

Grade Levels: Middle School & High School Introductory Level

National FCS Standards:

- Design a plan for accomplishing a selected action.
- Demonstrate safe food handling and prep techniques that prevent cross contamination from potentially hazardous foods, between raw and ready-to-eat foods, and between animal and fish sources and other food products.

Objectives: Students will

- correlate pork primal cuts to retail cuts.
- organize steps of recipe in meaningful sequence.
- use teamwork to plan and prepare recipe.
- demonstrate safe food preparation skills.

21st Century Skills:

- Communicate clearly
- Collaborate with others
- Manage goals and time

Resources:

- Pork Producers Are Inspired online video: <http://bcove.me/q9vc56hy>
- PowerPoint slides illustrating cuts of pork
- Pork Basics online: <http://www.porkbeinspired.com/resources/images/2045.pdf> This can also be ordered in hard copy from Wisconsin Pork Association. Call (608) 723-7551 to order!
- Ham & Cheese Muffin video:
<http://www.pork4kids.com/Video/619/VideoHamAndCheeseMuffins.aspx>
- Answer Key: Safety First
- Answer Key: Ham It Up
- Optional: scissors, glue, index cards for Safety First lesson segment
- Activities to Enhance Learning
 - Safety & Sanitation Connect Four – see separate file
 - Ham at a Glance
 - Pork Jumble game: <http://www.pork4kids.com/GamesAndActivities/624/GamesAndActivitiesAges9To11.aspx>
 - Take Your Recipe Home

Student Resources:

- See corresponding document with ready-to-duplicate activities and recipes

Day 1 Previous lessons regarding kitchen safety, sanitation, utensils, accurate measurement techniques and/or cooking terms will be helpful for students.

Introduction: (10 minutes) Introduce the pork industry using online video *Pork Producers Are Inspired* (length 4:03) at <http://bcove.me/q9vc56hy>. Discuss the questions.

- a. What did these farmers have in common?
- b. How were these farmers different from each other?
- c. What are misconceptions the general public may have about pork producers?

Pork Cuts: (10 minutes) What kind of pork do we eat here at school? With our families? At holiday celebrations? Use *Pork Basics* resource to introduce five parts of a pig. Students will use diagram of pig provided and label the five primal cuts of pork. The primal (or wholesale) cut specifies which part of the animal the meat comes from. Use PowerPoint slides provided plus examples from *Pork Basics* to differentiate between primal and retail cuts. Student will record 2 examples of retail cuts for each part of the pig. Share labeled diagram with partner.

Ham & Cheese Muffins: (15 minutes) Watch online video *Ham & Cheese Muffins* (length 2:15) at <http://www.pork4kids.com/Video/619/VideoHamAndCheeseMuffins.aspx>. Distribute copies of recipe. Each kitchen group gets *Ham It Up* activity and scissors. Students cut apart steps of recipe and work as a lab group to organize steps into a meaningful sequence. Each lab group checks their sequence by referring to recipe. Teacher shares accurate sequence with students – use answer key at end of document. Glue steps to *Time Matters* plan. Each step is labeled with student's name that is responsible for that task. Students review utensil list provided and add any other needed equipment. Pre-measure dry ingredients for muffin lab.

Safety First: (10 minutes, answer key at end of file) What safety rules were followed in the muffin video? Students indicate which statements are safe/unsafe by either signaling thumbs up/down gesture or using an index card with smiley/frown faces. When using index cards students draw:

- a smiley face 😊 on one side to represent safe statement
- a frown 😞 on the reverse side for unsafe statement.



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FCS Lesson Plans: TEACHER GUIDE
Ham & Cheese Muffins

1. When placing a muffin tin filled with batter in a preheated oven use potholders.
2. If you forget to preheat the oven just add ten minutes on to the baking time.
3. Rinse off your hands and cutting board with water after handling raw meat.
4. When dicing ham cut away from you on a counter.
5. A grater is designed to rub the block of cheese in a downward motion in order to grate or shred it.
6. A hot muffin tin coming out of the oven is set on the counter to cool.
7. Do not place sharp knives or a grater in soapy water to soak.
8. Open the door of a preheated oven just far enough to slide the pan onto the shelf.
9. If a glass bowl or measuring cup is broken pick up all the larger pieces with your fingers and sweep up smaller pieces.
10. Clean up spilled ingredients or liquids immediately.

Day 2 – Muffin Preparation

Each kitchen group reviews their *Time Matters* plan. Teacher announces location of ingredients in room, etc. Muffin batter is prepared and baked. During baking time kitchens are cleaned and arrangements are made for a place to cool and package muffins.

