



Pigs on the Farm (Grades K-2)

Grade Level

K - 2

Purpose

Students explore the basic needs of animals and create a model of a modern pig barn that will help farmers meet the needs of the animals. **Grades K-2**

Estimated Time

45 minutes

Materials Needed

Engage:

- [A Field Trip to Ohio Pig Farms](https://www.youtube.com/watch?v=rAw7Fs_IAW4) (https://www.youtube.com/watch?v=rAw7Fs_IAW4) video

Activity

- Business-size envelopes, 4 per group
- Paper towel, 1 per group
- Toilet paper rolls, 2 per group
- Drinking straws, 2 per group (cut into 8 equal pieces)
- 8.5" x 11" white paper, 1 per group (cut in half)
- Scissors
- Scotch tape
- Markers (optional)
- Extra paper for making fencing, pipes, feed troughs, etc. (optional)

Vocabulary

environment: the surroundings or conditions in which a person, animal, or plant lives or operates

farrowing house: a facility where a litter of pigs is born

finishing barn: a barn where pigs live when they are eight weeks old until they are ready for market at six months old

litter: the group of young animals born at one time

nursery barn: a barn where piglets live after they are weaned at three weeks old until they are moved to the finishing barn at eight weeks old

omnivore: an animal or person that eats food of both plant and animal origin

piglet: a young pig

pork: meat that comes from pigs

predator: an animal that preys on others

sow: a female adult pig

wean: to help a baby to stop feeding on its mother's milk and to eat other foods

Did You Know?

- Pigs can run a 7-minute mile.³
- Pigs were the first animals to be domesticated.⁴
- Pigs have below average eyesight, but powerful noses.⁴
- A pig's squeal can reach 130 decibels. A jet engine is 120 decibels.⁴

Background Agricultural Connections

Like humans and other animals, pigs have four basic needs—air, water, food, and shelter. Pigs also need social interaction with other pigs, treatment for injuries and diseases, and space to stand, stretch, and lie down.¹ Pigs raised on farms live in **environments** that are designed to help farmers meet these needs. Barns protect pigs from weather, disease, and **predators**. Farmers provide pigs with fresh air, clean water, nutritious food, and shelter.

Pigs are **omnivores**. They eat both plants and animals. Pig feed typically consists of corn and soybean meal mixed with vitamins and minerals. It is a common misconception that farmers feed pigs table scraps or slop. Feeding pigs garbage, raw

meat, meat scraps, or restaurant waste puts them at risk and is illegal in the United States.¹

Computer technology is used to help control the temperature inside the farm buildings where pigs live. Pigs are susceptible to heat and cold stress. Because pigs are unable to sweat to regulate their temperature, farmers use fans and misters to help them stay cool in the summer. Heaters are used to help pigs stay warm in the winter. Pigs also have sensitive skin that is prone to sunburn. Providing shade for pigs is an important part of keeping them healthy and safe.

Newborn pigs are called **piglets**. Piglets are born in a **litter** in a **farrowing house**. They weigh 2-3 pounds when they are born and start walking almost as soon as they are born. Mother pigs are called **sows**. For the first three weeks, piglets nurse from a sow about once every hour. At three weeks old, when the piglets weigh about 15-20 pounds, they are **weaned** and moved to a **nursery barn**. In the nursery barn, piglets are given solid feed and drink water from waterers. The pigs always have access to food and water, but do not overeat because they will only eat until they feel full. At eight weeks old, when the pigs are about 40-60 pounds, they are moved to a **finishing barn**. Pigs go to market when they are six months old and weigh 280 pounds.

Pork is meat that comes from pigs. Bacon, pork chops, ham, and sausage are examples of pork products. Pork fits in the protein section of MyPlate. It is an excellent source of protein, thiamine, niacin, riboflavin, vitamin B₆, and phosphorous and a good source of zinc and potassium.²

In this lesson, the students will create a pig barn. View the [Build Your Own Pig Barn](https://www.youtube.com/watch?v=O_8lweAq05o) (https://www.youtube.com/watch?v=O_8lweAq05o) tutorial for more information about the activity.

Engage

1. Ask the students, "What is pork?" (*Pork is meat that comes from pigs. Bacon, pork chops, ham, and sausage are examples of pork products.*)
2. View the video [A Field Trip to Ohio Pig Farms](https://www.youtube.com/watch?v=rAw7Fs_IAW4) (https://www.youtube.com/watch?v=rAw7Fs_IAW4).
3. Ask the students, "Why are barns important for pigs?" (*Barns protect pigs from weather, disease, and predators.*)
4. Explain to the students that they will be learning more about what pigs need to be healthy and how a pig's environment can protect them.

Explore and Explain

1. Ask the students, "What do you need to survive?" (*food, water, air, and shelter*) Ask the students if they think pigs have the same or different needs. Discuss their responses and guide them to the understanding that pigs have the same basic needs as humans. Just like humans, pigs need space, social interaction, and treatment for injuries and disease.

