Participating in 4-H foods projects can and should be a fun, active learning experience. Because they also include a judging situation, this module has been developed to help you plan and carry out your project according to the guidelines from Georgia 4-H.
Congratulations on choosing a 4-H foods project. Through this project, you will learn about nutritious food choices and eating a healthy diet, safe food handling and how to prepare a nutritious food product.
In this presentation, I will talk about organizing your foods lab experience, working safely and efficiently, and important steps in carrying out recipe preparation.

You should be sure to study the other Georgia 4-H foods and nutrition slide shows about safe food handling and nutrition, as these projects are not just recipe and cooking contests. It is very important that you also follow through on the objectives to learn about nutrition, MyPlate and dietary guidelines, and food safety. These foods labs projects are much more than a recipe or cooking contest; the goal in all the projects is to learn about nutrition and safe food handling, and then apply that knowledge in the preparation of a recipe.
OK, let’s get started on organization of your project. First, it is very important that you thoroughly read and understand the descriptions and objectives for the specific foods project you have chosen. There are other policies and requirements in the Project & Activity Guidebook for these 4-H competitions.

Each project will have its own requirements for the types of food recipes that are suitable. In the 7th and 8th grade foods labs projects, you will choose from a selection of required recipes. For example, in Better Breakfast, you will choose from Hearty Pancakes with Apple Syrup Topping, Breakfast Burritos, Crunchy Apple Salad with Grilled Cinnamon Toast or Harvest Muffins.

For the 9th-12th grade foods labs projects, you can select a recipe of your own that fits the criteria for your project, or there are suggested recipes for each of the three projects on the 4-H website. For these grade levels, it does not matter in scoring whether the 4-H’er uses a suggested recipe or selects another good recipe on his or her own. What does matter is that the recipe must meet the requirements and objectives of the project.
In selecting your recipes, be sure to consider using a variety of cooking skills techniques. The more techniques you can demonstrate for the judges, the more you will display knowledge gained by carrying out your project. For example, be sure to include one or more of the following methods: mixing, whisking, blending, or folding. Two or more of the following techniques are suggested: peeling, slicing, dicing, grating, mashing, mincing, shredding, spreading, measuring, cracking or breaking and adding an egg, or garnishing. You will only use what is appropriate for your recipe, but these ideas are presented to help you decide on a recipe to display more knowledge and skill.

This is not a checklist of required skills, and the judge is not given a list of cooking skills to check items off. These are suggestions to help you in choosing a recipe of sufficient skill to be competitive. It bears repeating that this is not a cooking competition, and often 4-Hers lose not because of their recipe choice, but because they do not have the expected knowledge and understanding from the nutrition and food safety objectives of the project and/or do not have command of the skills needed to put the recipe together. Poorly executed skills in whatever recipe is chosen can detract from your score. Trying to do too much or too complicated of a recipe may also work against you, if you do not do everything attempted well.
Each of the 4-H foods lab projects requires that you also prepare a menu. You will learn more about menu and meal planning in the slide show called “Nutrition for 4-H Foods Projects: Recipe Selection and Menus”. Be sure to prepare your menu neatly on the required form, and have it ready to display for judges at the competition.

While we are talking about printed materials needed at the competition, be sure to also prepare your recipe for display with your finished product. You should have one copy of the recipe you will work from, and one for display and use by the judges. It is a good idea to have extra copies of the recipe for each of the two judges in case they need to keep it at the judging table. Then you will still have a copy on your table with the presentation of the final dish.
Let’s consider many of the topics to think about as you plan your project.
As you plan, you also need to plan your dress and appearance carefully. 4-Hers should follow certain DOs and DON’Ts for a professional, neat appearance and safety while preparing food.

