

CICN Presents:

CACFP Culinary Training

Baking



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CACFP Culinary Training Baking

Adapted from the *Healthier Meals Initiative Culinary Training Program*Developed by the Colorado Department of Public Health and Environment

Child and Adult Care Food Program

Training Manual

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Table of Contents

Background Information for Trainers	9
Training-at-a-Glance	11
Introduction	15
Ground Rules	17
Overall Training Goals	18
Training Objectives	18
Introduction to Baking	19
Culinary Basics	21
Components of Standardized Recipes	21
Mise en Place	27
Unit of Measurement	31
Weight vs. Volume Demonstration	33
Quick Breads and Yeast Doughs	35
Chef Demo.	39
Quick Bread Mixing Method	39
Team Cooking Lab	41
Recipe Evaluation	49
Action Planning	53
Wrap Up	55
Course Evaluation	55
References	57
Appendix	59
ICN Competencies	61
Professional Standards and Key Area Codes	61
Culinary Terms	63
Instructor's Preparation Guide	69
Chef Demonstration Guide	69
Team Cooking Lab	71

Equipment Checklist	75
Shopping List	77
Recipes	81

Background Information for Trainers

Instructor's Note: The purpose of the background information is to help you become familiar with the content of the training. It is not a part of the training detail.

Welcome to the CICN Presents: CACFP Culinary Training on Baking. This training manual was developed to serve as an instructional aid for you, the course instructor. The manual provides the content and educational tools needed to introduce child nutrition professionals to concepts and basic skills related to preparing and serving safe, high-quality meals. To assist in successfully conducting this training, the Training Manual includes the following prompts:



Demonstrate/Discuss

This prompt will be followed by talking points or instructions to deliver to the participants. Use these talking points as a guide for the topic of discussion. Following the instructions will assist you in having a successful training.



Key Messages

This prompt will provide important information child nutrition professionals should understand. Ensure the participants have a good understanding of these key messages before continuing with the training.



Class Discussion Prompts

This prompt will suggest questions to ask the participants to start a discussion among the group. For some questions, answers may be provided to help guide the conversation if participants seem reluctant to answer or do not cover the whole topic.



Activity Information

Participants will work in small teams. At the beginning of the training, divide the participants into six teams of four participants. (The recommended team size is four participants; however, if there are fewer than 24 participants, divide the total number of participants into six teams). Assign the recipes each team will work with during the culinary lab. (For teams with fewer than four participants, consider adjusting the recipe assignments).

Here are a few suggestions for developing teams:

- Allow participants sitting next to each other to be in teams or have them number off by the desired number of teams.
- Place different colored dots on nametags, note cards, or on the outside of the workbooks. The participants with the same color are in a group or pair.





Additional Information

- This training is intended for 24 participants, including hands-on food production activities for six teams of four participants each.
- The equipment list, shopping list, setup guide, and lesson preparation information can be found in the Appendix of the Training Manual.
- Refer to the References section of the Training Manual for all associated resource links.
- If participants have questions about CACFP requirements, direct them to contact their State agency or sponsoring organization.
- Allow time for one or two 5-minute breaks throughout the 4-hour training.

2 Training-at-a-Glance

Time	Topic	Task	Materials
		Introduction	
10 minutes	 Sign-in Sheet Training Manual Ground Rules Training Goals and Objectives Culinary Terms (Appendix) 		
		Introduction to Baking	

OBJECTIVES:

- Identify a variety of quick breads and yeast-leavened bread.
- Explain the nutritional benefits of preparing baked goods as opposed to using purchased products.
- Discuss how to incorporate a variety of scratch-prepared baked goods into menus.

	•		
15 minutes	 Definitions of quick breads and yeast-leavened dough Nutritional benefits of scratch-made baked goods Menu planning 	 Define quick breads and yeast-leavened dough. Discuss the nutritional benefits of scratch-prepared baked goods. Discuss ideas on how to incorporate scratch-prepared baked goods into menus. 	

Time	Topic	Task	Materials	
Culinary Basics				

OBJECTIVES:

- Recall the importance of utilizing standardized recipes.
- Demonstrate the correct use of mise en place.
- Explain the benefits of proper measuring using weight and volume.
- Demonstrate how to properly measure using weight and volume.
- Identify a variety of baking techniques with quick breads and yeast-leavened dough.
- Review ingredients and their functions.

45 minutes

- Standardized recipes
- Mise en place
- Weight vs. volume
- Define quick breads and yeast-leavened doughs
- Identify key components of a standardized recipe.
- Develop a mise en place list.
- Discuss units of measure.
- Discuss and demonstrate weight vs. volume measuring.
- Complete the Weighing Activity.
- Review ingredients and their functions.
- Define quick breads and review quick bread types and mixing methods.
- Define yeast-leavened bread and review yeast dough types.
- Discuss the twelve basic steps to yeast bread production.

- See Instructor's Preparation Guide in the Appendix for necessary supplies and equipment.
- Handout:
 - Weighing Activity
 - CICN Mise en Place infographic

Chef Demo

OBJECTIVES:

- Review culinary techniques used for the preparation of a variety of quick breads and yeast breads.
- Discuss food safety practices when preparing baked goods.

20 minutes	Preparation techniques	 Discuss baking techniques for quick breads and yeast-leavened dough. Demonstrate quick bread mixing methods. Review quality preparation benchmarks. Discuss proper holding of quick breads and yeast breads. Discuss storage and food safety considerations. 	See Instructor's Preparation Guide in the Appendix for necessary supplies and equipment.
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Time	Topic	Task	Materials	
Team Cooking Lab				

OBJECTIVE:

• Apply preparation techniques with a variety of quick breads.

15 minutes	Intro to the lab	 Assign teams/groups (6 teams of 4). Review recipe(s) for each group. Review food safety principles. Provide a brief kitchen tour – dish machine, pantry, equipment, small wares, pans, etc. 	 See Team Food Preparation, Equipment Checklist, and Shopping List in the Appendix for necessary supplies and equipment. Food Safety Fact Sheets: Handwashing Washing Fruits and
90 minutes	Team food production	Teams prepare assigned recipes.	
		Recine Evaluation	

Recipe Evaluation

OBJECTIVE:

• Evaluate the quality and usability of prepared baking recipes.

15 minutes	Sample foodsRecipe evaluation	 Handout: Recipe Evaluation Form
10 minutes	Clean kitchen	

Action Plan / Wrap Up

OBJECTIVE:

• Develop an action plan for implementing the skills learned during the training.

	' '	3	
10 minutes	Key takeaways	Team Share: Key takeaways and how they will be implemented in their program	Handout: Application Action Plan
10 minutes	Training evaluation	Wrap up session with closing thoughts.Conduct training evaluation.	Training Evaluation QR CodeSmartphone (each participant)



Time: 10 minutes

Instructor's Note: Introduce yourself and other guests. State your name, title/credentials, and relevant experience. Select an ice breaker from the list below. Confirm that participants have signed the sign-in sheet and that they all have a copy of the workbook and a pen or pencil.

Introductions

- Welcome to the CACFP Culinary Training on Baking.
- This training is designed to be hands-on, inviting you, the participant, to be an active learner.
 Today, we will focus on developing culinary skills that will better enable you to prepare scratch and speed-scratch recipes.
- This training does not include information on CACFP Meal Pattern crediting; however, here
 are some resources from the USDA Food and Nutrition Service where you can find trainings
 and information on crediting:
 - Crediting Tip Sheets in Child Nutrition Programs
 - Crediting Handbook for CACFP
 - Crediting Updates for Child Nutrition Programs: Be in the Know! Webinar Series

Ice Breaker Activity

Facilitate an ice breaker to allow participants to introduce themselves and identify their title/ credentials and relevant experience. Ideas may include asking participants to include a fun food fact about themselves in their introduction. Suggested examples include:

- What's the strangest thing you've ever eaten?
- If you could only eat one food for the rest of your life, what would it be, and why?
- What's something that you regularly ate growing up?
- What's your signature dish?
- If you could go to dinner anywhere tonight, where would you go?

Team Cooking Lab Assignments

After the ice breaker, instruct participants to form (or you may assign) six teams of four. Assign each team a number from 1 to 6 to correspond with the team's recipes. (The recommended team size is four participants; however, if there are fewer than 24 participants, divide the total number of participants as needed).

When using recipes in a culinary lab, assign the recipes each team will work with during the culinary lab based on the team's number from 1 to 6. (For teams with fewer than four participants, consider adjusting the recipe assignments).

This allows the participants to review the recipes in advance so they understand how the techniques discussed during the lectures and demonstrations will apply to the recipes they will prepare.

Team Cooking Lab Recipes

Team	1	2	3	4	5	6
Recipe 1	Raspberry Drop Biscuit	Whole Wheat Buttermilk Biscuits	Pumpkin Muffin Squares	Baked Hush Puppies	Banana Bread Squares	Pear Breakfast Gingerbread
Recipe 2	Savory Ham and Cheese Muffin	Breakfast Muffins	Cornbread	Oatmeal Muffin Squares	Apple Cinnamon Crumb Muffins	Corn and Wheat Muffins



ICN developed ground rules to help the training run smoothly and allow all participants to benefit from the course instruction and information.

Show up on time and come prepared.

Be prompt in arriving and returning from breaks. Come with a positive attitude.

Stay mentally and physically present.

Be present and stay on task. Listen attentively to others and avoid disruptive side conversations.

Let everyone participate.

Be patient when listening to others speak. Treat all participants with the same respect that you would want from them.

Listen with an open mind.

Stay open to new ways of doing things and listen for understanding. You can respect people's points of view without agreeing with them.

Think before speaking.

Seek first to understand, then to be understood. Avoid using idioms and phrases that can be misunderstood.

Attack the problem, not the person.

Respectfully challenge the idea, not the person. Honest and constructive discussions are necessary to get the best results.

Focus on food safety.

Always adhere to proper food safety practices. Practice proper handwashing and glove use, avoid cross-contact and cross-contamination, follow cleaning and sanitation practices, and proper temperature controls.

Maintain physical safety.

Kitchen environments are filled with the potential for accidents. Safeguard yourself and others by following good workplace safety practices. Keep floors clean and free of debris and standing water, move safely with sharp items such as knives, and use equipment with caution to prevent burns, cuts, and other injuries. Immediately report any injuries to the instructor.

Wear proper kitchen attire.

Wear proper kitchen attire during culinary labs. Proper attire includes closed-toed shoes (slip-resistant are preferable), a clean apron, and a hair restraint. Remove jewelry (including rings—except for a single, plain band without stones), remove nail polish and artificial fingernails, and maintain good personal hygiene.

Overall Training Goals

- Participants will be able to explain the importance of offering scratch-prepared baked items in the CACFP.
- Participants will identify a variety of quick breads and yeast breads.
- Participants will apply proper baking techniques for quick breads.
- Participants will demonstrate how to incorporate baked items onto CACFP menus.

