

JUDGING 4-H FOOD LABS



INTRODUCTION

Welcome to District Project Achievement. Thank you for being a valuable part of the system that has made Georgia 4-H such a success.

"Creating an environment in which youth and adults can learn, grow, and work together for positive change," is just part of the 4-H mission statement that you are helping make possible.

You will help young people

- acquire knowledge
- develop life skills
- form positive attitudes

This CD will provide guidelines that will better assist you in judging "hands on" food labs.

Food labs include:

For Seniors:

- Food Fare
- Festive Foods for Health
- Dairy Foods

For Juniors:

- Food Fare
- Festive Foods for Health
- Dairy Foods
- Better Breakfast
- Muffins
- Pizza

This orientation will follow the score sheet outline as much as possible. Including details on:

- Grooming and Appearance
- Techniques or Skilled work
- Lab Management
- Food Handling, Storage, and Safety
- Menu Planning
- Table Setting
- Food
- Knowledge of Subject

Let's get started!

GROOMING AND APPEARANCE

Most 4-Hers participate to perfect skills they are particularly interested in. Perhaps someday the 4-Hers you observe today will be working in the field of foods and nutrition.

4-H helps students achieve a certain level professionalism by:

- providing experiences that will set them apart in their chosen career fields
- preparing them for the work environment
- teaching them what is appropriate in a professional setting



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4-Hers should follow these dos and don'ts for a professional appearance and safety

DO:

- [wear a hairnet](#)
- wear only small jewelry or none at all
- wear clean apron or lab coat, with apron straps secured
- have trimmed and unpainted fingernails
- wear gloves if hands are injured
- wear close-toed, low, or flat-heeled shoes
- be neat and clean

DON'T:

- have hair loose or in eyes and face
- wear large, dangling or noisy jewelry
- have long or painted fingernails
- wear open-toed or platform shoes
- be messy, sloppy, or dirty

TECHNIQUE

4-Hers need appropriate preparation techniques.

Several key techniques to watch for are:

- Measuring wet and dry foods
- Safe egg handling
- Safe use of knives and cutting boards
- Use of correct tools for peeling

Measuring

Measuring is an important technique to observe in the foods lab. 4-Hers are NOT allowed to pre-measure any ingredients. All measurements must be done on site.

Wet and dry measuring cups are made for specific purposes and each require different measuring techniques.

A WET measuring cup has a handle, is transparent, and is marked clearly with different amounts. It is used for food items such as milk, oil, and other liquids.

When measuring wet ingredients:

- fill liquid to desired marked line, NOT to brim of cup
- look at line of meniscus at EYE-LEVEL

A DRY measuring cup is used for flour, sugar and other dry foods. 4-Hers should follow these guidelines:

DO:

- place on plate or wax paper
- spoon in dry ingredients
- level ingredients with back of knife



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DON'T:

- pack ingredients
- measure over other ingredient containers

Special Attention: Brown sugar

GRANULATED - measure like white sugar, UNPACKED

UN-GRANULATED (moist, traditional type) - SHOULD BE PACKED

Proper packing technique:

- spoon into cup
- apply pressure with back of spoon to pack
- contents will hold shape of container when emptied

When items are measured out, it is best to place them in separate containers on a tray until all ingredients have been measured and the dish is ready to be prepared. 4-H'ers who use excellent lab management skills will have neat, well-organized worktables.

Measuring Spoons

SPOON dry ingredients into measuring spoons and level with back of knife

POUR liquid ingredients into measuring spoons, but NEVER over mixing bowl or other containers of ingredients

Eggs

Follow these dos and don'ts for safe egg handling.

DO:

- hold egg in palm of hand
- crack egg with back of knife
- open egg in separate bowl
- check for abnormalities

DON'T:

- crack egg on side of bowl
- open egg directly into other ingredients

Reasons for cracking egg correctly and placing in separate bowl:

1. Prevents the chance of placing a bad egg into the mixing bowl full of other ingredients
2. Bowl will look neater for the demonstration
3. Less of a chance the yolks will break if trying to separate yolk from white
4. Easier to pick out pieces of shell if necessary.

Always remember to wash hands after handling raw eggs.

Knives and Cutting Boards

Cutting boards and knives can also pose as a contamination hazard.

To avoid contaminating food, participants should:

- Sterilize work surface after preparing meat product(s)
- NEVER prepare vegetables on contaminated surfaces (whether to be served raw OR cooked)
- always clean surfaces to eliminate cross-contamination



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- scrub cutting boards in hot, soapy water
- rinse with clean, fresh water
- dry, if needed, with clean, unused towel

4-Hers should adhere to the following physical safety measures.

DO:

- place food on cutting board for chopping and dicing
- peel vegetables with a small paring knife or peeler

DON'T:

- cut or chop food in hands
- use inappropriate tools for peeling vegetables

During preparation, 4-Hers may use electric equipment such as a mixer. However, a well-prepared participant will place a towel under the bowl in order to minimize noise.

