Swine

*Lesson Plan for Grade 2, Science*

*Prepared by NAITC*

*Modified by Mississippi State University, School of Human Science*

*for Mississippi Farm Bureau Federation - AITC*

# OVERVIEW & PURPOSE

Students will learn basic information about pigs and the products they provide through reading the book, *Pigs*, by Gail Gibbons, completing a worksheet, and participating in a class activity.

# EDUCATIONAL STANDARDS

**Mississippi College-and-Career Readiness Standards:**

L.2.3A Students will demonstrate an understanding of the interdependence of living things and the environment in which they live.

ELA-SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and text with peers and adults in small and larger groups.

**NALOs:**

T2.K-2 a Explain how farmers/ranchers work with the lifecycle of plants and animals to harvest a crop.

# OBJECTIVES

* Students will observe how pigs are produced for bacon, ham, etc
* Students will analyze the life stages of pigs from farm to table

# MATERIALS NEEDED

Activity 1:

* [*Pigs- True or False* handout (1 copy)](https://drive.google.com/file/d/1ttcEeIZJ0egnxY_IsfkLzodMd5ij2Srv/view?usp=drive_link)
* *Pigs*, by Gail Gibbons (1)

Activity 2:

* [*This Little Pig* worksheet (1 per student)](https://drive.google.com/file/d/1GWEOOSSgK8SxirHLOpJFMyuX7AEsJy7g/view?usp=drive_link)

Activity 3:

* [*Pork Products Cards* (1 copy per class)](https://drive.google.com/file/d/1wQDnqNNGShNFg4OXj4wMMEHcJmoBtu7d/view?usp=drive_link)

### Essential Files (maps, charts, pictures, or documents)

* [A field trip to Ohio pig farms (for optional enriching activity)](https://www.youtube.com/watch?v=rAw7Fs_IAW4)
* [Pork Product Cards](https://drive.google.com/file/d/1wQDnqNNGShNFg4OXj4wMMEHcJmoBtu7d/view?usp=drive_link)
* ["This Little Pig" worksheet](https://drive.google.com/file/d/1GWEOOSSgK8SxirHLOpJFMyuX7AEsJy7g/view?usp=drive_link)
* [True or False Statements](https://drive.google.com/file/d/1ttcEeIZJ0egnxY_IsfkLzodMd5ij2Srv/view?usp=drive_link)

# Lesson Set Up:

1. Print the attached document, *Pigs-True or False.* Cut the paper into strips, leaving 1 statement per strip. You will have 13 statements.
2. Draw a line down the center of your board. Write, *True* on one side of the line and *False* on the other.
3. Obtain the book Pigs by Gail Gibbons.
4. Print the This Little Pig Worksheet (1 per student)
5. To prepare for activity 3, print one copy of the *Pork Product Cards* and cut them in half. You will have 12 cards representing products and by-products that pigs provide for humans. Fold the cards in half and "hide" them in locations throughout your classroom.
6. Have Field Trip to Ohio Pig Farms video clip pulled up for the class to watch.

# VOCABULARY

**boar:** adult, male pig

**piglet:** baby pig

**sow:** adult, female pig

**swine:** a pig

# Ag Facts:

In Mississippi in 2019:

# 190,000 hogs and pigs (12/23/19 inventory)

# 1,021,000 piglets born in 2019

# 437 farms with hogs $96 million value of production in 2019

# Background information for teachers:

In the United States pigs are most commonly raised for their meat. Meat from a pig is called *pork*. Some pork, such as bacon and ham is processed by smoking the meat to add flavor. Sausage is pork meat that has been ground up and seasoned. Pork chops or roasts are considered fresh meat because they are not smoked or seasoned. Pork is a good source of protein and vitamins.

Pigs are part of the **swine** family. Male swine are called **boars**. Female swine are called **sows**. Baby pigs are called **piglets** or *pigs*. Once a pig reaches market weight (about 240 pounds) they are called *hogs*. It takes about 6 months for a baby pig to grow to market size.

A sow gives birth to a litter of pigs about twice per year. A litter usually has six to 12 baby pigs. During the first 3-5 weeks baby pigs are nourished by their mother's milk. Eventually they are weaned and eat corn, wheat and other grains.

