Module 3
Teacher’s Guide

GOAL: Students will learn nutrition, selection, storing, handling, and food safety information for pork to help them make improved consumer decisions.

Pork Nutrition
- Pork is high in protein.
- Pork is packed with many vitamins & minerals. A 3 oz. serving provides the following daily values: Thiamin (54%), niacin (37%), riboflavin (19%), vitamin B-6 (37%), phosphorus (20%), zinc (14%), and potassium (11%).
- According to an analysis by the US Department of Agriculture, pork tenderloin contains the same amount of fat and slightly less calories than the same serving size of skinless chicken breast.
- The same analysis found there are six cuts of pork that are considered either extra lean or lean by labeling standards. They are all from the loin of the pig.
- See how pork compares to other meats, poultry, and fish.

Selecting Pork
- Higher quality pork performs better in the kitchen. It delivers better flavor and texture. The quality of fresh pork depends on its color, texture, and marbling.
- Choose meat that’s pink with a small amount of marbling (small flecks of fat) and white (not yellow) fat. Avoid choosing meat that is pale in color.
- Choose wrapped packages without any tears, holes, or leaks. There should be little or no liquid in the bottom of the tray.
- Avoid choosing any meat that has dark colored bone.

How Much?
Before purchasing pork, take a moment to consider your needs. Ask yourself a couple of quick questions:
- How many people are you planning to feed? The average serving size for pork is 3 ounces of cooked meat. Start with 4 ounces of boneless, raw pork to yield 3 ounces of cooked pork. A 3-ounce serving is about the size of a deck of cards.
- What is the eating occasion? If time is limited for a weeknight meal, select smaller quick-cooking cuts such as pork chops, cutlets, cubes or strips. If you’re entertaining for a holiday meal and have several other dishes to prepare, consider choosing larger, slow-cooking cuts such as roasts that cook several hours and require little attention.

Handling & Food Safety
- Never eat leftover food that was left out overnight. Bacteria grow most rapidly in the range of temperatures between 40° and 140° F, some doubling in number in as little as 20 minutes. Some types will produce toxins that are not destroyed by cooking.
- Pathogenic bacteria do not generally affect the taste, smell, or appearance of a food. In other words, one cannot tell that a food has been mishandled or is dangerous to eat. If a food has been left in the “Danger Zone” – between 40° and 140° F – for more than two hours, discard it, even though it may look and smell good. Never taste a food to see if it is spoiled. It is always best to use the rule of “When in doubt, throw it out.”
- Leftovers should be placed in the refrigerator within 1 to 2 hours of serving. Store cooked leftovers in the coldest part of the refrigerator for 4 to 5 days. Well-wrapped leftovers can be kept in the freezer for up to 3 months.

Food Safety – Cooking Temp
- What about Trichinosis? This is an infection caused by a parasite that can live in pork and other meats. Because of modern feeding practices, trichinosis is no longer a concern. Although trichina is virtually nonexistent in pork, if it were present, it would be killed at 137° F.
- That’s well below the recommended end cooking temperature for pork, which is 145° F, followed by a 3-minute rest time.
- Use a meat thermometer to check for “doneness.” It should be inserted into the thickest part of the meat, away from bone.
- Ground pork should be cooked to 160° F.
- Check the pork time and temperature cooking chart.

OPTIONAL ACTIVITY - Have students cook different thicknesses of meat at different cooking temperatures in an oven. Check the internal temperature of each piece every 5 minutes with a meat thermometer. Determine the cooking time and temperature to reach 145° F for different cuts. Different ovens will give varying results. Students may then create their own cooking charts.
Food Safety – On the Farm
- Ensuring pork food safety is a complex issue that requires awareness of the role that everyone plays in the food chain.
- Many factors on the farm can affect the safety of pork, which is why today’s farming operations employ a wide variety of technology and techniques to minimize food safety threats.
- Modern practices such as raising pigs indoors and closely monitoring all aspects of biosecurity have vastly improved today’s pork in terms of safety and quality.
- WATCH THE VIDEO - Ask students if they feel pig farmers are working to ensure food safety. How may a pastured-pig production system be different?

Storing - Refrigerator
- Sealed, pre-packed, fresh pork cuts can be kept in the refrigerator 2 to 4 days; sealed ground pork will keep in the refrigerator for 1 to 2 days. If you do plan on keeping the raw, fresh pork longer than 2 to 3 days before cooking it, store it well-wrapped in the freezer.
- Whole smoked ham and whole ham slices can be stored in the refrigerator for 3 to 4 days or the use by date on the label. Smoked sausages, hot dogs, bacon and other deli meats can be kept for up to 7 days or the use by date on the label.

Storing - Freezer
- Use one of these freezer wrap materials: specially-coated freezer paper (place the waxed side against the meat), heavy-duty aluminum foil, heavy-duty polyethylene film, heavy-duty plastic bags.
- Re-wrap pork in convenient portions: leave roasts whole, place chops in meal-size packages, shape ground pork into patties. Put a double layer of waxed paper between chops and patties.
- Cover sharp bones with extra paper so the bones do not pierce the wrapping.
- Wrap the meat tightly, pressing as much air out of the package as possible.
- Label with the name of the pork cut and date.
- Freeze at 0° F or lower.
- Generally, fresh cuts of pork, like roasts, chops and tenderloin can be kept well-wrapped in the freezer up to 6 months. Well-wrapped ground pork can be kept for about 3 months in the freezer.
- The National Pork Board does not encourage freezing cooked ham, since it affects the quality and texture of the meat. However, leftover ham for use in soups or casseroles can be cut up into slices or cubes and stored in the freezer for 2 to 3 months.
- According to the USDA, once food is thawed in the refrigerator, it is safe to refreeze it without cooking, although there may be a loss of quality due to the moisture lost through defrosting. After cooking raw foods, which were previously frozen, it is safe to freeze the cooked food.