Training Objectives

- Identify a variety of quick breads and yeast-leavened dough.
- Explain the nutritional benefits of preparing baked goods as opposed to using purchased products.
- Discuss how to incorporate a variety of scratch-prepared baked goods into menus.
- Recall the importance of utilizing standardized recipes.
- Demonstrate the correct use of mise en place.
- Explain the benefits of proper measuring using weight and volume.
- Demonstrate how to properly measure using weight and volume.
- Identify a variety of baking techniques with quick breads and yeast-leavened dough.
- Review ingredients and their functions.
- Review culinary techniques used for the preparation of a variety of quick breads and yeast breads.
- Discuss food safety practices when preparing baked goods.
- Apply preparation techniques for a variety of quick breads.
- Evaluate the quality and usability of prepared baking recipes.
- Develop an action plan for implementing the skills learned during the training.

2 Culinary Terms

There are a variety of culinary terms in the Appendix in the Culinary Terms section. Time does not allow for a review of all the terms and definitions. Let's briefly review the definitions for the following terms: **Aerate** and **Fold**. Do other culinary terms need clarification?

As we go through the training, please let me know if other terms are unfamiliar, and I will be happy to stop and provide further explanation.



Time: 15 minutes

Objectives:

- Identify a variety of quick breads and yeast-leavened bread.
- Explain the nutritional benefits of preparing baked goods as opposed to using purchased products.
- Discuss how to incorporate a variety of scratch-prepared baked goods into menus.

Discuss

Making scratch-prepared baked goods is cost-effective and controls the amount of fat, sugar, sodium, additives, preservatives, and artificial colors in the product.

Quick Breads

- Quick breads are ideal baked items for program menus because they are versatile, quick, and easy to make.
 - Examples: Banana, pumpkin, or zucchini bread, biscuits, cornbread, muffins, pancakes, tea bread, and soda bread
- As their name implies, quick breads can be prepared quickly. They use chemical leavening agents such as baking powder and baking soda to incorporate volume. The chemical leavening agents create carbon dioxide rapidly, so you can mix and bake the product in a short amount of time.
- Quick breads are usually tender products with little gluten development; mixing them just takes a few minutes.

Yeast-Leavened Bread

- Yeast-leavened bread is a popular type of bread worldwide. There are many different variations depending on the type of flour, yeast, and other ingredients used.
 - Some common types of yeast-leavened bread include white, whole wheat, sourdough, and French bread.
- Yeast-leavened bread is a type of bread made by using yeast as a leavening agent. Yeast is a
 type of fungus that consumes sugar and produces carbon dioxide gas as a byproduct, which
 causes the bread dough to rise and become lighter and fluffier.
- To make yeast-leavened bread, add yeast to a mixture of flour, water, salt, and sometimes sugar, and knead the dough until it becomes smooth and elastic. Let the dough rise, typically around one to two hours, to allow the yeast to ferment and produce carbon dioxide gas.
- Once the dough has risen, shape it into loaves or other desired shapes and then bake it in an
 oven. The heat of the oven causes the carbon dioxide gas to expand even further, resulting in
 a light, fluffy bread with an airy texture.

Nutritional Benefits of Scratch-Prepared Baked Goods

Scratch-prepared baked goods are an easy way to bring flavor to dishes while you control the amount of fat, sugar, additives, preservatives, and artificial colors. Here are ways to reduce fat and sugar and increase vitamins, minerals, and fiber:

- Reduce fat. Use low-fat or fat-free options for milk, buttermilk, and yogurt in baking recipes to contribute protein and calcium but reduce fat.
- Cut sugar. Make minor changes in a recipe to reduce sugar by about 25% without noticeable differences.
 - Example: If a recipe calls for 4 tablespoons of sugar, reduce the amount to 3 tablespoons. When reducing sugar, you may need to increase the liquid in a recipe.
- Add vitamins and minerals. Incorporate fruits and vegetables into recipes, such as banana bread or zucchini muffins. This adds extra fiber, vitamins, and minerals to baked goods.
 - Replace some of the butter or oil with shredded or pureed apple, carrot, banana, or pumpkin to boost nutrients, flavor, and moisture.
- Increase fiber. Whole grains are packed with essential vitamins, minerals, amino acids, and fiber. Adjusting bread recipes is an easy and versatile way to integrate whole grains into the menu for any meal or snack.
 - Quick breads: Replace enriched refined flour with whole grain flour at a one-to-one ratio.
 - Yeast breads: Substitute whole wheat flour for half of the enriched refined flour.

Incorporating Scratch-Prepared Baked Goods into Menus

- Start small. If all or most of your baked goods are made using a pre-prepared mix, try replacing one item with a scratch-prepared item. Once you feel comfortable with that recipe, increase the number of scratch-prepared recipes you make throughout the week or month.
- Double or triple the amounts made from your recipes. For example, bake multiple loaves of quick bread at a time and freeze some for later use.
- Alternatively, if you do not want to bake multiple items at a time, measure out the dry ingredients for multiple batches and store each of them in a labeled airtight container. This saves time when preparing the recipe in the future.

Key Message

 Making scratch-prepared baked goods is cost-effective and controls the amount of fat, sugar, sodium, additives, preservatives, and artificial colors in the product.

Class Discussion Prompts

Question: Does anyone make scratch-prepared baked goods in your program? If so, would you like to share which ones and how the children accepted them?

Allow participants to respond and thank them for sharing.

Question: List at least five pantry items that are useful when consistently baking from scratch.

Possible Answers: Flour, baking soda, baking powder, yeast, salt, sugar

What questions do you have?



Components of Standardized Recipes

Time: 45 minutes

Objective:

Recall the importance of utilizing standardized recipes.

Demonstrate/Discuss

- Food production begins with the standardized recipe, which provides the kitchen staff with all the steps and procedures necessary for consistent, quality food production.
- **Standardized recipe** A recipe that has been tried, adapted, and retried several times for use by a given foodservice operation, and it has been found to produce the same quality results and yield every time the exact procedures are used.
- Standardized recipes are important because they:
 - Ensure consistency.
 - Simplify the food preparation process for employees.
 - Provide a time standard (the amount of time required to produce a recipe).
 - Yield the same amount each time.
 - Provide safe cooking and holding temperatures.
 - Help determine how much food to order and help control costs.
 - Ensure participants receive a high-quality and consistent product.
 - Ensure CACFP meal pattern requirements and dietary specifications are met.
- Think of a standardized recipe as your blueprint or guide for preparing menu items.

Key Message

- Use standardized recipes for any food items that require more than one ingredient.
- Accuracy in the bakeshop becomes important because slight variations in proportions or
 procedures can mean great differences in the final product. To achieve the desired results, it is
 important to weigh/measure ingredients accurately and to control reactions that take place during
 mixing and baking by following proper mixing methods.

Class Discussion Prompt

Question: Why is it important to read the recipe before starting food production?

Possible Answers:

- An ingredient may be listed only once but used in two or more steps throughout the recipe.
- Ensure you have the correct food items in stock.
- Ensure you have the correct equipment and small wares available for use.
- Ensure the recipe is scaled to the right number of servings.

Demonstrate/Discuss

- Refer to the **Oatmeal Muffin Squares** recipe in the workbook.
- You can find standardized recipes developed by the USDA and Child Nutrition agencies by visiting the ICN's <u>Child Nutrition Recipe Box</u>.

To use a recipe, it is important to understand the components of a recipe. The components of a standardized recipe include:

- Recipe title and description
- Recipe category
- Ingredients
- Weight/volume of each ingredient
- Units of measure for each ingredient
- Preparation directions
- Cooking temperature, cooking time, and preparation time
- Serving size
- Recipe yield
- Equipment and utensils needed
- Crediting information
- Nutrient analysis
- Marketing guide
- Food safety guidelines/critical control points

More about each of the components of a recipe:

Ingredients

- Pay close attention to the ingredients.
- The ingredient name is usually clear and includes the type of ingredient—fresh, frozen, or canned, for example.
- If the preparation technique (e.g., carrots, sliced or onions, diced) is listed with the ingredient, weigh or measure the ingredient after it has been sliced or diced.
- Ingredients are usually listed in order of use.

Weights/Volume of Each Ingredient

- Note the weights and volumes when reviewing a standardized recipe.
- Weights and volumes are not interchangeable. It is important to decide when weights and/or volumes will be used in food production.
- You may see volume referred to as "measure," which can be confusing. What is important
 is to identify if the recipe calls for weight or capacity. Capacity is volume and nearly always
 references a liquid product.
- Weigh dry ingredients for better accuracy, and always use volume to measure liquid ingredients.
- Weigh and measure all ingredients before starting to cook or mix.

Preparation Directions

- Directions, or detailed instructions, are included with each standardized recipe.
- The directions are listed in sequential order when preparing the recipe.
- The directions tell how and when the ingredients should be combined.
- The directions may also include how to prepare a whole ingredient. For example, directions
 may include removing the rind and seeds of a whole cantaloupe and cutting the melon into 1-inch
 pieces.

Equipment & Utensils Needed

• Standardized recipes include the equipment and utensils needed for production.

Food Safety Guidelines & HACCP

- Standardized recipes include food safety guidelines and critical control points (CCP).
- CCPs, such as cooking and holding temperatures, ensure that the final product will be safe to eat.

Serving Size & Recipe Yield

- Serving size refers to the standardized amount each serving should be, which may be reflected in terms of volume (such as ½ cup), weight (such as 2.5 ounces), or dimensions (such as 2-inch x 2-inch piece).
- Recipe yield refers to the number of servings that will result when the recipe has been prepared correctly.
- Look for the serving size and recipe yield as you review a standardized recipe.
- Determine whether the serving size is appropriate for the ages served.

Crediting Information

• Crediting information is provided to inform the menu planner, cook, and/or server how a serving of the recipe credits toward a component (or components) of the meal pattern.

Key Messages

- The first step in any food preparation is to review the standardized recipe. Review the recipe from beginning to end before you begin the preparation.
- Reviewing the recipe will help to prevent problems that could arise during food preparation and production.
- Weigh dry ingredients for better accuracy, and always use volume to measure liquid ingredients.
- Weigh and measure all ingredients before starting to cook or mix.

Class Discussion Prompt

Question: Can anyone identify the Oatmeal Muffin Squares recipe's meal component(s) contribution?

Answer: One piece (about 2" x 2 %") provides ½ cup fruit and 1.5-ounce equivalent grains.

What questions do you have?



Oatmeal Muffin Squares USDA Recipe for CACFP

These Oatmeal Muffin Squares provide a delectable variety of flavors from blueberries, spices, bananas, and raisins.

CACFP CREDITING INFORMATION

1 piece (about 2" x $2^{3/6}$ ") provides $^{1/6}$ cup fruit and 1.5 oz equivalent grains.

