

# Everything But the Oink!



## Objectives

- 1.The student will learn how pigs are raised.
- 2.The student will learn some of the by-products from hogs.

## Grade Level

1-3

4-6

## TEKS:

R-	1.1B,D,E;1.11A,B;	R-	4.13C,E,F;4.21C,D
R-	2.1B,D,E;2.7B;2.8A,B;2.20C,D; 2.10B;2.12D,E	R-	5.9A,E5.13C,D,E
R-	3.1B,D,E;3.7B;3.8A;3.20C,D;3.1 2E	R-	6.9A,E;6.13C,D,E
S-	1.5A;1.6A,B;1.9A,B	S-	4.8A,5.9A
S-	2.5A;2.9A,B;3.9A	SS-4.9B;4.13A,B;4.14B;4.22C,F	
SS-1.9A,B		SS-5.9B;5.13B;5.25C	
SS-2.8A,C;2.10A,C;2.17C,D,E		SS-6.21A,C	
SS-3.6A,3.16C,D			

## TAKS:

### GRADE

### OBJECTIVES

Reading	3, 4, 5, 6	1, 4
Writing	4	1, 4, 5, 6
Science	5	1, 2
Math	1, 2, 3, 4, 5, 6	1, 2

## Assessment Summary:

- Objective 1: Complete grade-appropriate multiple choice quiz on hogs.
- Objective 2: Complete poster of by-products. (Activity 8)
- Writing:
1. Students will write letters to pork and hog breed organizations asking for information including pictures of hogs. Addresses are included in resource list.
  2. Students will write an informative essay about the many uses of swine, including meat and by-products or about the different breeds of swine in the United States.
- Project: Students will complete posters showing different breeds of swine and their characteristics. Posters should include a collage of magazine pictures of products we use that contain swine products and by-products.
- Equipment: Computer with Internet Access

# Everything But the Oink!

## Procedure

1. Introduce new vocabulary:

Grades 1-3		Grades 4-6	
Sow	Snout	By-Product	Purebred
Boar	Litter	Farrowing House	Crossbred
Piglet	Farrow	Gilt	Wean
		Barrow	Vaccinate

## Activities

2. Read information from "It's a Pig's Life" to younger students or cut story into sections and have selected students read parts pretending to be "pork experts." Have older students read information silently, then discuss.
3. Have students play a Concentration/Memory Game to be made using the vocabulary words and their definitions on the "Talk Like a Pork Producer" exercise.
4. Have students complete the vocabulary matching exercise "Talk Like a Pork Producer" appropriate for grade level.
5. Have younger students play a Concentration/Memory Game using the pictures of the eight major breeds of pigs featured in "What Kind of Pig Am I?" exercise.
6. Have older students complete the exercises "What Kind of Pig Am I?" and "Talk Like a Pork Producer" Crossword Puzzle.
7. Have students research the major breeds of swine raised in the United States and write a paper comparing and contrasting the different characteristics, along with advantages and disadvantages of each breed. Information can be obtained by writing the National Pork Producers Council, various breed associations or by conducting an Internet search.  
  
Alternate Activity:(Grades 1-3) Have students make posters using pictures cut from magazines or newspapers illustrating products and by-products we get from hogs.
8. (Grades 1-3) Have students make posters of different swine breeds using pictures cut from magazines or off the Internet.
9. (Grades 4-6) Have students complete "Pork Producer Math Challenge."
10. Tell younger students to pretend that a pork producer is making a poster listing all the breeds of swine and the producer needs the students to help him or her by putting the eight breeds in alphabetical order.

### Additional Activities:

1. Have students take turns closing their eyes and drawing a pig on the chalkboard.
2. Bring pigskins or pigs' feet for the students to taste.
3. Teach the students "pig Latin." Have someone say a sentence and let others interpret.
4. Have students create a pig from construction paper and use corkscrew pasta for the tail.
5. Have students write a story or legend about "How the Pig Got His Curly Tail."

### Extension

1. Learn how to read the notches that farmers put in pigs' ears for identification. For an explanation and tutorial on ear notching, go to the Kansas State University website at [www.oznet.ksu.edu/pr\\_eyas/swine\\_links.htm](http://www.oznet.ksu.edu/pr_eyas/swine_links.htm). Good Math activity!
2. Contact a high school agriculture science teacher or county extension agent and arrange to have a student who is raising a pig as a project visit your class. Or, if there is a hog farmer in your area have him visit your class with some of his animals.