DO:
- Wear a hairnet or other hair restraint so that there is no loose or dangling hair that can get into your food during preparation or serving. Long hair should be in a ponytail or bun with bangs or any loose strands pushed under the hair restraint. Beards and mustaches longer than ½ inch should be covered; if this applies, the 4Her needs to bring the appropriate beard net. 4-H supplies only hair nets for those who forget to bring them.
- Take off all rings, bracelets, necklaces and earrings. All jewelry should be removed before the contest begins.
- Wear a clean apron or lab or chef’s coat, with apron straps secured.
- Have trimmed and unpainted fingernails.
- Wear gloves if hands are injured or cut.
- Wear closed-toe, low or flat heeled shoes.
- Be neat and clean at all times.
- Be sure to watch the slide show called “Keeping Food Safe” (Food Safety for 4-H Foods Projects) for more details on handwashing and avoiding bare hand contact with ready to eat foods.

DON’T
- Have hair loose or in your eyes and face
- Be messy, sloppy or dirty.
- Have long, loose sleeves on your shirts or tops.
- Chew gum.
Practice, Practice, Practice

• Practice on the same size table or work area that will be available.
• Make sure you can complete your work from start to finish in the allotted time.
• Practice answering questions from someone while you work.

It is a good idea to practice making your recipe at home on a same or similar size table to those at the competition site. This will help with your organization, keeping to time limits and feelings of ease and efficiency on the competition day.

Make sure you can complete your work from start to finish in the allotted time. This includes unpacking, making your recipe, cleaning up from food preparation, setting out your table display and place setting, and cleaning up from serving.

Practice answering questions from someone while you work.
Small appliances are not allowed for 7th and 8th grade 4-H foods lab projects.

For 9th-12th grades, only an electric blender and/or hand mixer are allowed, if needed, for prepping ingredients that cannot be accomplished without them. This means, for example, no food processors, griddles, panini presses, culinary torches or portable burners (electric or gas) are permitted.
Choosing Ingredients

Food Safety Precautions

• Commercially prepared pasteurized milk, milk products and cheeses
• Meat that is USDA inspected
• Commercially produced eggs and egg products, including mayonnaise
• Commercially canned foods, not foods canned at home
• Ingredients not in original packaging should be labeled on their container.

The 4-H foods lab projects do involve preparing foods that will be served to and tasted by judges and possibly other attendees at the competition. Certain food safety precautions are required that may be different from choices you make for your own family at home. For your 4-H project, you should use only:

• Commercially prepared pasteurized milk, milk products and cheeses
• Meat that is USDA inspected
• Commercially produced eggs and egg products, including mayonnaise
• Commercially canned foods, not foods canned at home

Make sure any ingredients not in their original package have labels on the container you’ve used for packing them.
We cannot provide a complete lesson in cooking skills here, but let me address some of the common best practices and tips. Practice preparing all steps in your recipe. Remember that ingredients are not to be prepared ahead of time. (However, if the recipe calls for shredded cheese, you may bring purchased shredded cheese.)

1. Use liquid measuring cups to measure liquids and dry measures for dry ingredients. Measuring spoons can be used for either. Measure over trays, or at least over waxed paper or paper towels, and not over the bowls or pans where you are assembling the rest of the ingredients.

2. Spoon dry ingredients like flour and sugar into a dry measuring cup. Then level off the measure by pushing a flat spatula or knife across the top. Liquid measures should be taken in liquid measuring cups only, at eye level with the container resting on the table top. Look at the bottom of the curved shape at the top of the liquid, called the meniscus. The Flash animated video presentation called “Judging 4-H Foods Labs” on the 4-H website demonstrates measuring of liquid and dry ingredients.
Use equipment and tools to fit the job you’re doing.

Use the right knife for the right job. For example, a large butcher knife shouldn’t be used to peel an apple. Sharp knives are safer than dull ones; you don’t have to use as much force to cut. If a knife starts to drop or fall, jump back. Don’t try to catch the knife.

Vegetable peelers should be used when appropriate, and not knives.

Keep fingers away from the cutting edge of the knife, or any sharp edges on peelers, corers or other small utensils.

There are some safe knife handling techniques for cutting and carrying knives in a video found linked under other resources on the 4-H foods and nutrition website.
Use a clean, sanitized cutting board for chopping, dicing, slicing, etc. Do not chop, slice or dice in the palm of your hands. Curl the edges of your fingertips back away from the knife edge.