	25 SE	25 SERVINGS		50 SERVINGS	
INGREDIENTS	Weight	Measure	Weight	Measure	DIRECTIONS
Whole-wheat flour	7³/4 OZ	13/4 cups	15½ oz	3½ cups	1 Set aside 1 oz of flour for step 6.
Enriched bread flour	7½ oz	1²⁄₃ cups	15 oz	3⅓ cups	2 Place flour, oats, baking powder, baking soda, cinnamon, nutmeg, and salt in a commercial mixer (batch as needed). Using a paddle attachment, mix on low speed for 1 minute. Leave dry ingredients in mixer. Set aside for step 5.
Oats, rolled, dry	71/4 OZ	23/4 cups	14½ oz	1 qt 1½ cups	
Baking powder		2 tsp		1 Tbsp 1 tsp	
Baking soda		11/2 tsp		1 Tbsp	
Cinnamon, ground		2 tsp		1 Tbsp 1 tsp	



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Page 1 of 3



MODEDIENTO	25 SERVINGS		50 SERVINGS		
INGREDIENTS	Weight	Measure	Weight	Measure	DIRECTIONS
Nutmeg		⅓ tsp		1 tsp	
Salt		¹⁄₂ tsp		1 tsp	
Eggs, whole, frozen, thawed	5 oz	½ cup 2 Tbsp	10 oz	11/4 cups	3 Combine egg and sugar in a large bowl. Stir well.
Sugar	4 oz	¹⁄₂ cup	8 oz	1 cup	
*Bananas, fresh, mashed	1 lb 5 oz	2⅓ cups	2 lb 10 oz	1 qt ¾ cup	Add mashed bananas, yogurt, and vanilla extract. Stir well.
Yogurt, low-fat	12 oz	1½ cups	1 lb 8 oz	3 cups	
Vanilla extract		1 Tbsp		2 Tbsp	
					5 Combine egg mixture with dry ingredients. Mix for 30 seconds on low speed. Beat for 1 minute on medium speed. DO NOT OVERMIX.
Blueberries, frozen, drained	7 oz	1⅓ cups	14 oz	2²⁄₃ cups	6 Coat blueberries with remaining flour. Fold in blueberries and raisins. Stir well.
Golden raisins	5 oz	²/₃ cup	10 oz	1⅓ cups	7 Pour 2 qt (about 4 lb 5 oz) batter into a half steam table pan (12" x 10" x 21/2") lightly coated with pan-release spray.
					For 25 servings, use 1 pan. For 50 servings, use 2 pans.
					8 Bake until golden brown: Conventional oven: 375 °F 45 minutes. Convection oven: 300 °F for 40 minutes.
					9 Portion: Cut each pan 5 x 5 (25 pieces per pan, each piece about 2"x 23/6").



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Page 2 of 3

Oatmeal Muffin Squares

NUTRITION INFORMATION

For 1 piece (about 2" x 23/8").

NUTRIENTS Calories	AMOUNT 171
Total Fat	2 g
Saturated Fat	0 g
Cholesterol	22 mg
Sodium	187 mg
Total Carbohydrate	34 g
Dietary Fiber	3 g
Total Sugars	13 g
Added Sugars included	N/A
Protein	5 g
Vitamin D	5 IU
Calcium	49 mg
Iron	1 mg
Potassium	172 mg
N/A=data not available.	

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USDA Standardized Recipes Project.

	MARKETING GUIDE	
Food as Purchased for	25 Servings	50 Servings
Bananas	2 lb 8 oz	5 lb

NOTES

*See Marketing Guide for purchasing information on foods that will change during preparation or when a variation of the ingredients is available.

Cooking Process #2: Same Day Service.

YIELD/VOLUME		
25 Servings	50 Servings	
About 4 lb	About 8 lb	
About 1 qt/1 steam table pans (12" x 10" x 2½")	About 1 gal/2 steam table pans (12" x 10" x 2½")	



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Page 3 of 3



Mise en Place

Objective

• Demonstrate the correct use of mise en place.

Demonstrate/Discuss

- Organizing yourself and your workspace is an essential skill. This will make kitchen tasks easier to complete and more efficient.
- Discuss *mise en place*, the French phrase that means "everything in place" or "to put in place." This phrase is used to describe the steps needed to prepare for the production process of a dish or menu item.
- Mise en place is a collection of good work habits; it takes planning, effort, and practice to develop any habit. Once these good habits are established, you will be more organized and efficient.
- Mise en place requires a series of six steps.
 - Review the Mise en Place handout in the workbook.

MISE EN PLACE

"TO PUT IN PLACE"



Step 1: Review Recipes & Production Records

- Review recipes several days in advance to identify needed food and equipment
- Look for ways to combine like tasks, identify foods that require time to defrost, and check inventory to ensure you have enough product on hand

Step 2: Prioritize Your Work

- List the sequence of activities needed to complete the recipe
- Pay attention to cook and cool times of food items
- Start with the meal service time and work backwards





Step 3: Collect Tools & Prepare Equipment

- While gathering and collecting equipment and tools, make sure what you need is in good operating condition
- If equipment is malfunctioning, you can adjust the menu and schedule

Step 4: Gather Recipe Ingredients

- Gather ingredients and place them in the proper storage location
- Make sure your production plan includes time for retrieving items throughout the production process





Step 5: Prepare Ingredients

- Double-check the type of cut and the quantity associated with each item
- Ensure food safety by only having foods you are actively working with at your workstation

Step 6: Set Up Your Workstation

- Ensure your workstation coincides with steps one through five
- Limit unnecessary movements by keeping items easily accessible and build an economy of motion





Key Messages

- Plan ahead by reviewing recipes and quantities to prepare several days in advance to identify the foods and equipment needed. This step is especially useful for:
 - Identifying foods that may require extra time or steps, such as planning for long bake times or allowing time to defrost ingredients.
 - Checking inventory levels to ensure you have enough product on hand.
 - Developing a production schedule to prioritize meal preparation steps.
- Identify and gather all of the foods needed for production and place the items in appropriate storage locations.
- Find opportunities to combine tasks.

Class Discussion Prompts

Question: Why is it important to have all of your tools and equipment gathered and prepared for production?

Possible Answers: Gathering all of your equipment beforehand not only ensures a more efficient workflow but also ensures that all of the equipment is present and in working condition before production begins.

Question: Does the step "gather all of your ingredients" require you to bring all of the food items to your workstation before production?

Possible Answers: Not always. This step is to ensure you have all of the ingredients you will need for production, but you do not need to have them all at your workstation. A best practice is to have the items organized and staged for use in temperature-appropriate storage areas.

Question: Why would you not bring all of your ingredients to your workstation before production?

Possible Answers: A few reasons may be preventing time-temperature abuse of items not needed during prep, not overcrowding or cluttering the workstation, or staging foods for batch cooking.

What questions do you have?



Unit of Measurement

Objectives

- Explain the benefits of proper measuring using weight and volume.
- Demonstrate how to properly measure using weight and volume.

Demonstrate/Discuss

- A critical culinary skill is to use the correct "weight" or "volume" listed on a standardized recipe.
- Weigh and measure ingredients correctly to produce the desired recipe results.
- In the U.S. system, the word "ounce" refers to both volume (capacity) and weight. There are "weight ounces" (oz), and there are "fluid ounces" (fl oz).

Volume

- Volume refers to the amount of space an ingredient occupies in a measuring container.
- Volume is expressed in terms such as **teaspoons**, **cups**, and **gallons**.
- You may see volume referred to as "measure," which can be confusing. What is important
 is to identify if the recipe calls for weight or capacity. Capacity is volume and nearly always
 references a liquid product.
- Dried herbs and spices should be measured using volume amounts for best accuracy. However, if the amount is greater than ½ cup, weighing the dried herb or spice will be more accurate.

Weight

- Weight refers to the **heaviness of an ingredient**.
- Weight is expressed in terms such as **ounces** and **pounds**.

Packed vs Aerated Flour Example

- Weight differs from volume.
- We will use an example of packed versus aerated flour to help explain the difference. First, let's define packing and aerating.
 - Packing involves gently pressing the flour to eliminate air pockets, resulting in a denser, heavier weight. This is typically done when filling a measuring cup with flour.
 - Packed flour is ideal for recipes that will result in a compact and chewy texture.
 - Aerating refers to gently stirring flour with a spoon, fork, or whisk to fluff it up. This
 process introduces air into the flour, increasing its volume, and yielding a lighter weight.
 Before measuring, aerate the flour, then use a spoon or scoop to transfer the aerated
 flour into the measuring cup.
 - Aerated flour is typically used for recipes that require a fine and tender crumb resulting in a lighter, delicate texture.

- Let's compare 1 cup of packed flour with 1 cup of aerated flour. Both have 1 cup worth of volume, but the resulting weight is different based on how the flour takes up space.
- One cup of packed flour can weigh as much as 5.3 oz, whereas one cup of aerated flour weighs approximately 4.5 oz. This is a 1.2 oz difference between 1 cup of aerated and 1 cup of packed flour.
- Weighing flour will always be more accurate.

Key Messages

- Weighing ingredients is the most accurate measurement of the ingredient.
 - You do not have to worry if you leveled the flour correctly, packed the brown sugar, or did not put enough shredded cheese on your chef salad because weighing ingredients eliminates measurement errors and speeds up production.
- Volume measurements are best used for liquid ingredients.

Class Discussion Prompt

Question: Would you use a volume or weight measurement for:

- Sugar?
- Cinnamon?
- Oil?
- Peanut butter?

Possible Answers: Volume is best used for liquid ingredients. Weight is best used for solid, semisolid, powdered, or granular ingredients.

What questions do you have?



Weight vs. Volume Demonstration

Demonstrate/Discuss

The instructor will complete the following demonstration.

- If possible, place an electronic and spring scale on the demonstration table.
- Use electronic and spring scales to weigh ingredients and determine correct portion sizes, such as portioned meats and cheeses.
 - Electronic scales are powered by electricity or battery and will tare (or zero out) with the press of a button.
 - Spring scales, such as a dial spring scale, operate without electricity or battery and require turning the adjustment mechanism to tare (or zero out).
- Demonstrate tare by placing a food-grade container or barrier on the scale and either press the tare button on an electric scale or turn the dial to zero on a spring scale.
- Demonstrate how to pick up spring scales by the base. This is important because picking up spring scales by the platform will damage the unit.
- Place a 2-oz portion cup on the scale and tare the scale.
- Ask participants how much they think the 2-oz portion cup of shredded cheese will weigh.
- Fill the portion cup with cheese and show the participants the result.
- The 2-oz portion cup contains about 1 oz of shredded cheese. It is very important to remember that volume and weight are not interchangeable.

Weighing Activity

Introduction:

Let's say you are preparing a granola recipe that calls for 12 ounces of rolled oats. What happens if you confuse this ingredient's weight for volume, and you measure out 1 ½ cups (12 fluid ounces) of rolled oats for the recipe? This activity will illustrate the difference between the accurate weight of rolled oats and an incorrect volume measure.

Directions:

Part 1

- 1. Use the dry ingredient measures to measure 1 ½ cups of rolled oats.
- 2. Weigh the oats.
- 3. Document the weight in the table below.

Item	Volume Measure	Weight
Rolled Oats	1 ½ cups	ounces

Part 2

- 1. Place the 1-quart liquid measuring container on the scale, tare or zero the weight of the container, and add rolled oats to the container until you reach 12 ounces by weight.
- 2. Document the volume of oats in cups in the table below.

Item	Volume Measure	Weight
Rolled Oats	cups	12 ounces

Would the granola recipe turn out as expected if we measured 12 ounces by volume instead of weighing 12 ounces?

Key Message

• When weighing a product, tare (or zero out) the scale before using it.

What questions do you have regarding standardized recipes, mise en place, or units of measure?



Quick Breads and Yeast Doughs

Objectives

- Identify a variety of baking techniques with quick breads and yeast-leavened breads.
- Review ingredients and their functions.

Ingredients and Their Functions

Quick breads are prepared with flour, leavening agents, eggs, sugar, salt, fats, and liquids. Each ingredient plays a part in the overall texture and flavor of the finished product.