### Resources

National Pork Producers Council  
P.O. Box 10383  
Des Moines, IA 50306

National Spotted Breed Registry Association  
P.O. Box 9758  
Peoria, IL 61612-0150

American Landrace Association  
P.O. Box 2417  
West Lafayette, IN 47996-2417

American Yorkshire Club  
P.O. Box 2417  
West Lafayette, IN 47996-2417

American Berkshire Association  
P.O. Box 2436  
West Lafayette, IN 47906

### Internet Links:

Oklahoma State University  
[www.ansi.okstate.edu/library/swine.html](http://www.ansi.okstate.edu/library/swine.html)  
Contains information on different breeds of swine.  
Choose *Breed Information* from the menu.

Chester White Swine Records  
P.O. Box 9758  
Peoria, IL 61612-9758

United Duroc Swine Registry  
P.O. Box 2417  
West Lafayette, IN 47996-2417

Kansas State University  
[www.oznet.ksu.edu/pr\\_eyas/swine\\_links.htm](http://www.oznet.ksu.edu/pr_eyas/swine_links.htm)  
Link to an ear notching tutorial. Great math activity!

Hampshire Swine Registry  
P.O. Box 2417  
West Lafayette, IN 47996-2417

National Pork Producers Council  
[www.nppc.org](http://www.nppc.org)  
[www.pork4kids.com](http://www.pork4kids.com)

Poland China Record Association  
P.O. Box 9758  
Peoria, IL 61612-9758

Pork4Kids activity links. Pork Puzzlers, Food Fun for Kids, Learning About Pork Activity Book and more.

## Background Information

### A Pig's Life

Pork chops, ham, and bacon are just a few of the products people enjoy that come from hogs. "They market everything but the squeal" is an old but true saying about the many things we get from hogs. Gloves, shoes, ingredients for medicines, and even medical substitutes for human heart valves are by-products of the hog industry.

Hogs are also known as pigs or swine. There are eight major purebred breeds of swine raised in the United States. They are Yorkshire, Chester White, Landrace, Duroc, Hampshire, Poland China, Berkshire and Spot. Each breed has characteristics that it is known for, including color, mothering ability, size, and more. Pork producers often breed two or more different breeds so they can get the desirable characteristics of each. This is called crossbreeding and the offspring are called crossbreeds.

From the time the piglets are born, or farrowed, to the time the hogs are ready for market, the farmer makes sure they have plenty of feed and water. The pork producer also makes sure the growing animals have a comfortable, safe place to stay and are vaccinated to keep them from getting sick.

#### Pig Pen

The pigs live in pens with metal fences and slatted floors. Pigs must have strong legs because they spend a lot of time standing on the floor of the pig pen. The floor is made of narrow strips spaced about one inch apart. The strips are made of wood, plastic, or concrete. These narrow strips are called slats.

Below the floor of some pig pens is a pit, called a lagoon. The lagoon catches and stores manure and other wastes from the floor of the pen. The manure is pumped from the lagoon into a tank wagon and then sprayed on the farmers' fields for fertilizer.

Each pen has a large container, or feeder, that holds feed for the pigs. It has several openings so that more than one pig can eat at a time. The farmer makes sure the feeder is never empty. The pigs can eat any time they are hungry. The pens also have a spout that supplies water to the pigs. When they are thirsty all they have to do is push a button with their snout or tongue and they can get a drink.



## Baby Pigs

One structure on the hog farm is the farrowing house. This is where the baby pigs, called piglets, are born. They stay here while they are young. The mother pig is called a sow, and the male pig is a boar. When the sow has her litter of babies, she will spend about four weeks in the farrowing house. The house has rows of metal stalls. This is where the sows nurse the baby pigs. Lights provide warmth for the babies.

The hog farmer needs a few tools for specialized jobs. Very soon after birth, the baby pigs are given antibiotics to prevent infections. This medicine is given by squirting liquid in the mouth of the baby pig. The farmer uses a special bottle with a long tube to give the antibiotic.

