Swine

*Lesson Plan for Grade 6 , English Language Arts*

*Prepared by National FFA Pork Checkoff*

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

*for Mississippi Farm Bureau Federation - AITC*

# OVERVIEW & PURPOSE

In this lesson, students will explore the different types of swine production systems and the management practices for each stage of a pig’s life.

# EDUCATION STANDARDS

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

RI.6.7Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

SL.6.2 Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

SL.6.4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

**NALOs**

T2.6-8 e Identify strategies for housing for animal welfare and the safety of animal products (e.g., meat, milk, eggs)

OBJECTIVES

* Students will be able to describe different types of swine production systems.
* Students will be able to describe accepted management practices for the stages in the life cycle of swine.

# MATERIALS NEEDED

Interest Approach

* Paper, 1 per student
* Pencil, 1 per student

Activity 1:

* Pork Production Today, 1 per student
* Comparison of Swine Production Systems, 1 per student
* Something to keep time

Activity 2:

* Timeline of a Pig’s Life, 1 per student
* Stages of a Pig’s Life, 1 per student

# Lesson Set Up:

Interest Approach

* Have a piece of paper and pencil ready for each student.

Activity 1:

* Have a copy of the Pork Production Today and Comparison of Swine Production Systems handouts for each student.
* Place the handouts in two stacks at the front of the classroom.

Activity 2:

* Have a copy of the Timeline of a Pig’s Life and Stages of a Pig’s Life handouts for each student.

# Vocabulary

**Indoor**: Environmentally controlled buildings that house swine at similar stages of development.

**Outdoor**: Systems where swine have access to the outdoors and shelter buildings are not environmentally controlled.

**Farrow**: Pigs from birth until approximately three weeks old

**Nursery**:Pigs from approximately three until nine weeks old

**Grower-Finish**: Pigs from approximately nine weeks old until they are approximately 265-275 pounds

# Ag Facts:

* Mississippi ranks #23 in the United States in pork production, producing 1.02 million hogs and pigs annually.
* In 2020, Mississippi had 437 farms with hogs.
* The value of pork produced in 2020 was $38 million.
* Five types of pork production exist in Mississippi:
  + Feeder pigs
  + Contract production
  + Farrow-to-finish
  + Feeding feeder pigs to market
  + Seed stock production
* Pork is high in nutrients. It is a source of complete protein, containing all the essential amino acids.

# Background Information for Teacher:

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 meats 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.

# LEARNING PROCEDURES

Interest Approach:

1. Explain to students that they need to be ready to think critically and examine all of the possibilities. To do this, we will
2. Explain that in order for them to be able to do this, they need to get a piece of paper and a writing utensil.
3. Tell students to prepare a “T” chart on their sheet of paper. Explain that they should draw a large “T” and label the left side “pros” and the right side “cons.”
4. Explain the following situation to students.
   1. “We have been informed that the global environment is off balance. All living creatures need to decide if they will live indoors or outdoors for the rest of the year. Make your decision whether you will live outside or inside at the top of your paper; use the “T” chart to list the pros and cons of your decision. You will have two minutes to do this.”
5. At the conclusion of two minutes, ask students the following questions (Be sure to give students time to answer/discuss each question):
   1. How many chose to live indoors?
   2. How many chose to live outdoors?
   3. Was this an easy decision to make?
   4. What were some of your determining factors?
6. Explain to students that “we just walked through one method we can use to make a decision. For more difficult decisions, it is always good to write down on paper the pros and cons of the decision. Recording our thoughts allows us to make an informed decision and be prepared for what could happen next.”
7. Finally, provide students with some context regarding the lesson: “No, there is no global off balance, but this is a very important decision that livestock producers have to make
8. when they have a production operation. Just like there were advantages and disadvantages for us to live indoors and outdoors, there are similar ones to outdoor and indoor swine production facilities.”