- Flour provides bulk and structure to most baked products.
- Sugar adds sweetness and tenderness, provides crust color, retains moisture, and acts as a creaming agent and food for yeast.
- Fats add moistness and richness, retain quality, add flavor, and assist with leavening and flakiness.
- Liquids (milk, buttermilk, sour cream, juice, or fruit purees) add moisture to activate gluten in the flour and contribute to texture, flavor, and crust color.
- Eggs add structure, color, and moisture, and provide fat, flavor, richness, and leavening.
- Chemical leavening agents such as baking soda and baking powder create rise and volume during baking, resulting in lighter textures.
- Salt controls the rise and adds flavor.

Yeast-leavened breads are a combination of flour, yeast, water, and salt.

- Flour, the main component in bread, provides structure and substance.
- Water hydrates the flour.
- Yeast provides leavening.
- Salt strengthens gluten, holds water and carbon dioxide, adds flavor, and inhibits yeast growth.

Leavening Agents

- Chemical leavening agents produce carbon dioxide through a chemical reaction with other ingredients in the recipe. This reaction produces air pockets, also known as an open crumb structure, causing the dough or batter to lift as it heats up. Examples of chemical leavening agents are baking soda and baking powder.
 - Baking soda requires acid to react and produce carbon dioxide gas. Recipes that call for only baking soda will usually have an acid ingredient such as lemon juice, buttermilk, yogurt, sour cream, or vinegar.
 - Baking powder is a combination of baking soda and an acid (or two acids if labeled "double acting"). When baking powder is hydrated, carbon dioxide gas is produced. Double-acting baking powder will produce gas once with hydration, and then again while baking/heating.
- Yeast is a biological leavening agent that also produces carbon dioxide gas to create lift.
 Fermentation is the chemical reaction in which yeast produces carbon dioxide. Yeast consumes the carbohydrates in the dough and releases carbon dioxide gas and flavor compounds.

- Active dry yeast is a type of granular dry yeast that must be hydrated in warm water before mixing into other ingredients. Usually, sugar is added during the hydration process, which is called "proofing the yeast," and the mixture may become foamy as the yeast activates, ferments the sugar, and releases carbon dioxide gas.
- Instant dry yeast is a granular dry yeast that can be mixed in with the dry ingredients of a dough recipe without needing to be hydrated first. This type of yeast becomes active as soon as it contacts moisture in the dough. If using instant dry yeast, the yeast proofing step is unnecessary, saving time for busy bakers.

Quick Bread Mixing Methods

Mixing doughs and batters involves more than just blending ingredients. Choosing the correct mixing method helps to control hydration, the development of air cells, the development of gluten, and overall product quality.

Mixing Method Name	Description
Muffin method	This method combines the wet ingredients in one bowl and the dry ingredients in a second bowl before mixing. In addition to muffins, this method is used for preparing pancakes, crepes, and waffles.
Creaming method	This method combines the fat and sugar which is beaten to add air thus lightening and increasing the volume. The eggs are emulsified into the creamed fat and sugar, and the dry ingredients are then folded into the batter. This method results in a moist, tender product that is used for quick breads.
Biscuit method	This method sifts together the dry ingredients including flour, salt, sugar, and baking powder, then cuts in the fat. The mixture is folded together with the liquid producing a dense yet flakey texture. This method is used for biscuits and scones.

Muffin method- used for muffins, cornbread, pancakes, loaf-type guick breads, and waffles.

The purpose of the muffin mixing method is to develop as little gluten as possible, which keeps quick breads light and tender.

- 1. Combine dry ingredients in a mixing bowl (flour, salt, baking powder, baking soda, spices).
- 2. Combine wet ingredients in another mixing bowl (eggs, milk, liquid oil or melted butter, vanilla extract, and sugar). Adding the sugar here helps it to dissolve and incorporate into the final product.
- 3. Add the wet ingredients to the dry ingredients.
- 4. Fold the dry ingredients into the wet ingredients by drawing the mixing spoon through the center of the mixture, then lift the ingredients over the mixture along one side of the bowl, turning the bowl 90 degrees with each fold. Continue folding just until the dry ingredients are incorporated. Overmixing will result in too much gluten development causing tunnels (gas bubbles) in the finished product.
- 5. Fold in inclusions such as berries, nuts, fruits, cheese, etc.
- 6. Use a scoop (disher) to portion the batter into a muffin tin.
- 7. Bake immediately while the leavening is most active.

Creaming method – used for some quick breads that call for room-temperature butter or margarine.

The creaming method blends the softened butter (or other solid fat) with the sugar and mixes it on medium speed. This process introduces air pockets into the fat and sugar mixture, which contribute to rise during baking, and to a light texture in the finished product.

- 1. Place softened butter and sugar in a mixing bowl or mixer.
- 2. Beat on medium speed with a hand mixer or the paddle attachment if using a stand mixer, until soft and lighter in color.
- 3. Add eggs one at a time and combine thoroughly before adding the next egg.
- 4. In a separate bowl, combine dry ingredients (flour, salt, baking powder, baking soda, spices).
- 5. In a separate bowl, combine the remaining wet ingredients (milk, vanilla, etc.).
- 6. Add ⅓ of the dry ingredients to the butter and egg mixture and mix to combine.
- 7. Add ½ of the wet ingredients and mix to combine.
- 8. Add ½ of the remaining dry ingredients and mix to combine.
- 9. Add the remaining wet ingredients and mix to combine.
- 10. And the last of the dry ingredients and mix to combine.
- 11. Gently fold in inclusions such as berries, nuts, fruits, cheese, etc.
- 12. Transfer batter to prepared pans for baking.

Biscuit method – used for biscuits and scones.

The biscuit method blends chilled solid fat (butter) into the dry ingredients before the wet ingredients are added. The pieces of solid fat in the final dough will create flaky pockets once the product is baked.

- 1. Measure dry ingredients into a bowl.
- 2. Cut chilled solid fat (butter) into ½-inch cubes.
- 3. Place cubes of fat into the dry ingredients and toss to coat the fat. Use your fingers or a pastry blender to cut solid fat into the dry ingredients. Continue cutting fat until small pieces the size of peas have formed. This can also be done quickly in a food processor by pulsing the dry ingredients and solid fat together.
- 4. Combine liquid ingredients in another bowl.
- 5. Add liquid ingredients to the dry ingredients and gently stir until the dough begins to come together.
- 6. Transfer the dough and any remaining dry ingredients to a floured work surface. Gently knead the dough by patting the dough flat and fold in half. Turn the dough ninety degrees and repeat the process, ensuring dry ingredients and pieces of fat are folded into the dough. Do not over-knead the dough.
- 7. Cut into squares with a knife or circles with a biscuit cutter.
- 8. Transfer to a baking pan lined with parchment paper and bake.

Yeast Doughs

Yeast doughs are leavened with yeast to make a variety of bread types. Yeast breads require longer mixing times to develop gluten and require longer fermentation times to rise and develop flavor. The ingredients and the preparation process categorize yeast breads. These categories include lean dough, rich dough, and laminated dough.

- Lean dough (flour, water, salt, no or very little additional fat or oil)
 - Hard-crusted breads like French or Italian style breads or rolls
 - Pizza crust
 - Sourdough bread
 - Bagels
 - Naan
- Rich dough (flour, water, salt, fat, egg, milk)
 - Brioche
 - Dinner rolls
- Laminated dough (dough made of flour, water, salt, egg, and milk, which is rolled out and layered with butter)
 - Croissants
 - Pastries
 - Puff pastry dough

A goal of many types of yeast doughs is to develop enough gluten in the dough to provide structure that will trap pockets of air and cause lift during baking. Many bakers will perform a "window pane test" at the end of mixing. For the test, a small amount of dough is stretched into a square, and if the dough stretches to the point of being so thin (without breaking) that light can be seen through the membrane of dough, this is an indication that gluten has been sufficiently developed.

Twelve Basic Steps to Yeast Dough Production

- 1. Scaling ingredients (weighing ingredients)
- 2. Mixing
- 3. Bulk fermentation (first rise)
- 4. Folding or punching (puts yeast cells into contact with carbohydrates again)
- 5. Scaling or portioning of dough
- 6. Rounding (giving the dough some initial shape)
- 7. Benching (rests and relaxes the dough for final shaping)
- 8. Makeup and panning (shaping and panning the final product)
- 9. Proofing (rise before baking)
- 10. Baking
- 11. Cooling
- 12. Storing



Time: 20 minutes

Objectives:

- Review culinary techniques used for the preparation of a variety of quick breads and yeast breads.
- Discuss food safety practices when preparing baked goods.

Demonstrate/Discuss

- Demonstrate quick bread mixing method.
- Review quality preparation benchmarks (advanced preparation, preparing in bulk, effect of cook time).
- Discuss proper holding of quick breads and yeast-leavened breads.
- Review food safety guidelines.

Quick Bread Mixing Method

- Demonstrate the muffin mixing method using the recipe below.
- Tunneling is the development of elongated holes inside the muffin, which is caused by overmixing the batter.
- Discuss tunneling if dough is overmixed.

Basic Muffin Recipe

1 cup all-purpose flour

1 cup whole wheat flour

1 Tbsp baking powder

½ tsp salt

1/4 cup granulated sugar

2 eggs, slightly beaten

1 cup low-fat milk

1/4 cup vegetable oil

Optional added flavoring: 1 cup blueberries, fresh or frozen

Place the dry ingredients into a mixing bowl and whisk to combine. Place liquid ingredients into another mixing bowl and whisk to combine. Add the wet ingredients to the dry ingredients and fold to combine. Gently fold in blueberries if using. Do not overmix, the batter will be lumpy. Use a scoop to portion batter into a muffin pan. Bake in a preheated 350°F oven for 25 minutes. Cool for 5 minutes before removing from the pan. Serve warm or at room temperature. Muffins may be frozen for up to 3 months. Allow to thaw overnight in the refrigerator, then bring to room temperature or warm up for service.

TIP: Reserve 1-2 tablespoons of the flour and toss with the blueberries before incorporating into the batter. This will reduce color bleeding in the muffin, and it will help suspend the berries in the batter (preventing the berries from sinking).

Review Quality Preparation Benchmarks

- It is best to prepare and serve baked items consistent in shape and color.
- Prevent tunneling in muffins or quick breads by not overmixing the batter. Mix until the dry ingredients are just incorporated. The batter may be lumpy.
- Quick breads should have a moist and tender crumb.
- To test for doneness, insert a toothpick or skewer into the center of the quick bread, and remove the toothpick or skewer. If the toothpick or skewer is clean (no signs of uncooked batter) the product is done.

Proper Holding of Quick Breads and Yeast Breads

- Cooling moisture continues to escape after the item is removed from the oven. For this reason, cool the product completely before storing it.
- Storing store in an air-tight container or wrap with plastic wrap for short-term storage.
- Freezing helps maintain quality for a longer period.
- Defrosting defrost at room temperature for best results. Frozen yeast breads may be warmed in the oven before service.

Food Safety

- Follow the CCPs.
- Store flour, baking mixes, eggs, and uncooked dough separately from ready-to-eat foods.
- Keep separate the measuring, mixing, and handling of unbaked batter or dough from cooling, serving, or packaging of baked products.
- Use food service gloves when handling ready-to-eat food.
- For more information, refer to the **Food Safety Fact Sheet: Cooking Foods** handout.