Day #3 - Debriefing Muffin Lab (15 minutes)

Students sample muffins as they debrief. Each kitchen group responds to these questions:

- What did we do very well – be specific about steps?
- What could have been improved if we made this recipe again in class?
- What are the two most important lessons we learned from this lab that we can apply to the next class when we are cooking?



Optional Activities to Enhance Learning

Take Your Recipe Home

Encouraging students to take responsibility for food preparation at home is a great way to extend their learning beyond the classroom. Teacher may explain this option and distribute the half-page handout where students record their experiences.

Pork Jumble

Each set of partners go to www.pork4kids.com and click on Games & Activities. Select Pork Jumble for ages 9–11 (or other age appropriate group.) Students work at their own pace identifying parts of pig and record score they earn. The activity also includes an “on the farm” category using terms like boar, gilt, piglets, sow, corn, etc. There are hints provided for each term to assist the students.

Connect Four – Safety & Sanitation

Review safety and sanitation rules to follow when cooking by playing game with students. Two sets of questions and answers are provided. See separate document for Connect Four activity. A SmartBoard option is also provided.

Ham at a Glance

What is ham? How does it look? How does it taste? Challenge students to discover five or more facts about ham.

Ham is pork leg meat that has been cured, resulting in a sweet, smoky flavor. Because the leg muscle is a well-exercised part of the pig, ham is surprisingly low in fat. With only about 112 calories per 3-ounce serving, lean ham is a healthful choice and packs a powerful nutrient punch. Like all pork, ham is a great source of protein, and one of the richest sources of the B-vitamin thiamin.

Hams are usually either wet- or dry-cured. The ham that you find in your grocery store is likely to have been wet-cured, which means that it has been treated with a brine solution of water, salt, sugar and spices. The brine ensures that the meat stays moist and tender and helps to lend ham its appealing taste and texture. Wet-cured hams are a favorite choice from dinner centerpieces to lunchtime sandwiches. Nutritious, lean ham can be served hot or cold, and is available boneless or bone-in.

Dry-cured hams are rubbed with a mixture of salt, sugar and spices, and then aged from a few weeks to more than a year. Country ham is an example of a dry-cured ham. Because country hams are especially salty, enjoy this ham thinly sliced on biscuits or as a flavor enhancer for recipes. Think of country ham as the American version of Italian prosciutto.

ANSWER KEYS

HAM IT UP Placing steps for muffin preparation in meaningful sequence.

1. Wash hands. How will you keep your clothes clean and hair out of food?
2. Get out utensils.
3. Preheat oven to 400 degrees Fahrenheit.
4. Lightly grease and flour muffin tin.
5. (or #6) Measure in one bowl: 1 cup buttermilk, ¼ cup vegetable oil. Crack egg into small bowl.
6. (or #5) Measure in bowl and stir: 2 cups flour, 1 tablespoon baking powder and ½ teaspoon salt.
7. Whisk together buttermilk, oil and egg.
8. Dice and weigh 8 ounces of ham.
9. Grate 1½ cups Cheddar cheese.
10. Stir in ham and cheese to liquid ingredients.
11. Using a rubber scraper, stir egg mixture into bowl and dry ingredients just until combined.
Do not over mix. Muffin batter is lumpy.
12. Spoon batter into each of the prepared muffin tins, approximately ¾ full.
13. Place filled muffin pan on rack in middle of oven. Set timer for 20 minutes.
14. Bake until golden brown. Remove from muffin tin and let cool.

Safety First Determining which are safe and unsafe statements.

1. When placing a muffin tin filled with batter in a preheated oven use potholders. 😊
2. If you forget to preheat the oven just add ten minutes on to the baking time. 😞
3. Rinse off your hands and cutting board with water after handling raw meat. 😞
4. When dicing ham cut away from you on a counter. 😞
5. A grater is designed to rub the block of cheese in a downward motion in order to grate or shred it. 😊
6. A hot muffin tin coming out of the oven is set on the counter to cool. 😞
7. Do not place sharp knives or a grater in soapy water to soak. 😊
8. Open the door of a preheated oven just far enough to slide the pan onto the shelf. 😞
9. If a glass bowl or measuring cup is broken pick up all the larger pieces with your fingers and sweep up smaller pieces. 😞
10. Clean up spilled ingredients or liquids immediately. 😊

*Lesson plans provided by Wisconsin Pork Association, in conjunction with Cathy Lader, Education Consultant.
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