There are many breeds of pigs around the world. In the United States common breeds include Duroc, Hampshire, Yorkshire, and Spots. The most obvious characteristics that distinguish breeds of pigs are their color and if their ears stand erect or if their ears are droopy. For example, the Yorkshire pig is white and it's ears stand erect. The *Duroc* pig is solid red (brown) in color and has large, droopy ears. The *Hampshire* is black with a white "belt" around it's shoulders. It has ears that stand erect. *Spots* is white with black spots and has large, droopy ears. 

# LEARNING PROCEDURES

Interest Approach:

1. Write the word “pig” on the board. Ask students what they think of when you say the word “pig.” Record their words on the board.
2. To encourage class participation and to better gauge prior understanding, ask further questions. Examples include:
   * "What color(s) can pigs be?"
   * "Why do we raise pigs?"
   * "Where do pigs usually live?"
   * "What do pigs eat?"

### Procedures

Activity 1: Pigs

1. Draw a line down the center of your board. Write, *True* on one side of the line and *False* on the other. Clarify the definitions of these two words and let the students know that they will be learning about pigs. They will be identifying statements as either true or false.
2. Pass the strips of paper containing the True/False statements out to individual students or teams of students (depending on class size). Instruct the student(s) to read their statement and then listen carefully as you read them a book. As you read, they will learn if their statement is true or false. Instruct the students to raise their hands when they know the answer to their statement. Once the statement has been identified as either true or false, place a strip of paper on the appropriate side of the board with tape or a magnet.
3. Read the book, *Pigs* by Gail Gibbons. There will be 1 true or false statement for each 2 pages of the book.
   * Pigs on the farm originally came from wild boars. *(True)*
   * Pigs have 5 toes, just like humans. *(False. Pigs have 4 toes.)*
   * A baby pig is called a piglet. *(True)*
   * Pigs only come in one size and color. *(False. There are many sizes and colors [breeds] of pigs)*
   * Pigs are very smart. They can be trained to do tricks just like a dog. *(True)*
   * Pigs wallow in water or mud to stay cool. *(True)*
   * Pigs have very good eyesight. *(False. Pigs have poor eyesight, but a very keen sense of smell.)*
   * Pigs eat corn, grains, and soybean meal. *(True)*
   * All pigs are kept inside barns. *(False. Some pigs are kept inside large barns with heating and air conditioning. Other pigs are kept housed outdoors with shelter from the heat or cold.)*
   * A mother pig has between 3 and 5 piglets in every litter. *(False. There are typically six to twelve baby pigs in a litter.)*
   * Pigs grow very quickly. They will weigh over 200 pounds when they are 6 months old. *(True)*
   * Most pigs are raised for their meat. *(True)*
   * If you visit a fair, you will not see pigs. *(False. Most fairs have pigs along with many other farm animals.)*

Activity 2: This Little Pig

1. Review basic pig facts that your students have learned thus far. List vocabulary words on the board. Clarify the definitions of words your students are still unfamiliar with.
2. Hand out *This Little Pig* worksheet. Complete side A first. Instruct students to write the swine-related words under the appropriate pictures.
3. Complete side B second. Read the sentences to students. Instruct them to underline the vocabulary words in the sentences. Students will complete the worksheet by drawing pictures to illustrate the vocabulary words.

Activity 3: To Be a Pig Farmer

To prepare for this activity, print one copy of the *Pork Product Cards* and cut them in half. You will have 12 cards representing products and by-products that pigs provide for humans. Fold the cards in half and "hide" them in locations throughout your classroom. If possible, consider hiding the 5 food cards (bacon, sausage, ham, Canadian bacon, and pork chops) in the lunchroom to help students associate that pigs provide food for our diets. Then, take a walking field trip to the lunchroom for step 6 of this activity.