Key Messages

- After baking, breads and other baked goods are considered Ready-to-Eat, and staff should wear gloves or use tongs when handling them.
- Quality products are dependent on proper measuring, mixing techniques, and using proper equipment and ovens calibrated to the correct temperature.

Class Discussion Prompts

Question: What potential challenges and solutions do you see with baking from scratch?

Possible Answers: Don't have the equipment needed, learning curve, better tasting product, aroma filling building

What questions do you have?



Time: 105 minutes

Objective:

Apply preparation techniques with a variety of quick breads.

Discuss

- During the Team Cooking Lab, you will apply the skills and knowledge presented in this training for making scratch-prepared baked goods.
- The recipes for today include a variety of quick breads. Due to time constraints, yeast-leavened breads will not be prepared.
- Review recipes as a group and briefly describe the recipes.
- For more information, refer to the following Food Safety Fact Sheets:
 - Handwashing
 - Washing Fruits and Vegetables
 - Cooking Foods

Team Instructions

The Team Cooking Lab is an opportunity to practice new skills, so take care in preparing recipes without rushing through. Be intentional with choices and movements. Most of all, practice food safety, ask questions, build your skillset, and have fun.

- Break into previously assigned teams.
- Each team is assigned a number, 1 through 6, that corresponds with the recipe assignments.
- Review assigned recipes as a team and divide the workload among team members.
- Create a mise en place list and bring it to the instructor for review before preparing the recipes. Your mise en place list should include:
 - Recipe titles
 - Ingredients needed
 - Ingredient amounts
 - Equipment needed
 - Preparation steps and assignments (who will complete each task)
- You will find shared pantry ingredients at a centralized weighing/measuring station. Please do not take shared bulk ingredients to your workstation.
- Teams may begin preparing the recipes after the instructor reviews your mise en place list.

Team Cooking Lab Recipes

Team	1	2	3	4	5	6
Recipe 1	Raspberry Drop Biscuit	Whole Wheat Buttermilk Biscuits	Pumpkin Muffin Squares	Baked Hush Puppies	Banana Bread Squares	Pear Breakfast Gingerbread
Recipe 2	Savory Ham and Cheese Muffin	Breakfast Muffins	Cornbread	Oatmeal Muffin Squares	Apple Cinnamon Crumb Muffins	Corn and Wheat Muffins

Instructor's Note: Circulate the training space to observe and mentor participants as they prepare and execute their assigned recipes.

Food Safety Fact Sheet

Handwashing

INTRODUCTION

Handwashing is the single most important practice in any school nutrition program. School nutrition employees can improve the safety of the food they serve by washing their hands frequently, correctly, and at the appropriate times.

HERE ARE THE FACTS

Foodborne illnesses are transmitted by food handlers that contaminate food and food contact surfaces. Individuals who handle food when they have a foodborne illness, gastrointestinal illness, infected lesion, or are around someone who is ill can pass along those illnesses. Individuals can simply touch a surface that is contaminated with a bacteria or virus and pass that along to others. Handwashing minimizes the risk of passing along bacteria or viruses that can cause foodborne illnesses. Follow state or local health department requirements.

APPLICATION

It is important to know how and when to wash hands and exposed areas of the arms.

How?

- Wet hands and forearms with warm running water at least 100 °F and apply soap.
- Scrub lathered hands and forearms, under fingernails, and between fingers for at least 10–15 seconds. Rinse thoroughly under warm running water for 5–10 seconds.
- Dry hands and forearms thoroughly with single-use paper towels.
- · Dry hands using a warm air hand dryer.
- Turn off water using paper towels.
- Use paper towel to open door when exiting the restroom.

When?

• Beginning to work, either at the beginning of shift or after breaks.

Before

- Moving from one food preparation area to another
- Putting on or changing disposable gloves

After

- ♦ Using the toilet
- ♦ Sneezing, coughing, or using a handkerchief or tissue
- ♦ Touching hair, face, or body
- ♦ Handling raw meats, poultry, or fish





- ♦ Eating, drinking, or chewing gum
- Clean up activity such as sweeping, mopping, or wiping counters
- ♦ Touching dirty dishes, equipment, or utensils
- ♦ Handling trash
- ♦ Handling money
- Any time that hands may have become contaminated

Remember, follow state or local health department requirements.

References

- U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2015). Food safety in schools. University, MS. Author.
- U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2016). HACCP-based standard operating procedures: Washing hands. Retrieved from http://www.nfsmi.org/ResourceOverview.aspx?ID=75
- U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2004). Wash your hands: Educating the school community. University, MS. Author. U.S. Department of Health and Human Services Public Health Services, Food and Drug Administration. (2013). FDA food code. Retrieved from http://www.fda.gov/food/guidanceregulation/
- retailfoodprotection/foodcode/ucm374275.htm

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Food Safety Fact Sheet Washing Fruits and Vegetables

INTRODUCTION

Fresh fruits and vegetables can be contaminated either when they are purchased or if they are handled incorrectly. Thorough washing of fruits and vegetables will minimize the risk of serving a contaminated product to customers.

HERE ARE THE FACTS

Fresh fruits and vegetables can be exposed to harmful bacteria because of growing conditions and handling by humans. Some fruits such as cantaloupes have a very rough rind that can trap dirt and bacteria. Because these products are not cooked, they can cause foodborne illness if not handled properly.

APPLICATION

Follow safe practices when handling fresh fruits and vegetables.

- · Wash hands using the proper procedure before handling fresh fruits and vegetables.
- Wash, rinse, sanitize, and air dry all food contact surfaces, equipment, and utensils that will be in contact
 with fresh produce. This includes cutting boards, knives, and sinks. Always use sinks designated for
 food preparation.
- Follow manufacturer's instructions for proper use of chemicals. For example, using sanitizers at too high a concentration may cause contamination of the produce.
- Wash all raw fruits and vegetables thoroughly before combining with other ingredients, including the following:
 - Unpeeled fresh fruit and vegetables that are served whole or cut into pieces, and
 - ♦ Fruits and vegetables that are peeled and cut to use in cooking or served ready-to-eat.
- Wash fresh produce vigorously under cold running water or by using chemicals that comply with the FDA Food Code or your state or local health department. It is not recommended to rewash packaged fruits and vegetables labeled as being previously washed and ready-to-eat.
- Remove any damaged or bruised areas of the fruits and vegetables.
- Label, date, and refrigerate fresh-cut items.
- Serve cut melons within 7 days if held at 41 °F or below.
- Do NOT serve raw seed sprouts to highly susceptible populations such as preschool-age children.

Monitor handling procedures for fresh fruits and vegetables.

- · Check fruits and vegetables visually to make sure they are properly washed, labeled, and dated.
- · Check daily the quality of fruits and vegetables in cold storage.
- · Check labels and use-by dates.





Washing Fruits and Vegetables cont.

Take corrective action if fresh fruits and vegetables are not handled properly.

- · Remove unwashed fruits and vegetables and wash them before they are served.
- · Label and date fresh cut fruits and vegetables.
- · Discard cut melons after 7 days.

Remember, follow state or local health department requirements.

U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2006). Developing a school food safety program. University, MS. Author.

U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2015). Food safety in schools. University, MS. Author.
U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2016). HACCP-based standard operating procedures: Washing fruits and vegetables. Retrieved from http://www.

nfsmi.org/ResourceOverview.aspx?ID=75
U.S. Department of Health and Human Services Public Health Services, Food and Drug Administration. (2013). FDA food code. Retrieved from http://www.fda.gov/food/guidanceregulation/ retailfoodprotection/foodcode/ucm374275.htm

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Food Safety Fact Sheet Cooking Foods

INTRODUCTION

Cooking is a critical control point, or a point at which reaching proper internal temperatures can help ensure that a food is safe to eat. Cooks must know the proper temperatures for cooking food, monitor internal cooking temperatures, and record cooking temperatures.

HERE ARE THE FACTS

The appropriate temperature for cooking foods is based on temperatures that will kill bacteria associated with that specific food. That is why, for example, poultry products have a higher cooking temperature than beef. It is important to know the temperature requirements for menu items used in your school nutrition program.

APPLICATION

Cook foods to the appropriate internal temperature.

- · 135 °F for 15 seconds
 - ♦ Fresh, frozen, or canned fruits and vegetables cooked for hot holding
 - ♦ Ready-to-eat food that has been commercially processed
- · 145 °F for 15 seconds
 - ♦ Beef, pork, and seafood
- 155 °F for 15 seconds
 - ♦ Ground products containing beef, pork, or fish
 - ♦ Fish nuggets or sticks
 - ♦ Cubed or Salisbury steaks
 - ♦ Eggs cooked for hot holding
- 165 °F for 15 seconds
 - ♦ Poultry
 - ♦ Stuffed beef, pork, or seafood
 - ♦ Pasta stuffed with beef, eggs, pork, or seafood such as lasagna or manicotti

Monitor cooking temperatures.

- Check food temperatures with clean, sanitized, and calibrated thermometer.
- · Avoid inserting the thermometer into pockets of fat or near bones when taking internal temperatures.
- · Take at least two internal temperatures from each batch of food.





- Insert thermometer into the thickest part of the food, which usually is in the center.
- · Record the temperature and the time the temperature was checked.

Take corrective action if appropriate temperatures are not met, which usually means that cooking is continued until the temperature at the thickest part of the food is appropriate.

Remember, follow state or local health department requirements.

References

U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2015). Food safety in schools. University, MS. Author.
U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2016). HACCP-based standard operating procedures: Cooking time/temperature control for safety foods. Retrieved

from http://www.nfsmi.org/ResourceOverview.aspx?ID=75
U.S. Department of Agriculture, Food and Nutrition Service, & Institute of Child Nutrition. (2005). Thermometer information resource. University, MS. Author.

U.S. Department of Health and Human Services Public Health Services, Food and Drug Administration. (2013). FDA food code. Retrieved from http://www.fda.gov/food/guidanceregulation/ retailfoodprotection/foodcode/ucm374275.htm

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Time: 25 minutes

Objective:

Evaluate the quality and usability of prepared baking recipes.

Discuss/Evaluation

- Set up a serving line with plates, forks/spoons, napkins, and all of the finished products and serving utensils.
- Participants may sample the final dishes.
- Complete the **Recipe Evaluation Form** as you try the food items.
- Rate each recipe based on appearance, taste, texture, and overall quality.
- Note whether you would incorporate this recipe on the menu, considering if the item would appeal to program participants. If not, indicate why not.
- Volunteers will be asked to share their feedback with the group.
- Turn in evaluation forms once complete.
- Clean up workstations.

51

Recipe Evaluation Form

Instructions: Rate the following recipes on a scale of 1 to 5 (1 = did not like at all; 5 = enjoyed very much).