The hog farmer must snip off the long pig tail of the baby pigs. If the tail remains long, the other pigs will try to bite it. This would cause a wound and possible infection. The hog farmer uses dog toenail clippers to clip the tail of the baby pigs.

Pigs are born with eight sharp upper and lower incisor teeth. Very soon after birth these teeth are snipped off with metal clippers. This must be done to keep the pigs from biting their own mouth or other pigs. This also prevents the baby pigs from biting the mother when they nurse.

Male pigs, called boars, are neutered to make them gain weight faster and to keep them from being aggressive. A neutered male pig is called a barrow.

## The Pigs Grow

The baby pigs stay with the sow until they are 4-6 weeks old, then they are weaned and taken from their mother. The farmer then moves the pigs to another pen called a nursery, where they learn to eat solid food.

The pigs are fed mostly ground up grain, corn, or grain sorghum, mixed with protein supplements, vitamins, and minerals to keep them healthy and gaining weight.

Pigs are fed several kinds of feed formulas at different times in their growing period. They are fed until they are about 220-240 pounds, market weight. Then they are taken to market to be sold. The farmer may keep a few of the female pigs, called gilts, to have more baby pigs.

Adapted From People on the Farm: Corn and Hog Farming U.S. Dept. of Agriculture



Hogs and pigs are often called swine. Pork chops and bacon and other foods come from pigs. Hogs also give us many other products such as gloves, shoes, medicines, and even medical substitutes for human heart valves. These non-food products are called by-products. Hog farmers, also called pork producers, must raise pigs in a good home. That means special machines and structures made just for the pigs.

### The Pig Pen

The pigs live in pens with metal fences and special floors. Pigs must have strong legs because they stand much of the time. The floor is made of narrow strips about one inch apart. The strips are made of wood, plastic, or concrete. These narrow strips are called slats.



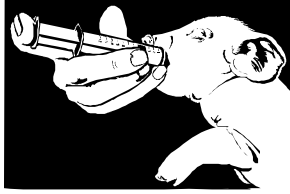
Some pig pens have a pit below the floor. This pit is called a lagoon. The lagoon catches the manure. It is drained to a vacuum tank wagon and stored. It is used as fertilizer in the field.

### Baby Pigs

One structure on the hog farm is the farrowing house. This is where the baby pigs, called piglets, are born. They stay here while they are young. The mother pig is called a sow, and the male pig is a boar. When the sow has her litter of babies, she will spend about four weeks in the farrowing house. The house has rows of metal stalls. This is where the sows nurse the baby pigs.



Lights provide warmth for the babies.



The hog farmer uses tools for special jobs. The baby pigs are given antibiotics so they do not get sick.

Baby pigs are born with long tails. The other pigs will try to bite the long tails. The hog farmer uses dog toenail clippers to clip the tails.

Pigs are born with eight sharp teeth. These teeth are snipped off with metal clippers. This is done to keep the pigs from biting each other and from biting the mother.

### The Pigs Grow

The baby pigs stay with the sow until they are 4-6 weeks old, then they are weaned, or taken from their mother. The farmer then moves the pigs to another pen called a nursery, where they learn to eat solid food.



The pigs grow and gain weight. The hog farmer keeps the groups in pens called finishing units. Here the pigs are fed several kinds of feed. Hogs are fed until they weigh about 240 pounds. This is called market weight. Then they are sold at the market. The farmer keeps a few of the female pigs to have more baby pigs.

Adapted from People on the Farm: Corn and Hog Farming, U.S. Department of Agriculture

Activity 4  
Grades 1-2

## Talk Like a Pork Producer!

### Vocabulary

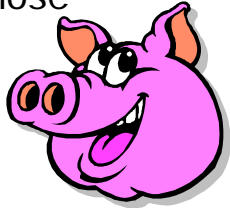
Draw a line from the definition and picture to the correct word.

1. A mother pig



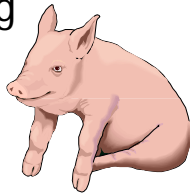
a. Piglet

2. A pig's nose



b. Sow

3. A baby pig



c. Litter

4. A male pig



d. Snout

5. A set of baby pigs who have the same mother



e. Boar



Activity 4  
Grades 3-6

## Talk Like a Pork Producer!

### Vocabulary

Match the definition with the correct word.