A well-prepared 4-Her should be aware of and practice these techniques throughout the demonstration.

1. Appropriate use of wet and dry measuring cups.
2. Appropriate measuring techniques with wet and/or dry ingredients.
3. Safe egg handling practices.
4. Always using a cutting board for any chopping or dicing.
5. Use correct tools for peeling.

LAB MANAGEMENT

Participants are responsible for all equipment, utensils, and ingredients. You, the judge, are not accountable for anything they might not have brought with them. However, we all want to see 4-Hers succeed and helping them locate a particular item could at times be appropriate. Ask the specialist in charge to help the 4-Her get the missing ingredients or equipment they need.

Participants who are prepared should handle food and equipment with ease and familiarity. The food and equipment are not the only things they should be familiar with. The lab station should be organized in a neat and practical manner.

After measuring, in order to be focused on setting up the actual mixing of their product, 4-Hers should:

- put away cups, knives and other unused utensils
- put away excess ingredients
- use individual containers for ingredients
- place tools and ingredients on trays
- stack containers and utilize tray for organization throughout preparation

FOOD HANDLING, STORAGE, AND SAFETY

Food labs differ from demonstrated talks in many ways. The planning for the food lab includes packing ALL equipment, utensils, pot-holders, paper towels, and food. 4-Hers must plan to store the food items at appropriate temperatures for travel and once they arrive at Rock Eagle.

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4-Hers should have items that require refrigeration in a portable cooler the day of the competition. However, the items should have been stored in a refrigerator over night. Ask the 4-Her which of their ingredients are perishable and how they stored them to bring them to Rock Eagle and once they arrived.

Safe food handling practices include:

- washing fruit or vegetables and drying with a paper towel
- using a cutting board for chopping, not the tabletop surface
- proper hand washing

Follow these dos and don'ts for proper hand washing

DO:

- wash hands before food preparation for 20 seconds
- use warm, soapy water
- either air dry or dry with a clean paper towel
- wash hands throughout demonstration to decrease risk of contamination

DON'T

- wipe hands dry on apron or clothing
- neglect washing hands at appropriate transitions in preparation

THE MENU

Learning to plan a menu, whether for one day or one month, is an important life-long skill that can help children become healthier adults. Juniors are required to prepare a one-day menu, while Seniors need to create a two day menu. [For additional information, please see the UGA Extension FACS publication, "Creating Top Notch Menus."](#) They also have a "One Day Menu Planner" on which you can write your menus if you wish.

Menus submitted by the 4-Hers should be well balanced in the following three areas:

1. Color - Mixing colors helps create interest and stimulates the taste buds.
2. Texture – It is important to add crunch and spice to any meal. Not everything on a plate should be soft and mushy!
3. Nutrition

While menus should contain a variety of colors and textures, nutrition is the most important aspect. The menu should include foods from each of the food groups and keep fat, salt and sugar in balance, as recommended by the Dietary Guidelines for Americans. Refer to the USDA MyPyramid (www.MyPyramid.gov) for amounts recommended from each food group per day for a 2000 calorie diet. (2000 calories is the reference amount on the Nutrition Facts Label.)

- ? Grains: 6 ounces (1 slice of bread is about 1 ounce. One cup of cereal and ½ cup of cooked rice/pasta each count as 1 ounce.)
- ? Vegetables: 2.5 cups
- ? Fruits: 2 cups
- ? Milk: 3 cups
- ? Meat: 5.5 ounces

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TABLE SETTING

Each [Junior](#) and [Senior](#) participant should bring and complete the table setting with the following, regardless of whether or not the 4-Her will actually need them with his/her dish:

- fork
- knife
- spoon
- plate
- napkin
- glass

[corresponding diagram of appropriate place setting]

Please note that the place setting is no longer required at the Cloverleaf level.

Well prepared 4-Hers may have a theme that goes along with their food item which may demonstrate additional decoration and effort. However, the 6 items mentioned above are the only **REQUIRED**, those who only adhere to the requirements should not receive deductions

FOOD

The following food guidelines are divided into each food lab. Pay close attention to the guidelines for the contest you are judging.

Pizza

- crust shape should be rounded
- crust an even brown
- crust smooth with no bulges or bumps
- crust crisp, but tender and chewy
- inside grains with thin cell walls and evenly distributed
- inside color medium brown, free of flour streaks
- free of undesirable flavors of oil or salt
- tempting smell

Muffins

- tops rounded, not peaked or bumpy
- tops an even, golden brown
- should not stick to pan
- rise above muffin tin but not overflow
- inside grains should be evenly distributed
- texture soft and moist
- texture with little to few tunnels
- flavor evenly dispersed
- no flour streaks
- no clumps of ingredients

Casseroles

- recipes vary
- recipe determines consistency of final dish
 - i.e. - chicken potpie is juicy but chicken and rice casserole is firm



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- ingredients distributed evenly
- cooked fully