Storing - Thawing
The best way to defrost pork is in the refrigerator in its wrapping. Follow these guidelines for defrosting pork in the refrigerator:
- Small roast will take 3 to 5 hours per pound
- Large roast will take 4 to 7 hours per pound
- One-inch thick chop will take 12 to 14 hours
- Ground pork needs to be estimated by package thickness
- Can I use my microwave to defrost pork? - Follow the microwave manufacturer’s guidelines for defrosting meat. Cook meat immediately after microwave thawing.
- It is safe to cook frozen or partially-frozen pork in the oven, on the stove or grill without defrosting it first; the cooking time may be about 50 percent longer. Use a meat thermometer to check for “doneness.” It is best if frozen pork roasts are cooked at an oven temperature of 325° F. Do not cook frozen pork in a slow cooker.

Exit Ticket
Have students complete the questions. A printable worksheet is provided.

1. Name two vitamins and/or minerals found in pork.
   a. 
   b.
2. What are two things to look for when choosing a cut of pork?
   a.
   b.
3. Whole pork cuts should be cooked to an internal temperature of _______. Ground pork should be cooked to _________.
4. Place leftovers in the refrigerator within _________ hours.
5. What type of meat should never be placed in a slow-cooker?
Pork Nutrition

Pork is Lean, Nutrition
1. Pork is high in ________________.
2. Pork is packed with many ______________ and ______________.
3. A 3 oz. serving of pork tenderloin has the same amount of __________ and slightly less ______________ than a 3 oz. serving of chicken.
4. ________cuts of pork are considered extra lean or lean by labeling standards. Most are from the ___________ of the pig.

Selecting Pork
1. ________ _______________ pork performs better in the kitchen.
2. The quality of fresh pork depends on: ____________, ____________, and ____________.
3. Color: ___________ with marbling and ___________ fat.
   Avoid ________________ colored meat.
4. Packaging: No tears, ________________, or leaks. Little or no ______________ in tray.
5. Avoid choosing any meat that has dark colored ____________.

How Much?
Two questions to ask to choose a cut of meat:
1. __________________________________________________________
Start with __________ of boneless, ________ pork to yield 3 oz. of __________ pork. A 3-ounce serving is about the size of a ________________.

2. __________________________________________________________________
For weeknight meals use __________, ______________, or strips.
For holidays meals, use ________________ cuts such as __________.

Handling & Food Safety
1. Never eat leftover food that was left out ________________.
2. Leftovers should be placed in the refrigerator within ______ hours of serving. Store cooked leftovers in the ________________ part of the refrigerator for ________ days. Well-wrapped leftovers can be kept in the freezer for up to ________ months.

Food Safety – Cooking Temp
1. Because of modern ________________ practices, ________________ is a no longer a concern.
2. If it were present, it would be killed at ________.
3. That’s well below the recommended end cooking temperature for pork, which is ____________, followed by a _____-minute rest time.
4. Use a ________________ to check for doneness. It should be inserted into the ________________ part of the meat, away from ____________.
5. Ground pork should be cooked to ________________.
Food Safety – On the Farm

1. On the farm, many factors can affect the ______________ of pork, which is why today’s farming operations employ a wide variety of ______________ and techniques to ______________ food safety threats.

2. Modern practices, such as raising pigs ______________ and closely monitoring all aspects of ______________, have vastly improved today’s pork in terms of safety and ______________.

Storing - Refrigerator

How many days?
Sealed, pre-packed fresh pork cuts - ____________ days
Sealed ground pork - ____________ days.
Whole smoked ham and ham slices - ____________ days
Smoked sausages, hot dogs, bacon, etc. - ____________ days
The ______________ on the label is also a good guide.

Storing - Freezer

1. Identify 2 safe freezer-wrap materials: ______________ and ______________.
2. ______________ pork in convenient portions.
3. Cover sharp bones with ______________ paper.
4. Wrap the meat tightly, pressing as much ______________ out of the package as possible.
5. Label with the ______________ and ______________.
6. Freeze at ______________ or lower.
7. Well-wrapped ______________ pork can be kept for about ____________ months in the freezer. Well-wrapped ground pork can be kept for ____________ in the freezer.

8. Should you freeze a cooked ham? __________
9. Can you refreeze thawed meat? __________ , but there may be a loss of ______________.

Storing - Thawing

1. The best way to ______________ pork is in the refrigerator in its ______________.
2. Follow these guidelines for defrosting pork in the refrigerator:
   A small roast will take ______________ hours per pound.
   A large roast will take ______________ hours per pound.
   A one-inch thick chop will take ______________ hours.
   Ground pork needs to be estimated by package ______________.
3. Follow the ______________ manufacturer’s guidelines for defrosting meat. ______________ meat immediately after microwave thawing.
4. It is safe to cook frozen or partially-frozen pork in the ______________, on the ______________ or ______________ without defrosting it first; the cooking time may be about ____________ percent longer.
5. Use a meat ______________ to check for doneness. It is best if frozen pork roasts are cooked at an oven temperature of ______________.
6. Do not cook frozen pork in a ______________.
1. Name two vitamins and/or minerals found in pork.
   a.  
   b.  
2. What are two things to look for when choosing a cut of pork?
   a.  
   b.  
3. Whole pork cuts should be cooked to an internal temperature of __________. Ground pork should be cooked to __________.
4. Place leftovers in the refrigerator within __________ hours.
5. What type of meat should never be placed in a slow-cooker?