- |  |                    |
|--|--------------------|
| 1. _____ a mother pig  | a. Piglet          |
| 2. _____ a pig's nose  | b. Pork producer   |
| 3. _____ a baby pig  | c. Litter          |
| 4. _____ a father pig  | d. Gilt            |
| 5. _____ a set of baby pigs with the same mother                 | e. Boar            |
| 6. _____ someone who raises pigs                                 | f. By-product      |
| 7. _____ when pigs are taken from their mother to eat solid food | g. Swine           |
| 8. _____ a female pig that has not had babies                    | h. Sow             |
| 9. _____ a male pig that has been neutered                       | i. Weaning         |
| 10. _____ where sows give birth                                  | j. Barrow          |
| 11. _____ non-food products made from hogs                       | k. Snout           |
| 12. _____ another name for hogs and pigs                         | l. Farrowing house |



## Activity 6

# What Kind of Pig Am I?

There are eight major breeds of pigs in the United States. Most of the pigs raised in the U.S. are either purebred — one of the eight breeds, or crossbred — a mixture of two or more of the major breeds. Listed below are the eight major breeds and the characteristics of each. Decide which pig in the pictures has those characteristics and write the name of the breed under the correct picture. Read the descriptions carefully. Some of them can be tricky!

**Landrace —** White in color, long bodied, ears flop forward and down. Known for its mothering ability and large litters.

**Berkshire —** Medium sized, black with 6 white points (white points are the 4 feet, tail and nose), ears are erect. Known for fast and efficient growth, meatiness and good reproduction.

**Chester White —** White in color, ears droop forward. Known for its mothering ability.

**Duroc —** Red in color, shades vary from light to dark. The preferred shade is a medium cherry. Ears droop forward. Known for its good mothering ability, growth rate, and feed conversion. It is one of the most popular breeds in the U.S.

**Hampshire —** Black with white belt that encircles the forepart of the body. The forelegs are included in the white belt. To be eligible for registry, the white belt must include no more than two-thirds of the entire length of the body. Hamps have erect ears and are known for their foraging ability, muscle and carcass leanness.

**Poland China —** Black with 6 white points. The Poland China has forward drooping ears. They are one of the larger breeds of hogs. Known for low backfat and large loin eye. They are used in many crossbreeding programs.

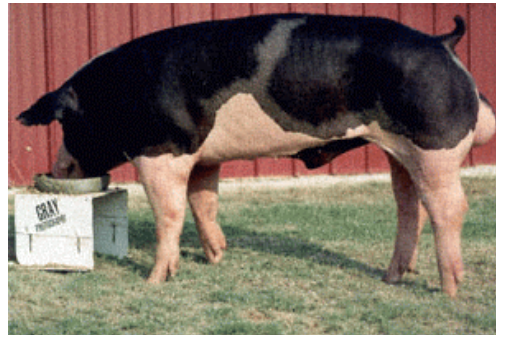
**Spotted Breed —** Black and white. At least 20 percent of the body must be either black or white to be eligible for registry. The Spot is similar to the Poland China and also has forward drooping ears. Known for its large frame and good muscling.

**Yorkshire —** White in color, sometimes with black pigmented spots called freckles. Yorks have erect ears and the face is slightly dished. The Yorkshire was one of the early bacon-type breeds of hogs. Known for large litters, high feed efficiency, rapid growth, good mothering ability and long carcasses.

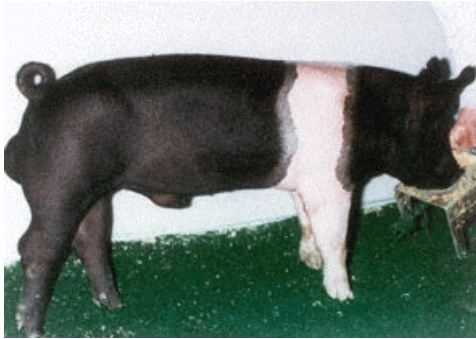
# What Kind of Pig Am I?



