

Hogs on a Diet

Skills: Science, Math

Objective: Students will identify an assortment of feed grains and learn the importance of eating a variety of foods, both for themselves and for farm animals.

Background

Swine were among the first of all animals to be domesticated —around 6,000 years ago. A domesticated animal is one that is trained to live in a human environment and be of use to humans. The Spanish explorer Hernando DeSoto brought the first swine to the New World in 1539.

Female swine are called sows. Sows give birth to litters of pigs twice a year. Each litter usually has eight to 12 baby pigs. Giving birth to baby pigs is called farrowing. Baby pigs appear very greedy when they are competing for food from their mothers. For this reason the words “pig” and “hog” have come to be associated with greedy behavior. Despite their reputation, pigs will never overeat. Once a pig is full, it stops eating.

Pigs are weaned when they are two to four weeks old. They are called “nursery pigs” until they reach 50 pounds and “growing/finishing pigs” from then until they reach about 240 pounds. After that they are called hogs. Hogs are usually taken to market when they weigh 240-280 pounds.

In the past hogs were fed table scraps and had a reputation for eating just about anything. The meat from hogs fed that way was very high in fat. Today’s swine producers are more careful about what they feed their animals. Some of the food fed to swine are corn, wheat and soybean meal. Vitamins and minerals are added to increase growth and improve health. Today’s hogs weigh more, but because producers plan their diets carefully, they grow more efficiently and yield more lean meat than ever before. Bacon, pork sausage, pork chops and ham all come from hogs. In addition, swine are used in the production of non-food products like fertilizer, glass, china, floor wax, chalk, crayons, and heart valves.

Pork provides protein, B-vitamins and thiamin to our diets. Pork has three times as much thiamin as any other food. Thiamin changes carbohydrates into energy and promotes a healthy appetite.

Science

1. Before class time, place a few grains of each type of feed in the shoe box. Place the shoe box on a table in the front of the room so students can see it, but don’t let them move it or look inside.

P.A.S.S.

GRADE 4

Reading— 1

Math— 1.1; 5.1b

Science Process— 1; 2.1;
4.1

GRADE 5

Math— 1.1; 5.1a

Science Process— 1.2; 2.1;
4.1

GRADE 6

Science Process— 1,2; 4.1,2

Math— 5.1,2

Reading— 1

GRADE 7

Science Process— 1; 2;

4.1,2

Reading— 1

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Materials

shoebox

An assortment of animal feed grains available from feed stores (Ask for samples from broken bags.)—wheat, corn, soybeans, grain sorghum

Vocabulary

domesticated—adapted to living with human beings and to serving their purposes

efficient—capable of producing desired results especially without waste

farrowing—giving birth to pigs

greedy—having a keen appetite

litter—the young born to an animal at a single time

mineral—a solid chemical element or compound that occurs naturally in the form of crystals and results from processes not involving living or once-living matter

swine—any of a family of stout-bodied short-legged hoofed mammals with a thick bristly skin and a long snout; especially : a domestic animal developed from the European wild boar and raised for meat

sow—an adult female hog

vitamin—any of various substances that are necessary in very small amounts to the nutrition of most animals and some plants, that are important to the control of growth and development by activating and assisting in the function of enzymes, and that are present naturally in many foods or in some cases are produced within the body

wean—to get a child or young animal used to food other than its mother's milk

—Ask students what it means to “hog” something. Where did that saying come from? How do hogs eat? What do they eat?

—Read and discuss background.

—Students will guess what is in the box.

—Shake the box. Is there any sound? What does it sound like?

—Open the box, and allow students to feel what is inside without seeing it. What does it feel like?

—Show students the feed grains, and ask them to identify each one. Explain that hogs and other kinds of animals eat these kinds of grains and that, just like us, hogs need a variety of foods to help meet their nutritional needs.

Math

1. Students will sort the grains and place them in piles, then graph the quantities.

Language Arts

1. Students will make a list of common phrases associated with swine (living high on the hog, acting like a pig in a poke, being in hog heaven).

—Students will research the meaning of the phrases and their origins.

Extra Reading

Geisert, Arthur, *Oink*, Houghton Mifflin, 1995.

King-Smith, and Anita Jerame, *All Pigs Are Beautiful*, Candlewick, 1995.

“Pork 4 Kids,” National Pork Producers Council, www.pork4kids.com

Scieszka, Jon, and Lane Smith, *The True Story of the 3 Little Pigs*, Viking, 1999.

Tym, Kate, and John Blackman, *Pig Tales*, Element, 1999.