Be sure to watch the slide show called “Keeping Food Safe” (Food Safety for 4-H Foods Projects) for more details on cleaning and sanitizing cutting boards.

You can prevent cutting boards from slipping around the table top by using a dampened dish or other thin cloth underneath the board.
On this slide, you see someone cutting on a cutting board, as desired, as well as a dangerous technique of slicing through firm broccoli stalks directly into the fingers. There is a cutting board underneath the measuring cup, and the vegetable should be chopped or sliced onto the cutting board and then scooped up and placed into the measuring cup.

As another note, by cutting directly into the measuring cup, if there is an accident and fingers are cut, then the whole amount in the measuring cup would have to be discarded.
Crack eggs into a separate clean cup or bowl. Then, if shell gets in, or the egg is bad, you haven’t ruined the whole mixture by cracking the egg directly into it.

Always bring an extra egg or two in case of accidents or bad eggs.

The egg should be cracked in such a manner as:
• The egg is cracked into a separate small container and examined before being added to other ingredients.
• There is no risk of getting shell into a mixing bowl with other ingredients
• There is no risk of putting a “bad” egg with spots, body parts or foul odor into a mixing bowl with other ingredients.
• There is no risk of losing a portion of the egg on the tabletop or down the side of a bowl.

The Flash presentation on the 4-H website, “Judging 4-H Foods Labs,” demonstrates one method that can be used to crack an egg, but this is not the only acceptable one.

Furthermore, after breaking eggs, utensils and surfaces that come in contact with raw eggs should be washed with hot water and soap. Hands should be washed for at least 20 seconds with soap and running water after handling raw eggs.
Now that you have studied your project guidelines, nutrition and food safety knowledge, selected your recipe and practiced your food preparation techniques, it is time to also plan how you will get everything you need to the competition.
You should make a written out checklist of supplies and ingredients needed. Think about planning your containers to minimize the number needed and the chance you will leave something out or lose track of it on your trip. This might mean some heavy, larger containers so think ahead about how those will be handled and carted. And do plan on sizes that can be stored under your demonstration table while you work.

Plastic storage containers with snap on lids and handles work well; they also can be washed and sanitized well before and after the competition.

Coolers will be needed for items that must stay cold.

Make sure ALL containers are clearly labeled with name and county; a cell phone number is also helpful for contacting someone on site if your container gets left behind somewhere.
Plan your packing containers and coolers to observe basic food safety rules covered in “Keeping Food Safe” (Food Safety for 4-H Foods Projects), such as separating raw ingredients like meat, poultry, fish and eggs from foods that will be eaten without cooking.

Temperature control is important to manage, so you are able to keep all perishable ingredients at 40 degrees F or lower.
Remember to make yourself a LIST, or more than one list if needed. Some of the things to remember are:

- All the tools and equipment needed for each step of your recipe. Also remember all the items you need for your place setting, and displaying and serving your dish.

- Pack dry ingredients in original packaging, over-wrapped, and sealed in a zippered bag.
  - You don’t want to take a chance on them breaking open, or getting wet and you losing the ingredients you need for your recipe.

- If any ingredients are removed from original packaging, label correctly.

- An extra recipe or two for judges to use while you work from yours.

- Your menu
Be sure to include some basic supplies that will be useful regardless of your recipe.

- Trays for organizing your work station; I will talk about these again later in this presentation.

- Wiping cloths for unexpected spills; disposable ones are a good choice.

- A supply of clean or disposable towels to dry utensils for re-use. A limited supply of these is provided for use while at DPA, but it doesn’t hurt to be prepared with some of your own.

- Serving utensils appropriate for food being prepared.

- Non-breakable utensils, tableware, measuring cups and mixing bowls are a good idea (plus they can be less noisy to work with).