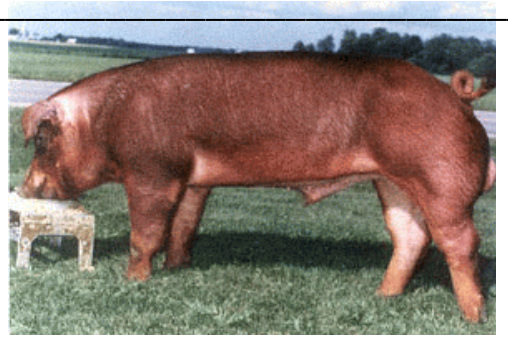
1. \_\_\_\_\_



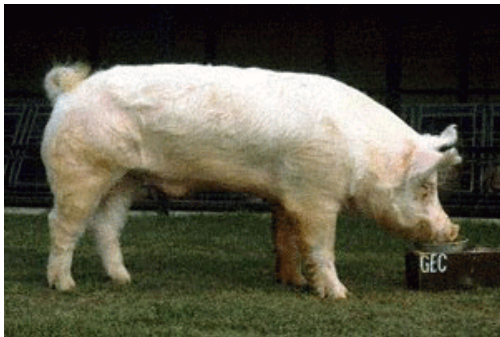
5. \_\_\_\_\_



2. \_\_\_\_\_



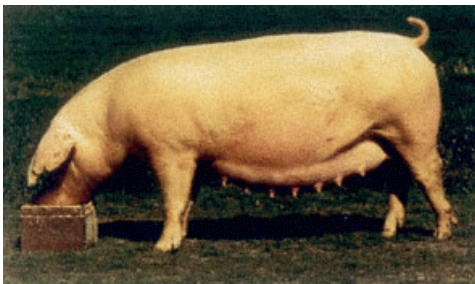
6. \_\_\_\_\_



3. \_\_\_\_\_



7. \_\_\_\_\_



4. \_\_\_\_\_

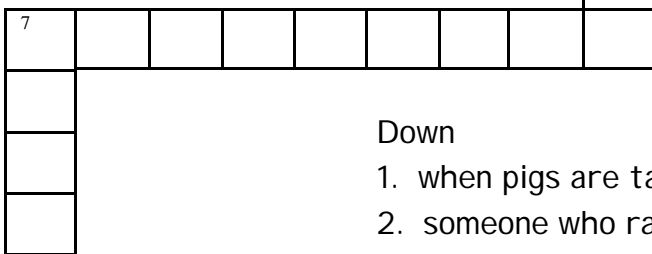
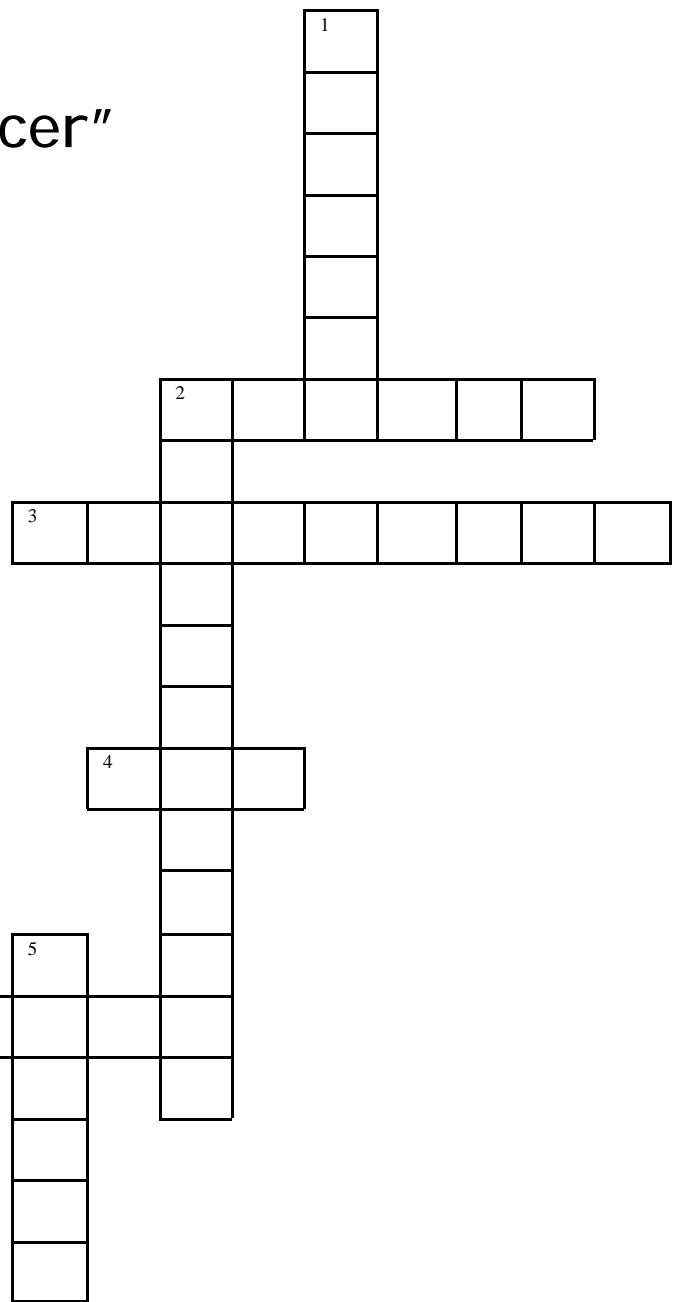


