Agriculture surrounds us in California and it all starts with where water flows. Water conservation is environmentally responsible and important for the sustainability of pork production. Water contributes to every aspect of raising pork. It helps provide the optimal environment for swine to grow. Swine producers ensure their animals receive fresh drinking water, high quality feed, and good animal care. There is much more to the story, but the water is where it all begins on the journey from Farm to you!
From Farm to You: PORK

Introduction: Swine are some of the most versatile animals in the livestock industry with the ability to use all the animal for various by-products.

Objective: Students will know and identify examples of each.

California Standards: CC ELA: SL.5.1, SL.5.4, SL.6-12.1; NGSS: S-LS2-1, HS-LS2-7.

Materials: Examples of each by-product category AND/OR 8 pictures of different by-products (Hair, brain, skin, fatty acids and glycerin, blood, internal organs, meat scraps, and bones). Visit: learnaboutag.org/resources/fact/pork.pdf for a pork fact sheet.

Procedure:

1. Think, pair, share on the importance of utilizing all the animals’ carcass. Brainstorm with a partner the importance of creating by-products and list what products can be made from swine.

2. Define pork by-products. Share and discuss the eight categories of pork by-products with an example of each. Hair (meant for artist’s brushes and upholstery), brain (used to make medicine), skin (gelatin, footballs, luggage, clothes, and drumheads), fatty acids and glycerin (weed killers, crayons, make-up, fabric softener), blood (plywood adhesive and fabric printing/dyeing), internal organs (insulin and heart valves), meat scraps (pet food), and bones (glue, buttons, fertilizer, and water filters).

3. Provide samples of each by-product category. Have students touch, taste, smell, and guess which category each by-product belongs to. Have students write their observations down. Discuss observations as a class and reveal the correct answers.

Activity: Safety First

Introduction: Maintaining a safe environment for our animals being raised for food production is an important concept to analyze. In swine facilities, pigs have their snouts on the ground naturally searching for food, making the pigs more susceptible to picking up any germs that may have been brought in on the farmers shoes. To prevent the pigs from getting any germs, farmers follow safety protocol to protect their animals. This is what is referred to as biosecurity. It is an essential part of swine production to maintain overall health and protect the herd from any biological agents that could be brought in.

Objective: Students will develop and explain the importance of biosecurity system to a “Farrow-to-Finish” swine facility by creating their own facility to protect from biological agents.

California Standards: CC ELA: WHST.6-8.6, RST.6-8.9; NGSS: MS-LS2-2, MS-LS2-4, HS-LS2-7.

Supplies: Example pictures of an “Farrow-to-Finish” facility AND/OR a tour of a swine facility (e.g. farrowing, nursery, growing, and finishing stages). Internet source, paper, markers, scissors, tape, etc.

Directions:

1. Have students research what biosecurity is and why it is used in swine production. Have students research historical biological agents that helped develop an “Farrow-to-Finish” facility.

2. In pairs, have students creatively design their own swine production facility.

3. In pairs, have students creatively design a way to display their research using the materials provided.

Vocabulary Key

*Farrow—To give birth
*Gilt—Young female pig that has never had piglets.
*Herd—A group of pigs.
*Litter—Refers to the baby pigs born to a sow at one time.
*Piglet—A young pig up to weaning age.

For more information about pork, visit LearnAboutAg.org.

“Photos courtesy of National Pork Board”