Recipe		Appearance	eara	nce			Te	Taste				je L	Texture	4)		Overall Quality	<u></u>	Qua	<u>l</u>	Would into you	you inc ır ment	Would you incorporate this recipe into your menu? Why or why not?	ipe ot?
																				YES/NO	ON/	EXPLAIN	
Raspberry Drop Biscuit	_	7	က	4	5	_	7	က	4	2	-	7	თ	4	5	2	(C)	4	2				
Savory Ham and Cheese Muffin	_	~	က	4	2	_	8	က	4	2	_	8	က	4	5 1	2	(n)	4	5				
Whole Wheat Buttermilk Biscuits	_	7	က	4	5	_	7	က	4	2	_	2	ر س	4	5 1	- 2	n	4	5				
Breakfast Muffins	_	7	က	4	2	_	7	က	4	2	-	7	, დ	4	5 1	2	က	4	5				
Pumpkin Muffin Squares	-	7	က	4	5	_	7	က	4	2	_	2	ر س	4	5 1	2	(C)	4	5				
Cornbread		2	3	4	2	_	2	3	4	2	_	2	3 ,	4	5 1	1 2	3	4	2				
Baked Hush Puppies	_	7	က	4	2	_	2	က	4	2	-	2	, က	4	5 1	7	က	4	2				
Oatmeal Muffin Squares	-	7	က	4	5	_	7	က	4	2	_	7	, დ	4	5 1	2	m	4	5				
Banana Bread Squares		7	က	4	5	<u></u>	2	က	4	2	_	2	ر س	4	5 1	2	က	4	2				
Apple Cinnamon Crumb Muffins	1	2	3	4	5	_	2	3	4	5	_	2	3 '	4	5 1	1 2	3	4	2				
Pear Breakfast Gingerbread	1	2	3	4	5	_	2	3	4	5	_	2	3 ,	4	5 1	1 2	3	4	2				
Corn and Wheat Muffins	~	2	3	4	2	-	2	3	4	2	_	2	8	4	5 1	1 2	8	4	2				

Comments/Recommendations:



Time: 10 minutes

Objective:

• Develop an action plan for implementing the skills learned during the training.

Application Action Plan

Complete this worksheet. When complete:

- Share what you wrote, and as a group, offer suggestions for eliminating any perceived barriers mentioned.
- Share a key takeaway and how it will be implemented in your program.

List the most useful knowledge and/or skills you gained during this training.
N/le at a real atoms you constalled to construct between learned 2
What are some steps you can take to apply what you have learned?
What barriers do you think you might face at your job when trying to apply what you have learned at this training?



Time: 10 minutes

Discuss

- Today, we have discussed important concepts related to culinary skills and the many benefits associated with choosing, preparing, and serving scratch-made baked goods.
- Thank you for your participation during the training today. I hope you found it beneficial and gained knowledge and skills that will assist you in preparing and serving meals for the children in your program.
- We know that learning is enhanced if we are given a chance to personally relate to the material and how we might apply it.

Additional Resources

The ICN has numerous other training resources available online at www.theicn.org, including access to the Child Nutrition Recipe Box, Child Nutrition Sharing Site, Culinary Institute of Child Nutrition resources, and the ICN Help Desk for further technical assistance.



Instructor's Note: Share the Course Evaluation link and QR code with the participants.

Please take about 5 minutes to complete the course evaluation. We thank you for helping us evaluate and improve the ICN CACFP Culinary Trainings. Complete the course evaluation using the following instructions:

- Using your smartphone, open the camera app.
- Point your camera at the QR code. Your browser should open with the ICN course evaluation.
- Read the instructions on the screen. Then, read each question carefully and select the best answer.

End of Class Prompts

- Please make sure you have signed the sign-in sheets to receive the training certificates.
- Thank you for attending and participating in this training on baking.



- Academy of Nutrition and Dietetics. (2023, September 26). *Healthy baking alternatives*. https://www.eatright.org/food/food-preparation/cooking-tips/healthy-baking-alternatives
- Colorado Department of Public Health and Environment Child and Adult Care Food Program (2022, July 27). *Healthier Meals Initiative Culinary Training Program*. https://cdphe.colorado.gov/child-and-adult-care-food-program-cacfp/colorados-healthier-meals-initiative
- Culinary Institute of America. (2011). The professional chef (9th ed.). New Jersey: John Wiley & Sons, Inc.
- Gisslen, W. (2018). Professional cooking (9th ed.). New Jersey: John Wiley & Sons, Inc.
- Institute of Child Nutrition. (n.d.). Child nutrition recipe box. https://theicn.org/cnrb/
- Institute of Child Nutrition. (2016). *Cooking foods*. https://theicn.org/icn-resources-a-z/food-safety-fact-sheets/
- Institute of Child Nutrition. (2016). *Handwashing*. https://theicn.org/icn-resources-a-z/food-safety-fact-sheets/
- Institute of Child Nutrition. (2016). *Washing fruits and vegetables*. https://theicn.org/icn-resources-a-z/food-safety-fact-sheets/
- Institute of Child Nutrition. (2015). *Competencies, knowledge, and skills for child care providers in CACFP operations*. University, MS: Author. https://theicn.org/icn-resources-a-z/competencies-knowledge-and-skills-for-child-care-providers-in-cacfp-operations/
- Jaworski, S. (2019). *Weight vs. volume measurement video*. Joy of Baking. https://www.joyofbaking.com/WeightvsVolumeMeasurement.html
- Oldways Whole Grains Council. (n.d.). *Improve your baking with whole grains*. https://wholegrainscouncil.org/resources/improve-your-baking-whole-grains
- University of Colorado Colorado Springs. (n.d.). *Baking with whole grains*. https://swell.uccs.edu/sites/g/files/kjihxj2576/files/inline-files/Baking%20with%20Whole%20Grains.pdf
- U.S. Department of Agriculture, Food and Nutrition Service. (2022, April 18). *Crediting handbook for CACFP*. https://www.fns.usda.gov/tn/crediting-handbook-child-and-adult-care-food-program
- U.S. Department of Agriculture, Food and Nutrition Service. (2023). *Crediting tip sheets in child nutrition programs*. https://www.fns.usda.gov/tn/crediting-tip-sheets-child-nutrition-programs
- U.S. Department of Agriculture, Food and Nutrition Service. (2023). *Crediting updates for child nutrition programs: Be in the know! Webinar series*. https://www.fns.usda.gov/tn/crediting-updates-child-nutrition-programs-be-know-webinar-series
- U.S. Department of Agriculture, Food and Nutrition Service. (2019). *Professional standards*. https://www.fns.usda.gov/school-meals/professional-standards

- U.S. Department of Agriculture, Food Safety and Inspection Service. (2006). *Keep food safe! Food safety basics*. https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/steps-keep-food-safe
- U.S. Department of Agriculture and U.S. Department of Health and Human Services. (2020, December). Dietary Guidelines for Americans, 2020-2025. 9th Edition. https://www.dietaryguidelines.gov/

Appendix



Competencies, Knowledge, and Skills for Child Care Providers in CACFP Operations Functional Area 1: Administration

This functional area is defined as the process of providing organizational leadership through the management of financial and human resources (including accountable management of finances and the provision of policy and procedures guidance).

Core Competencies

• 1.8 Manages all operations associated with menu development and meal preparation.

Professional Standards and Key Area Codes

The following USDA Professional Standards are for school nutrition professionals who also operate CACFP programs.

Key Area Codes

- 1 Nutrition
- 2 Operations

Professional Standards Codes

Menu Planning - 1100

Employee will be able to effectively and efficiently plan and prepare standardized recipes, cycle menus, and meals, to meet all Federal child nutrition program requirements, including the proper meal components.

1110 – Plan menus that meet USDA nutrition requirements for reimbursable meals, including calculating meal components.

Food Production – 2100

Employee will be able to effectively utilize food preparation principles, production records, kitchen equipment, and food crediting to prepare foods from standardized recipes, including those for special diets.

- 2110 Understand and effectively prepare food using a standardized recipe.
- 2130 Develop culinary skills necessary for meal preparation.

Serving Food – 2200

Employee will be able to correctly and efficiently serve food portions to meet all USDA CACFP meal pattern requirements and encourage healthy food selections including those for special diets.

2230 – Serve food to maintain quality and appearance standards.

2 Culinary Terms

A la carte – Food items that can be purchased as separate items rather than part of a reimbursable meal

Acidulation – The process of adding citric or acetic acid to water, used to preserve color, to clean aluminum, or to soak kidneys and game.

Additives – Substances added to many foods to prevent spoilage or to improve appearance, texture, flavor, or nutrition; they might be synthetic materials copied from nature or naturally occurring substances

Aerate – To incorporate air into a mixture by sifting or mixing

Al Dente – Italian term meaning "to the tooth"; used to describe mainly pasta that is cooked until a slight resistance when bitten into

Aroma – The sensations of smell as interpreted by the brain

Aromatics – Plant ingredients, such as onion, garlic, herbs, and spices, used to enhance the flavor and fragrance of food

Back-loading spices – Adding seasoning and spice at or near the end of the cooking process

Bake/Roast – Dry-heat cooking method in which foods are surrounded by hot, dry air in a closed environment

Baste – To moisten foods using their natural juices periodically during cooking

Batch cook – Prepare a menu item in small amounts, so it will be at its peak quality when placed on the service line

Blanching – To briefly submerge in simmering water, boiling water, or fat to assist in the preparation of foods

Blend – The process of combining two or more ingredients so that they lose their individual characteristics and become smooth and uniform

Blooming – A cooking technique where spices are gently heated in oil or fat to intensify their flavors and aromas

Boil – The cooking of food by immersion in water that has been heated to near its boiling point (212 °F or 100 °C)

Bound salad – A salad comprised of cooked meats, poultry, fish, shellfish, pasta, or potatoes combined with a dressing

Braise – A combination cooking method that first sears the food at a high temperature and then finishes it in a covered pot at a low temperature while sitting in some amount of liquid

Broil – A method of cooking using direct heat, which is much like grilling except that the heat source is over the food instead of under it

Brown –The process of partially cooking the surface of meat to help remove excess fat and give the meat a brown color crust and flavor through various browning reactions; ground meat will frequently be browned before adding other ingredients and completing the cooking process

Brunoise – The finest dice and is derived from the julienne

Calorie – A measure of energy

Caramelize – The process of browning sugar in the presence of heat

Carryover cooking – When food retains heat and continues to cook even after being removed from the source of heat

Chef knife – A large, general-purpose kitchen knife, usually 8" to 10" long, that has a blade curving upward along its length and ending in a narrow point

Chiffonade – A preparation of finely sliced or shredded leafy vegetables or herbs

Chop – To cut into pieces of roughly the same size

Coagulation – The irreversible transformation of proteins from a liquid or semi-liquid state to a drier, solid state

Coring – The process of removing the seeds or pit from fruit or vegetable

Cross-contact – Occurs when an allergen accidentally transfers from one food to another food or from a food contact surface to a food that does not contain the allergen

Cross-contamination – The transfer of pathogens such as bacteria, viruses, and parasites from hand-to-food, food-to-food, or equipment and contact surfaces-to-food (You are probably most familiar with this type of contamination.)