8. \_\_\_\_\_

Activity 6

# "Talk Like a Pork Producer"

## Crossword Puzzle



**Down**

- 1. when pigs are taken from their mother to eat solid food
- 2. someone who raises pigs
- 5. a set of baby pigs who have the same mother
- 6. a pig's nose
- 7. a male pig

**Across**

- 2. a baby pig
- 3. house where sows give birth
- 4. a female pig
- 6. another name for pigs and hogs
- 7. non-food products made from hogs

## Pork Producer's Math Challenge

Use the following table to answer the questions about swine production in Texas.  
(For latest figures, visit Texas Agriculture Statistics Service at [www.io.com/~tass](http://www.io.com/~tass))

# MEAT ANIMALS, MARKETINGS, AND CASH RECEIPTS: TEXAS AND UNITED STATES, 1997-99

Released: May 23, 2000

Species	Production <sup>1</sup>			Marketings <sup>2</sup>			Cash Receipts <sup>3</sup>		
	1997	1998	1999	1997	1998	1999	1997	1998	1999
	Million pounds			Million pounds			Million dollars		
TEXAS									
Cattle and calves	7,005	* 7,443	7,417	9,041*	9,436	9,463	* 5,885	* 5,775	6,124
Hogs and pigs	224	271	275	213	277	258	101	85	71
Sheep and lambs	79	72	63	80	95	86	61	62	56

<sup>1</sup> Adjustments made for changes in inventory and for inshipments. <sup>2</sup> Excludes custom slaughter for use on farms where produced and interfarm sales within the state. <sup>3</sup> Receipts from marketings and sales of farm slaughter. \* Revised.

- How many pounds of hogs and pigs were marketed in each of the years?  
1997 \_\_\_\_\_ 1998 \_\_\_\_\_ 1999 \_\_\_\_\_
- What were the Cash Receipts (money paid to farmers for their hogs) for each of the years? 1997 \_\_\_\_\_ 1998 \_\_\_\_\_ 1999 \_\_\_\_\_
- What was the average price per pound received by farmers for the hogs they marketed (sold) in each of the years?  
1997 \_\_\_\_\_ 1998 \_\_\_\_\_ 1999 \_\_\_\_\_ (hint: cash receipts divided by marketings)
- If a farmer sold a hog that weighed 240 pounds in each of the 3 years, how much money would he have received in each year? ( hint: multiply price per pound from question 3 times 240 pounds)  
1997 \_\_\_\_\_ 1998 \_\_\_\_\_ 1999 \_\_\_\_\_
- If the farmer paid \$1.00 per pound for 20 pound feeder pigs, how much did each pig cost?
- If the farmer's cost of production ( what it cost the farmer for the hog to gain 1 pound) was 35 cents per pound, how much did it cost to grow the pig from 20 pounds to market weight of 240 pounds?
- What was the farmer's profit (or loss) for each of the years ?  
1997 \_\_\_\_\_ 1998 \_\_\_\_\_ 1999 \_\_\_\_\_