1. Ask your students to name some of the jobs that farmers do each day. Help students recognize that farmers grow and raise plants and animals that provide food for us to eat and clothing to wear. There are many kinds of farmers. Ask your students, *What would it be like to be a pig farmer?* A pig farmer is responsible for many things. They must be very knowledgeable of pigs and be capable of feeding and caring for them properly to keep them healthy and happy.
2. Ask students what they need for their bodies to be healthy and well cared for. Students should recognize their need for food, clothing, and shelter. If necessary, ask more guiding questions to lead them to these answers. Point out that these necessities are provided by their caregivers, in most cases this will be their parents. Farmers are the caregivers of animals. They are responsible to provide for the needs of the animals they raise.
3. Show the video clip, [The Amazing Pig.](https://www.youtube.com/watch?v=KO9853g6mag&feature=youtu.be&t) Prepare the students for the video clip by letting them know that they will be seeing a large pig farm with many farmers at work. Stop the video along the way and point out what pig farmers do to take good care of their pigs. A few examples include:
   * Keeping pigs cool with fans and misters when it is hot.
   * Keeping pigs warm in the winter when it is cold.
   * Feeding pigs.
   * Monitoring the pigs to be sure they are healthy (veterinarians also help with this).
   * Helping with new baby pigs.
   * Moving pigs from place to place as they grow.
   * Etc.
     + Note: The first 44 seconds of the video clip addresses the statistics of pig farms in the state of Utah. However, the remaining portion of the video accurately reflects what happens on large hog farms around the country and is well geared for an elementary level audience.
4. Once students recognize the tasks completed by farmers each day to care for pigs, ask them, *What do pigs provide for humans?*
5. Explain that pigs provide many things for humans. Next, conduct a scavenger hunt with your students to "find" the *Pork Product Cards* that are hidden throughout the classroom (and lunchroom if applicable). Choose 1 student at a time to find a card, then discuss the card and place it on the board.
   * **Bacon:** Thin slices of pork that has been cured to add flavor.
   * **Sausage:** Ground up pork meat with added spices.
   * **Ham:** Cured pork that is popular for Christmas, Easter or other family gatherings. It is also a popular sandwich meat.
   * **Canadian Bacon:** Cured pork meat. Your students may recognize it as part of a Hawaiian style pizza.
   * **Pork Chops:** A fresh (not cured) cut of pork popular for grilling.
   * **Cosmetics, Gelatin, Crayons, and Chalk:** These products from pigs are considered *byproducts* or secondary products. After the meat is harvested from a pig, the non-meat portions of the pig are used to make products such as these. Little to none of the pig is wasted or thrown away.
   * **Insulin:** The first insulin produced for humans with diabetes came from pigs (and cows). Pork insulin is no longer used for humans in the United States, but it can be used to make insulin for pets with diabetes.
   * **Heart Valves:** Pigs are very valuable to medical science. A pig's circulatory system is very similar to a human circulatory system. Pigs help in medical research to learn more about treatments for heart diseases in humans. A pig's heart valve can actually be transplanted into a human whose heart valve has failed. Pig heart valves have saved many lives.

**Concept Elaboration and Evaluation**

After conducting these activities, use the following questions to review and summarize the key concepts:

* What color(s) can pigs be? *(White, black, brown, red, or multi colored)*
* Why do we raise pigs? *(Primarily for meat such as ham, bacon, pork chops, and sausage)*
* Where do pigs usually live? *(inside barns, but they can also be raised outdoors)*
* What do pigs eat? *(Corn and soybeans)*

# Additional Learning Procedures

To help students review and elaborate more about swine try using the [“I used to think… Now I think..”](https://drive.google.com/file/d/1wuXgdgDiqKWE_reXwrle29zRSOiR51Rh/view?usp=drive_link) method to allow students to think deeper and make new connections.

Additional texts to include:

[Pigs & Pork an A to Z Book](https://www.agfoundation.org/recommended-pubs/pigs-pork-an-a-z-book)

[First Look at Farm Animals](https://www.agfoundation.org/recommended-pubs/first-look-at-farm-animals)

[Pigs on the Farm](https://www.agfoundation.org/recommended-pubs/pigs-on-the-farm)

Source: <https://www.agclassroom.org/teacher/matrix/>

*For more information and additional lessons visit*

*https://msfb.org/ag-in-the-classroom/lesson-plans/.*