- Bring containers or plastic bags for leftover ingredients. However, also plan your recipe so there will not be a lot of leftovers. You will not be allowed to take leftover prepared food back to the cabin. Be prepared to safely transport any leftover ingredients you plan to take home.
4-Hers are responsible for equipment, food preparation supplies and utensils, ingredients, and serving dishes and utensils.
Arriving at the Competition

Check in with the Project Coordinator

• The Coordinator will facilitate the project
• Follow directions about where to work
• Do not unpack or begin any work until you are given permission
• If you have items in a refrigerator, locate them before it is time to begin

Check in with the designated Project Coordinator at the competition site. Follow the directions about where you are to prepare your food and when to unpack from the Coordinator at your contest. Do not begin until you are given permission to do so.

If you have ingredients that have been stored in a refrigerator at the competition site, make sure you find and retrieve them before it is time for the competition to begin. Each project has a time limit from start to finish and you do not want to waste that time looking for your ingredients.
Let’s talk a little more about organizing your workspace, now you are at the competition site.
The tables used at Rock Eagle 4-H Center in the foods labs should be adjustable in height. Make sure you adjust the table to a comfortable working height before you begin unpacking.

Check for the proper dress and appearance you planned.
- Remove jewelry
- Clean apron with secured strings, or lab coat
- Hair restrained

• Wash hands.

When the Project Coordinator tells you it is time to start, Wash your hands.
Consider using clean trays for organizing your work and table space. One way to organize the equipment and ingredients is to use at least two trays if not three or four that measure about 13” x 16”. If you don’t have trays at home you can use cookie sheets or baking sheets.

You can use one tray to organize your ingredients and small tools and utensils. Another tray could be used to prepare ingredients and measure them out according to your recipe. Yet another tray could be used to organize all your measured ingredients into dishes until you are ready to assemble your recipe. With other recipes, you might be able to use one of the trays to just assemble ingredients into a mixing bowl or baking pan. How to organize your work efficiently on trays is something you should practice and work out before coming to the competition.

We’ll see some examples on the next slide.

You should also have a large bowl or clean container of some kind to hold your trash from opening packaged foods, breaking eggs, peeling vegetables, or other discarded material from preparing ingredients. One trick that is useful, especially if table space is limited, is to tape a clean paper bag on the edge of your work table. Discards can go directly and easily into that bag. At the end of your prep time, you can remove the bag, close it up, and put into the trash can.

Store coolers and packing containers out of the way of judges and other contestants, under your work table.
This slide shows some sample tray set ups. The small photo also is to help you think about ways to organize your measuring before assembling the whole recipe, if needed. Consider using the smallest bowls and other prep containers as possible for some of your work. Notice how packing containers are placed under the work table, as well as that 4 trays could be set up on the DPA tables.

Notice also, how in the top picture, not only is the table messy and unorganized, there is a bag of some ingredients on the stovetop and another odd bag on the countertop next to the range. Never store items on top of the stove; this could be a hazard if a burner is turned on accidentally, or still warm from previous use.
Now it is time to demonstrate all you have learned to the judges and audience.
Remember project time is start to finish.

Make sure you work on the provided table; work in clear view of the judges. You want the judges to be able to see what you know and do.
  • Do not work behind you on countertops.
  • Remember the table height may be adjustable for comfort.

Use your prepared checklists and follow the recipe instructions as written.

Ask the Project Coordinator for help if unfamiliar with the range or other equipment.
Presenting Your Project

• Keep work area neat, well-organized, and clean.
• Use proper preparation and cooking techniques.
  – Measure correctly and over trays, not other food items.
  – Use knives and other tools correctly.
• Practice good personal hygiene:
  – Do not touch face, hair, etc. while working
  – Wash hands frequently, as needed
• Do not cross-contaminate food.
• No bare hand contact with ready-to-eat foods.
• Place setting required.

• Keep your work area neat, well-organized, and clean.
• Use proper preparation and cooking techniques.
  • Measure correctly and over trays, not other food items.
  • Use knives and other tools correctly.
• Practice good personal hygiene:
  • Do not touch your face or hair while working. Do not scratch other body parts. If you do any of this, stop and wash up.
  • Wash hands frequently, as needed, as you work between different types of food items.
• Do not cross-contaminate food.
  • If equipment or tools drop, wash them thoroughly before continuing.
• Do not use your bare hands on foods that are ready-to-eat foods. You can either wear disposable foodservice gloves or you can use tongs, long-handled spoons or other utensils, or bakery tissue to touch the food.
• Remember you are required to display your finished dish in a place setting appropriate for the intended meal or type of dish.
1. Be prepared to answer questions while working. Practice this prior to the competition.