2. Ask the students to imagine that they are farmers who raise pigs. Open up a classroom discussion about how the students would take care of their pigs. Use the following questions to guide the discussion:
 - How will you keep the animals warm on cold days?
 - How will you keep them cool on hot days?
 - What and how will you feed the animals?
 - What will you do to keep your pigs healthy?
 - How will you keep your pigs safe from predators?
 - Who will take care of your pigs every day?
 - How will the pigs affect the land or air in which they live (soil, odor)?
 - Can the environment hurt the pigs (weather)?
 - What other needs do the pigs have, and how will you take care of these needs?
3. Explain to the students that they are going to design an environment, a pig barn, that will help farmers meet the needs of pigs. Organize students into small groups or allow students to work individually. Provide each student or group with four business-size envelopes, a paper towel, two toilet paper rolls, two straws cut into eight equal pieces, a piece of white paper cut in half, scissors, and scotch tape.
4. Use the following instructions to model for the students how to create the barn:
 - a. **Barn:** Cut an oval hole in one envelope, making a large side window for the barn. This window provides the proper ventilation for the pigs.
 - b. Cut the paper towel in half and tape it onto the top of the window for the curtain.
 - c. Cut another envelope in half for the ends of the barn.
 - d. Tape the ends of the barn to the "sides of the barn" envelopes, one of which has the hole for the window and paper towel curtain, so that you have four sides, or a rectangle.
 - e. Use the final envelope to create a roof by creasing it in half lengthwise and attaching it with tape to the top of the rectangle.
 - f. **Food Storage:** Tape four straws, or legs, to each toilet paper roll so that the structures will stand on the legs.
 - g. Use a half piece of paper, and make a cone shape by twisting and taping the ends. Tape the cone shape on the end of the toilet paper roll without the straw legs.
 - h. Use the other half piece of paper to make another smaller cone shape and tape it between the straw legs on the other end of the toilet paper roll.
5. Remind the students that their barn designs should help farmers meet the needs of pigs. Allow time for the students to create fencing, pipes to carry the feed, feeders, water troughs, fans, misters, heaters, etc. Students should add their own innovations to the structure.
6. Ask the students to share their barns with the rest of the class and explain how their designs help to meet the basic needs of the pigs:
 - Food
 - Water
 - Air
 - Shelter

Elaborate

- Learn more about how farmers care for pigs by taking a [Virtual Field Trip to an Ohio Pig Farm](https://www.youtube.com/watch?v=5PdNWMPTeLY) (<https://www.youtube.com/watch?v=5PdNWMPTeLY>).
- Take students on a [360° Virtual Tour](https://www.agclassroom.org/360/) (<https://www.agclassroom.org/360/>) of a [Sow Farm](https://www.youtube.com/watch?v=1tVeAwdoCzM&list=PLYA8jFF7RfxtPL9V44fCg6EI0vBdW3BGZ&index=3&t=0s) (<https://www.youtube.com/watch?v=1tVeAwdoCzM&list=PLYA8jFF7RfxtPL9V44fCg6EI0vBdW3BGZ&index=3&t=0s>) where piglets are born and then to a [Wean-to-Finish](https://www.youtube.com/watch?v=0Zns8dwcwwU&list=PLYA8jFF7RfxtPL9V44fCg6EI0vBdW3BGZ&index=2&t=0s) (<https://www.youtube.com/watch?v=0Zns8dwcwwU&list=PLYA8jFF7RfxtPL9V44fCg6EI0vBdW3BGZ&index=2&t=0s>) farm where they continue their growth and life cycle.

Evaluate

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

- Food, water, air, and shelter are the basic needs of pigs.
- Pigs also need space, social interaction, and treatment for injuries or disease.
- Modern pig barns protect pigs from weather, disease, and predators.
- Pork is a meat that comes from pigs. Bacon, pork chops, ham, and sausage are examples of pork products.

Sources

1. <http://articles.extension.org/pages/68913/transport-and-care-of-pigs>
2. <https://www.pork.org/cooking/pork-nutrition/vitamins-and-minerals/> (<https://www.pork.org/cooking/pork-nutrition/vitamins-and-minerals/>)
3. <https://www.kfb.org/page/file?path=Files%2Fpage-161%2Fpig-tales%2FPorkFunFacts.pdf>
4. <https://realpigfarming.com/15-trivia-winning-facts-about-pigs-6ab00f2d1049>

Recommended Companion Resources

- [About Farm Animals Mini Kit](https://agclassroom.org/matrix/resource/122/) (<https://agclassroom.org/matrix/resource/122/>)
- [About...Books](https://agclassroom.org/matrix/resource/123/) (<https://agclassroom.org/matrix/resource/123/>)
- [Barn at Night](https://agclassroom.org/matrix/resource/1149/) (<https://agclassroom.org/matrix/resource/1149/>)
- [Down on the Farm: Pigs](https://agclassroom.org/matrix/resource/260/) (<https://agclassroom.org/matrix/resource/260/>)
- [FUNdamentals of Farming Game](https://agclassroom.org/matrix/resource/874/) (<https://agclassroom.org/matrix/resource/874/>)
- [Farm Pop-Ups](https://agclassroom.org/matrix/resource/132/) (<https://agclassroom.org/matrix/resource/132/>)
- [Livestock Cards](https://agclassroom.org/matrix/resource/791/) (<https://agclassroom.org/matrix/resource/791/>)
- [My Family's Farm Book Series](https://agclassroom.org/matrix/resource/1006/) (<https://agclassroom.org/matrix/resource/1006/>)
- [Pigs](https://agclassroom.org/matrix/resource/205/) (<https://agclassroom.org/matrix/resource/205/>)
- [Pork Ag Mag](https://agclassroom.org/matrix/resource/1133/) (<https://agclassroom.org/matrix/resource/1133/>)
- [The Hundred-Year Barn](https://agclassroom.org/matrix/resource/1158/) (<https://agclassroom.org/matrix/resource/1158/>)
- [The Perfect Barn](https://agclassroom.org/matrix/resource/1000/) (<https://agclassroom.org/matrix/resource/1000/>)

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Ohio Pork Council

Organization

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