Culinary acid – A substance that neutralizes a base (alkaline) in a liquid solution; includes foods like citrus juice, vinegar, and wine that have a sour or sharp flavor; acids have a P.H. of less than 7

Danger zone – The temperature range in which bacteria grow rapidly—41 °F to 135 °F; bacteria can double in number in as little as 20 minutes

Degrease – To remove the fat from the surface of a hot liquid such as a sauce, soup, or stew, also known as defatting or fat trimming

Dice – To cut ingredients into small cubes (1/8" for small or fine, 1/4" for medium, 3/4" for large is standard)

Dietary Guidelines for Americans – Provides information to help Americans make healthy food choices; based on the current body of nutrition science, the Dietary Guidelines is a go-to resource for policymakers, public health professionals, and other experts working to improve the health of individuals, families, and communities across the nation

Dredging – To coat a food item in flour or ground crumbs before frying or sautéing

Dry heat cooking – Cooking with the circulation of hot air or direct contact to transfer heat to food without the use of moisture, steam, broth, water, or any type of liquid; methods include grilling, pan-frying, broiling, baking, and deep-fat frying

Emulsion – A uniform mixture of two unmixable liquids, such as oil and water, are forced into a uniform distribution

Enzymatic browning – An oxidation (see Oxidation) reaction that takes place in some foods, mostly fruit and vegetables, causing the food to turn brown

Evaporation – Heated water that is turned into a gas and vaporizes

Fabrication – The process of slicing and dicing food, often used to describe slicing or dicing fresh fruits and vegetables

Fat – One of the basic nutrients used by the body to provide energy; also provides flavor to food and gives a feeling of fullness

Fiber – A plant-based nutrient that is sometimes called roughage or bulk; a type of carbohydrate but, unlike other carbs, cannot be broken down into digestible sugar molecules

FIFO – An inventory system that ensures that items that are purchased first are used first. When new items arrive, they must be placed behind the older items on the storage shelves, cooler, or freezer

Flavonoids – Plant pigments that dissolve readily in water, found in red, purple, and white vegetables such as blueberries, red cabbage, and beets

Flavor – The sensory impression of a food or other substance, determined mainly by the chemical senses of taste and smell

Fold – The process of blending a light ingredient, such as beaten egg whites, into a heavier ingredient by lifting from underneath with a spatula or spoon

Front-loading spices – Adding seasoning and spice at or near the beginning of the cooking process

Garnish – An edible decoration or accompaniment to a prepared dish to increase eye appeal

Grate – The process of transforming solid, firm food items into small pieces by rubbing the item against a grating instrument.

Honing Steel – A kitchen tool that is mounted on the handle is a rounded stick-like rod—typically made from steel, ceramic, or diamond-coated steel. They are commonly used to straighten the edge of a knife as it is dragged along the rod from heel to tip in a downward slicing motion.

Julienne – A culinary knife cut in which the food item is cut into long thin strips, similar to matchsticks

Knead – A method of mixing pliable dough by stretching, folding, and pushing to form gluten in the flour

Maillard reaction – A chemical reaction between an amino acid and a reducing sugar, usually requiring the addition of heat; like caramelization, it is a form of non-enzymatic browning

Marinade – A liquid, such as vinegar or oil, with spices or other flavorings added to it that is made for the purpose of soaking a food in it to add flavor or to tenderize

Marinate – The process of soaking foods in seasoned and acidic liquid before cooking for hours or days, adding flavor to the food

Melt – To become altered from a solid to a liquid state, usually by heat

Mince – To cut into very small pieces where uniformity or shape is not important

Mirepoix – A French term used to describe a combination of chopped flavorful vegetables used to flavor stocks, soups, braises, and stews; contains two parts onion to one part each of celery and carrot

Mise en place – Meaning "everything in place"; refers to the preparation and organization of ingredients and equipment

Mix – To combine, join, blend, or put together two or more things

Moist heat cooking – Cooking with water, other liquid, or steam to transfer heat to food; methods include poaching, simmering, boiling, braising, stewing, pot roasting, and steaming

Nutrient analysis – Calculated nutrient content of foods, recipes, and/or menus

Nutrient-dense – Food that is high in nutrients but relatively low in calories; contains vitamins, minerals, complex carbohydrates, lean protein, and healthy fats

Nutrients – A substance used by an organism to survive, grow, and reproduce

Oxidation – A chemical reaction that takes place in some foods, mostly fruit and vegetables, causing the food to turn brown

Parboiling – To partially cook a portion of food in simmering/boiling water; similar to blanching but cooked for longer

Parcooking – Partially cooking food by any cooking method

Paring knife – A thin-bladed knife intended for coring and paring (peeling) fruit such as apples as well as slicing small ingredients; it is majorly used for detailed and controlled cutting

Pasteurization – The process of heating foods, such as milk, cheese, yogurt, beer, fruit ciders, wine, and other foods to a temperature high enough and for a sufficient period to destroy harmful microorganisms

Peel – The outer skin or rind of a fruit and vegetable; this outer skin will generally be removed and discarded before the vegetable is used, but there are occasions when it is left on; the peel on a fruit is also often removed, but depending on its use, it may be required to remain on the flesh of the fruit

Pilaf – A savory rice dish in which the rice is browned in oil or butter before it is cooked in liquid; cooked in just enough liquid so that all of the liquid is absorbed; contains various seasonings and generally includes chopped vegetables

Poach – A method in which items are cooked gently in liquid at 160 °F to 180 °F

Portion – Also known as serving size; a standardized amount of food served

Purée – Cooked food, usually vegetables, fruits, or legumes that has been ground, pressed, blended, or sieved to the consistency of a creamy paste or liquid

Reduce – The process of thickening and intensifying the flavor of a liquid mixture such as a soup, sauce, wine, or juice by simmering or boiling; as the food cooks, the liquid evaporates, leaving the cooking vessel and decreasing the total volume of liquid

Render – To transform solid fat into liquid form by use of heat

Rondelle – A type of cut that creates round or oval, flat pieces by cutting a cylindrical vegetable crosswise

Roux – A mixture of fat (especially butter) and flour used as a thickening agent in the making of sauces

Sauté – To cook food quickly over relatively high heat, literally meaning "to jump" as the food does when placed in a hot pan

Score – To make shallow cuts in the surface of meat, fish, bread, or cakes; has several purposes, such as decorating the food, tenderizing, aiding in the absorption of flavor when marinating, and allowing fat to drain from meat while cooking; trays of baked items such as cornbread may be scored to indicate where the item should be cut without actually cutting it

Scratch-based food preparation – Utilizes multiple culinary techniques within a recipe while prioritizing the incorporation of ingredients as close to their original state as possible to produce child-approved menu items

Seasoning – An ingredient added to a dish that intensifies the flavors of other ingredients

Shred – A method of cutting food into thin slices or pieces using a sharp knife, food processor, or grater. Shred cooked meat by pulling it apart into strips using forks
Simmer – To maintain the temperature of a liquid just below boiling; also a cooking method in which items are cooked in a simmering liquid

Slice – To cut, generally across the grain, into thin pieces that are consistent in thickness; will most often range from 1/16" to 3/8" in thickness

Slurry – A thickening mixture that is made up of equal parts flour and water that is prepared for use in making soups, stews, and sauces

Sofrito – In Italy, sofrito is called soffrito (or, if raw, battuto) and is a combination of three ingredients: onion, carrot, and celery, with a ratio of two parts onion to one part carrot and celery

Spatula – A hand-held tool that is used for lifting, flipping, or spreading

Speed-scratch food preparation – Incorporates value-added food products with additional ingredients, utilizing minimal production steps, to produce child-approved menu items

Spice – A seed, fruit, root, bark, or other plant substance primarily used for flavoring, coloring, or preserving food

Standardized recipe – A recipe that has been tried, adapted, and retried several times for use by a given foodservice operation, and it has been found to produce the same quality results and yield every time the exact procedures are used

Steam – A cooking process that places foods above, not in, water that is boiling or hot enough to produce steam that cooks the foods with moist hot air (vapors)

Stew – A cooking technique that calls for the main ingredient to be cut into bite-sized pieces, either stewed or blanched and then cooked in a flavorful liquid that may be thickened with flour or roux

Stir-fry – A cooking method traditionally performed in a wok; foods are cut into small pieces and stirred or tossed frequently as they cook

Stock – A flavorful liquid prepared by simmering bones and/or vegetables in water with aromatics until their flavor is extracted; used as a base for soups, sauces, and other preparations

Strain – To remove undesirable particles from a liquid, to separate liquid from other solids, or to separate various contents from other contents, such as removing smaller particles from larger particles

Sweat – To cook, usually covered, without browning over low heat to encourage flavors to be extracted from vegetables and spices

Tare – Reset an electronic or spring-style scale to zero, also known as "zero the scale," and may be used to weigh ingredients without weighing the container

Time standard – A recipe that has been tried, adapted, and retried several times for use by a given foodservice operation, and it has been found to produce the same quality results and yield every time the exact procedures are used

Toast – Browning food by exposure to dry heat

Toss – To mix the ingredients of a food dish, such as salads and pasta, by using a light lift and drop method

Trinity – A combination of aromatic vegetables, including onion, celery, and green bell pepper.

Umami – The name for the taste sensation produced by the free glutamates commonly found in fermented and aged foods

Whetstone – A fine-grained stone that sharpens knives when the blade is drawn across the coarse surface of the stone at a 22° angle

Whip – To beat food with a mixer to incorporate air and produce volume, often used to create heavy or whipping cream, salad dressings, or sauces

Work simplification – The process of finding the easiest and most efficient way to do a job

Yield – The amount of product resulting in the completion of the preparation process

Zest – To cut the zest, or the colorful part of the skin that contains oils and provides aroma and flavor, away from the fruit

Instructor's Preparation Guide

The preparation guide is designed to help the instructor prepare for each food/cooking activity. The narrative in the training manual provides more detail.

Chef Demonstration Guide

Activity/Demo Name: Weight vs. Volume Demonstration

Preparation Note(s): Gather the following equipment and ingredients. Follow the Demonstrate/Discuss list in Culinary Basics: Weight vs. Volume Demonstration.

- Electronic scale
- Spring scale
- Empty food preparation container
- 2-oz portion cup
- 8 ounces shredded cheese

Activity/Demo Name: Weighing Activity

Preparation Note(s): Gather the following equipment and ingredients. Set up two (2) stations for participants to complete the Weighing Activity in the Culinary Basics: Weight vs. Volume Demonstration section of the training manual. Each station needs:

- 1 electronic scale
- 1 empty 1-quart measuring container
- 1-cup measuring cup
- ½-cup measuring cup
- 1 lb rolled oats in a 2-quart container

Activity/Demo Name: Muffin Mixing Method

Preparation Note(s): Prepare mise en place to demonstrate the following recipe for Basic Muffin Recipe.

- Large mixing bowl
- Rubber spatula
- No. 16 scoop
- Muffin pan
- Muffin pan liners or nonstick spray

Basic Muffin Recipe

- 1 cup all-purpose flour
- 1 cup whole wheat flour
- 1 Tbsp baking powder
- 1/4 tsp salt
- 1/4 cup granulated sugar
- 2 eggs, slightly beaten
- 1 cup low-fat milk
- 1/4 cup vegetable oil

Optional added flavoring: 1 cup blueberries, fresh or frozen

Place the dry ingredients into a mixing bowl and whisk to combine. Place liquid ingredients into another mixing bowl and whisk to combine. Add the wet ingredients to the dry ingredients and fold to combine. Gently fold in blueberries if using. Do not overmix, the batter will be lumpy. Use a scoop to portion batter into a muffin pan. Bake in a preheated 350°F oven for 25 minutes. Cool for 5 minutes before removing from pan. Serve warm or at room temperature. Muffins may be frozen for up to 3 months. Allow to thaw overnight in the refrigerator, then bring to room temperature or warm up for service.

