#)**