2. You want to be able to demonstrate your nutrition knowledge and support your choice of recipe. Make sure you can explain how the dish you are preparing relates to MyPlate guidelines.

3. You also want to be able to answer judges’ questions about how you are preparing ingredients and putting the recipe together. Each judge may not observe every step you carry out, so the judge may ask you to summarize or review what you have done in the judge’s absence from your table.

4. Be prepared to answer food safety questions about how you are preparing the recipe. For example, if you are making a cooked casserole or soup, expect to be able to answer questions about how a cook knows the food is safely done and ready to serve.
Part of the learning in these projects is to learn how to display your finished food project for tasting.

Your product should be displayed in a neat, attractive place setting that is appropriate for the intended meal or type of dish.

For some projects, you might want to think creatively about decorating your table to represent your theme. However, there is no need to go to a lot of expense.

What is important is correct placement of appropriate flatware being used and the suitability of the display for the finished product. Cleanliness and neatness of your table and serving dishes and utensils do matter.

See the provided guidance about typical place settings in the General Resources for foods projects.
Your work table should be cleaned up and washed off prior to putting out your table setting and displaying your finished food. Your recipe should be neatly displayed, easy for the judges and audience in the room to read as they study your presentation. Your menu form should also be neatly displayed, easy to access and read by the judges and others.
Judges will sample your food before others are allowed to taste. Be prepared to serve them at your table. Let the Project Coordinator know when you have your place setting and display finished, and you are ready for the judges to come score your presentation and sample your food.

Make sure you have brought a proper serving utensil for your food. For example, if it is a soup, you will want to bring a ladle or large spoon. If it is a casserole or pie, then a flat serving spatula for lifting portions out of the pan will be a good choice. If it is a salad, make sure your serving utensil choice allows the judges to get a portion of all components. Salad tongs may be a good choice.

4-H supplies basic plastic eating forks and spoons for judges, as well as small paper plates and napkins. If your food requires a more unusual dish, like perhaps a small bowl, you might want to consider bringing some. Sometimes styrofoam cups can be used for serving small portions hot soups. If you are serving hot soups or other very liquid foods, be sure the serving plate, bowl or cup is suitable for holding hot foods.
All projects must be cleaned up in the allotted project time. The 4-Her is responsible for cleaning up dishes, equipment, garbage and trash from his or her work area. The table top must also be washed up and left clean.
Your Project Coordinator will give you complete instructions about cleaning up and leaving the competition room.

1. All dirty dish cloths and towels should be placed where the Project Coordinator for your project directs.

2. Be sure to clean all food and trash out of your sink.

3. The stove top should also be cleaned well, left ready for the next project.

4. Any ingredients that had been stored in the refrigerator prior to the competition should now be removed and disposed of.

5. Follow the directions of your Project Coordinator about being checked out of your kitchen area and receiving permission to leave. Do not leave until released by the Project Coordinator.
Your goal for carrying out a 4-H foods lab project should be to do so with confidence. Smile and relax while you are working and presenting. One way to be able to do this is to:

Practice, practice, practice
- Practice cannot be stressed enough so you can working efficiently and use proper techniques at the contest. It reduces stress you will feel at the event.

Also remember to first become familiar with the project guidelines and score sheet. This way you will not be surprised by judges’ questions or scoring.

Study your nutrition and food safety as well as practicing your recipe. Be sure to watch and study the other Georgia 4-H foods and nutrition video modules on “Keeping Food Safe” and “Nutrition for 4-H Foods Projects.”
This module on General Guidelines for 4-H Foods Lab Projects for 7th-12th grades has been brought to you by Georgia 4-H and UGA Extension Family and Consumer Sciences, Foods and Nutrition.