Salads

- recipes vary
- recipe determines if salad should be layered or tossed
- recipe determines if salad should be served with hot or cold dressing
- ingredients should be fresh, crisp, and clean
- ingredients should be chopped into bite-sized pieces

Party Foods/Appetizers

- recipes vary
- recipe determines consistency of final dish
- ingredients distributed evenly
- ingredients not over- or under-cooked
- contain at least one reduced fat product

Dairy Foods

- recipes vary
- recipe determines consistency of final dish
- ingredients distributed evenly
- ingredients not over- or under-cooked
- contain at least one reduced fat product

KNOWLEDGE OF SUBJECT

To participate in hands-on food labs, 4-Hers must understand:

- measuring techniques
- common food safety and storage practices
- appropriate lab management
- professional grooming and appearance
- basics of nutrition
- science behind basic food preparation

Knowledge of subject is very important, the information learned by the 4-Hers can help create life-long positive eating, preparation, and cooking habits. Below are some suggested knowledge questions. It is important that participants have a firm understanding of these principles, so be sure to review the right answers at the end of the competition.

Often, knowledge determines who wins the competition when all else is equal.

Suggested Questions and Answers:

Q: What are the benefits of using whole wheat flour in your pizza dough?

A: Whole wheat flour provides more fiber than white flour. Fiber is an important part of a balanced diet and helps deter heart disease and some cancers.

Q: What is the Temperature Danger Zone (TDZ) for foods? What foods are more susceptible to spoilage in the TDZ?

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A: Foods that are high in protein and fat such as dairy products, eggs, meat, and poultry should be kept out of the TDZ, which is 40-140F.

Q: *How did you store your food for your demonstration?*

A: Food should be stored in a cooler with plenty of ice until refrigeration is available.

Q: *Why is it recommended that a person not eat raw or unpasteurized eggs?*

A: Raw eggs could contain Salmonella, a bacteria that can cause foodborne illness.

Q: *What is the recommended time that you should wash your hands? How often should you wash your hands?*

A: They should wash their hands for twenty seconds with soap and warm water. Drying with a paper towel is best. Washing hands throughout the food preparation process is suggested to help prevent cross contamination.

Q: *What are the differences between a dry and liquid measuring cup?*

A: A liquid measuring cup is transparent (to see line of meniscus) and used for measuring liquid ingredients. A dry measuring cup is usually opaque and used for measuring dry ingredients, such as flour and sugar. **The ingredients in dry measuring cups must be leveled off for accuracy since the top edge of the measuring cup is the "line."**

Q: *How do you measure dry ingredients?*

A: Placing a dry measuring cup on a plate or piece of wax paper, spoon the ingredient lightly into the cup. Then, with the back of the knife, scrap off the excess. However, with nongranulated, moist brown sugar, packing is appropriate. Using the back of a spoon, press the brown sugar into the dry measuring cup.

Q: *According to MyPyramid, which of the food groups would your recipe fit into?*

A:

Pizza:

- crust - Grains
- cheese – Milk
- sauce - Vegetables

Muffins:

- bread or muffin - Grains
- cranberries and orange juice – Fruits

Casseroles, salads, and party dishes will vary.

Q: *Where would eggs fit in MyPyramid? How much do you need from this group each day?*

A: Eggs would be in the Meat group because they contain protein. You need about 5.5 ounces of meat each day. (Not required, but one egg is about 1 oz. of protein.)

Q: *If a person is overweight and they would like to eat your product, could you modify it to make it lower in fat?*

A:

Pizza:

- Use low-fat cheese and use less cheese,
- Use lots of vegetables on pizza (green peppers, onions). These add flavor and fiber but not a lot of calories.

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Muffins:

- Use applesauce instead of **all or part of the oil** in recipe.

Casseroles:

- Use low-fat or fat-free sour cream, condensed soup, or mayonnaise.
- Use ground turkey or ground chuck instead of regular ground beef.
- Reduce the amount of cheese or use low-fat cheese.

Salad:

- Use low fat dressings.
- Use low fat cheeses.
- Replace croutons with fresh fruits and vegetables.

Q: How might you lower the fat in a recipe for chili which calls for regular ground beef?

- A. Any of the following techniques would be acceptable for lowering the fat content of the recipe:
- * Pour off the grease after the ground beef has been browned.
 - * Rinse the ground beef after it has been browned.
 - * Use extra lean ground beef or ground white meat of turkey instead of regular ground beef.
 - * The ground beef could be omitted if beans are included in the recipe since they are in the meat group.

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CONCLUSION

Please take a moment to fill out the information below so that we can add your name to the list of trained judges. Fax or mail it to:

Cheryl Varnadoe
317 Hoke Smith Annex
Athens, GA 30602

FAX: 1 706 542-4373

Name:

Email Address:

District:

Do you feel more prepared to judge as a result of this training? Yes Somewhat No

Comments and Suggestions:

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Thank you for participating in District Project Achievement