Activity 1:

1. Explain to students that during the next few minutes they will need to be investigative.
2. Students should read the “Pork Production Today” sheet and collect information in order to make another very important decision.
3. Both the “Pork Production Today” and the “Comparison of Swine Production Systems” should be placed in two piles at the front of the classroom. When you say “GO”, students should go to the front of the classroom and collect one paper from each pile.
4. Once students return to their seats, they will have ten minutes to read the story and collect their data on the paper provided.
5. Provide students 10 minutes to work, gauge the time and adjust as needed for your students. Provide time warnings when you are ready to move on.
6. Once the time limit expires, be sure to note that all phases of a pig’s life are spent
7. in one of these two production systems, or a combination of the two.
8. Then, ask students the following questions:
9. “If you were a pig, which system would you prefer to live in?” “Why?”
10. Anticipated responses: freedom of the outdoors vs. controlled comfortable environment indoors
11. Be sure to tell students to keep these types of systems in mind as we discuss what happens in each of the three phases of a pig’s life.

Activity 2:

1. Tell students to think about all of the milestones they have experienced in their lives.
2. Ask students what some of those milestones are.
3. Explain to students that livestock experience similar milestones in their lives and that today we will explore some of those milestones and record them on this timeline.
4. Explain to students that as we review the stages of a pig’s life, you will chart their growth on the timeline provided titled “Timeline of a Pig’s Life.”
5. Hand out the “Stages of a Pig’s Life” handout to students.
6. Explain each stage of a pig’s life, beginning with the farrow stage.
   1. **Farrow** is a pig from birth until approximately three weeks old or 10-15 pounds.
   2. Sows are placed in individual farrowing pens or stalls.
      1. This protects the piglets, usually 9-10 pigs per litter, from getting crushed by the sow.
      2. This also protects the piglets and workers from the sow’s protective nature
   3. The highest loss of piglets happens from birth until they are 3-4 days old. Several protective measures are taken to protect the young pigs.
      1. The navel is disinfected.
      2. Needle teeth are clipped so they do not injure other pigs or the sow.
      3. They receive a supplement of iron.
      4. Their tails are docked to prevent damage from getting stepped on.
      5. Young males are castrated so they do not injure other pigs or workers.
7. **Nursery** is a pig that is approximately three weeks old (10-15 pounds) to nine weeks old (40-60 pounds).
   1. Pigs are housed on slatted floors that let waste fall through keeping the pigs clean.
   2. Pigs are fed as many as five different diets changed to meet the needs of the growing pig.
8. **Grower-Finish** is a pig that is approximately nine weeks old (40-60 pounds) until they are approximately 265-275 pounds.
   1. Pigs are focused on growth and development.
   2. Although types of housing vary, they are kept as clean and comfortable as possible to ensure high rates of gain.
   3. Diets are adjusted to meet the specific needs of the pigs at each stage of growth.
9. **Market** is a pig that weighs approximately 265 pounds.
   1. Pigs are marketed to a terminal market or live market.
10. Finally, wrap up this activity:
    1. “As we discussed earlier, a pig has milestones in their lives just like we do. They have different diets and mature through their life. Regardless if they are housed in an indoor or outdoor facility, the main role of the producer is to make the pigs as comfortable as they can so they produce a high-quality meat product for the consumers.”

**Concept Elaboration and Evaluation**

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

* Controlled-environment buildings make handling hogs easier, provide for more direct observation of animals, allow greater control of the production process, protect both animals and workers from the heat, cold, rain and snow, and usually result in faster growth to market weight and better feed efficiency.
* Pasture or outdoor production systems involve more acres of land and more labor per unit of output. They require generally lower capital investment, especially when marginal land can be used, but usually give lower productivity in terms of output per unit of land or labor or feed.
* No matter what facility you choose, there is still a common goal: To provide the proper environment to maximize the welfare and productivity of both animal and worker.
* Farrow, nursery, grower-finish, and market are all stages a pig will go through throughout their life.

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/188mvzNPV6rW617KuzkxJ9pM47zjrKmav/view?usp=drive_link) method to allow students to think deeper and make new connections.

Additional Things to Include:

[Farm Pop-Ups](https://agclassroom.org/matrix/resource/132/)

[Pigs](https://agclassroom.org/matrix/resource/205/)

[About Farm Animals Mini Kit](https://agclassroom.org/matrix/resource/122/)



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

*For more information and additional lessons visit*

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