TIP: Reserve 1-2 tablespoons of the flour and toss with the blueberries before incorporating into the batter. This will reduce color bleeding in the muffin, and it will help suspend the berries in the batter (preventing the berries from sinking).

Team Cooking Lab

- Set up team stations with the listed equipment.
- Alternatively, if the training space allows, you may set up a centralized tool and equipment staging area and require teams to gather their equipment after completing their mise en place list.
- Set up a centralized shared pantry ingredients (oils, spices, etc.) station along with scales and measures.
- Participants will weigh/measure what they need from those ingredients and take only what they need back to their station.

Assign teams: (See recipes for lists of ingredients.)

TEAM 1: Raspberry Drop Biscuit, Savory Ham and Cheese Muffin

Equipment:

- Chef knife
- Cutting board
- Measuring cups, full set
- Measuring spoons, full set
- Digital thermometer, instant-read
- 2-cup liquid measure
- Large mixing bowl x 2
- Medium mixing bowl
- Whisk
- Rubber spatula x 2
- Half sheet pan
- No. 12 scoop
- No. 16 scoop
- 12-cup muffin pan

TEAM 2: Whole Wheat Buttermilk Biscuits, Breakfast Muffins

Equipment:

- Chef knife
- Cutting board
- Measuring cups, full set
- Measuring spoons, full set
- Digital thermometer, instant-read
- Large mixing bowl
- Medium mixing bowl x 2
- 2-cup liquid measure
- Box grater
- Rasp grater
- Fork
- Half sheet pan
- Whisk
- Rubber spatula
- 12-cup muffin pan
- No. 16 scoop

TEAM 3: Pumpkin Muffin Squares, Cornbread

Equipment:

- Chef knife
- Bread knife
- Cutting board
- Measuring cups, full set
- Measuring spoons, full set
- Digital thermometer, instant-read
- Large mixing bowl x 2
- Medium mixing bowl x 2
- 2-cup liquid measure
- Whisk x 2
- Rubber spatula x 2
- 2-inch half-size steamtable pan
- Quarter sheet pan

TEAM 4: Baked Hush Puppies, Oatmeal Muffin Squares

Equipment:

- Chef knife
- Bread knife
- Measuring cups, full set
- Measuring spoons, full set
- Digital thermometer, instant-read
- Large mixing bowl
- Medium mixing bowl x 2
- Small mixing bowl
- 2-cup liquid measure
- Whisk x 2
- Rubber spatula x 2
- Fork
- Mini muffin pan
- 2-inch half-size steamtable pan

TEAM 5: Banana Bread Squares, Apple Cinnamon Crumb Muffins

Equipment:

- Chef knife
- Bread knife
- Cutting board
- Measuring cups, full set
- Measuring spoons, full set
- Digital thermometer, instant-read
- Large mixing bowl x 2
- Medium mixing bowl x 2
- Small mixing bowl
- 2-cup liquid measure
- Whisk x 2
- Rubber spatula x 2
- 2-inch half-size steamtable pan
- Box grater
- Vegetable peeler
- No. 12 scoop
- No. 60 scoop
- 12-cup muffin pan

TEAM 6: Pear Breakfast Gingerbread, Corn and Wheat Muffins

Equipment:

- Chef knife
- Bread knife
- Cutting board
- Measuring cups, full set
- Measuring spoons, full set
- Digital thermometer, instant-read
- Quarter sheet pan
- Colander
- Large mixing bowl x 2
- Medium mixing bowl x 2
- 2-cup liquid measure
- Whisk x 2
- Rubber spatula x 2
- 12-cup muffin pan
- No. 16 scoop

Equipment Checklist

Instructor's Note: At least 4 weeks before the training, contact the site coordinator to ensure the equipment is available. If any equipment is not available on-site, ask the site coordinator if it is possible to borrow equipment from another kitchen. Then, if any equipment is still unavailable, coordinate with the ICN to ship the missing equipment as needed. Clean and return the ICN's equipment after the training using the shipping label provided with the equipment.

Equipment	Total	Confirm Equipment Is Present	Use This Space To Add Comments If Equipment/Supplies Are Not Available. Please Include Any Equipment Substitutions Used.
		Appliance	s
Oven	3 - 4		
		Pots & Pan	ıs
2-inch half-size steamtable pan	3		
Half-size sheet pan	2		
Quarter-size sheet pan	2		
12-cup muffin pan	4		
Mini muffin pan	1		
		Small Kitchen	Tools
Chef knife	6		
Bread knife	3		
Cutting board	6		
Measuring cups, full set	6		
Measuring spoons, full set	6		
Digital thermometer	6		
1-quart container	2		
2-quart container	2		
Large mixing bowl	10		
Medium mixing bowl	11		
Small mixing bowl	2		
Whisk	10		
Rubber spatula	11		
2-cup liquid measure	6		
No. 12 scoop	2		

Equipment	Total	Confirm Equipment Is Present	Use This Space To Add Comments If Equipment/Supplies Are Not Available. Please Include Any Equipment Substitutions Used.
No. 16 scoop	2		
No. 60 scoop	1		
Box grater	2		
Rasp grater (fine grater)	1		
Vegetable peeler	1		
Fork	2		
Tongs	12		
Colander	1		
Electronic scale	2		
Spring scale	1		
Potholders	12		



Instructor's Note: If certain ingredients are not available where you are training, use your best culinary judgment to find an alternative.

Food	Total Needed	Inventory From Prior Workshop	Purchased
	Needed	Produce	
Analas Casas Carilla Casal	4 11-	Fioduce	
Apples, Granny Smith, fresh	1 lb		
Bananas, fresh, ripe	4 lb		
Bell pepper, red, fresh	1 each		
Carrots, fresh	2 large		
Lemon, fresh	1 each		
Onion, yellow, fresh	1 medium		
	F	Refrigerator	
Butter, unsalted (NOTE to trainer: Freeze one 4-ounce stick of butter for the Whole Wheat Buttermilk Biscuit recipe.)	1 lb		
Buttermilk, low-fat	1 quart		
Cheese, cheddar, shredded	8 oz		
Eggs, whole, large	1 dozen		
Eggs, whole, liquid	16 oz		
Ham, diced, low sodium	4 oz		
Milk, low-fat	½ gallon		
Orange juice	3 fl oz		
Yogurt, Greek style, nonfat, plain	4 oz		
Yogurt, low-fat, plain	12 oz		

Food	Total Needed	Inventory From Prior Workshop	Purchased
	Dry/Cann	ed Goods	
Applesauce, unsweetened	½ cup		
Baking powder	2 each		
Baking soda	2 each		
Corn, canned, low sodium	1 can (15 oz)		
Cornmeal, whole grain, fine	1 lb 4 oz		
Flour, all-purpose, unbleached, enriched	4 lb		
Flour, whole wheat	6 lb		
Honey	1/4 cup		
Instant non-fat dry milk	1/2 cup		
Oats, rolled, dry	2 lb 10 oz		
Pan release spray	2 each		
Pears, canned, diced, in extra light syrup or 100% juice	3 cans (15 oz)		
Pumpkin puree, canned	2 cans (15 oz)		
Raisins	7.5 oz		
Sugar, brown	2 lb 8 oz		
Sugar, granulated	2 lb 8 oz		
Vegetable oil	20 oz		
	Dried 9	Spices	
Salt, table	1 container		
Black pepper, ground	2 Tbsp		
Cinnamon, ground	2 Tbsp		
Garlic powder	2 Tbsp		
Ginger, ground	2 Tbsp		
Nutmeg, ground	2 Tbsp		
Vanilla extract	4 oz		
	Free	ezer	
Blueberries, frozen, IQF	7 oz		
Raspberries, frozen, IQF	6 oz		

Food	Total Needed	Inventory From Prior Workshop	Purchased
	Pap	er Goods	
Foodservice gloves, all sizes	1 box each size		
Parchment paper	12 sheets		
Paper plates	50 each		
Napkins	50 each		
Forks	50 each		
Butter knives	50 each		
2-ounce portion cups	100 each		



Raspberry Drop Biscuit

Cooking Process: #2 Same-Day Service

CACFP Crediting Information		
Serving Size 1 Serving Provides		
1 biscuit	1.75 oz equivalent grains	

	12 Se	rvings
Ingredients	Weight	Measure
Butter, unsalted	4 oz	
Buttermilk, low-fat		1 cup
Flour, all-purpose, unbleached, enriched	12 oz	
Flour, whole wheat	12 oz	
Sugar, granulated	2.5 oz	
Baking powder		2 ½ tsp
Baking soda		½ tsp
Salt, table		½ tsp
Raspberries, frozen, IQF	6 oz	

- 1. Preheat oven to 425 °F and set fan to low setting, if possible.
- 2. Melt the butter and allow to cool just a bit.
- 3. Add the cold buttermilk to the melted butter. Let sit for a minute, then gently stir to create chunks of chilled butter mixed with the buttermilk. Set aside.
- 4. Combine the flours, sugar, baking powder, baking soda, and salt.
- 5. Add the frozen raspberries to the dry ingredients and stir once to coat the raspberries with the flour mixture.
- 6. Add the buttermilk and butter mixture. Gently mix just until the dry ingredients are moistened, then stop mixing. It is okay if there are a few lumps of flour. Do not overmix or the berries will break down and color the dough.
- 7. Line a baking sheet with parchment paper and spray lightly with nonstick spray.
- 8. Use a No. 12 scoop to portion ⅓ cup mounds of dough onto the prepared baking sheet. Space drop biscuits 2 inches apart.
- 9. Bake for 12 14 minutes, or until the tops are just golden brown.
- 10. Cool biscuits on the sheet pan at room temperature. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from Washington Red Raspberry Commission.

Nutrients Per Serving				
Calories	212	Total Carbohydrates	31 g	
Total Fat	8 g	Dietary Fiber	3 g	
Saturated Fat	5.5 g	Total Sugars	8 g	
Cholesterol	21 mg	Protein	5 g	
Sodium	320 mg			

Savory Ham and Cheese Muffin

Cooking Process: #2 Same-Day Service

CACFP Crediting Information		
Serving Size 1 Serving Provides		
1 muffin	1 oz equivalent grains, 1 oz equivalent meat/meat alternate	

	12 Se	ervings
Ingredients	Weight	Measure
Flour, whole wheat	4.5 oz	1 cup
Flour, all-purpose, unbleached, enriched	3.4 oz	¾ cup
Sugar, granulated		1 Tbsp
Baking powder		3/4 tsp
Black pepper, ground		1/4 tsp
Garlic powder		½ tsp
Milk, low-fat		1 1/4 cups
Eggs, whole, large		2 each
Vegetable oil		2 Tbsp
Ham, diced, low sodium	4 oz	
Cheese, cheddar, shredded	6 oz	

Instructions

- 1. Preheat oven to 375 °F. Spray a muffin pan with nonstick spray.
- 2. In a large bowl, mix flours, sugar, baking powder, black pepper, and garlic powder.
- 3. In a medium bowl, whisk together the milk, eggs, and vegetable oil.
- 4. Add wet ingredients, ham, and cheese to the dry ingredients. Fold in the dry ingredients until just combined.
- 5. Using a No. 16 scoop, portion \(\frac{1}{2} \) cup (about 2 \(\frac{1}{2} \) oz) batter into each muffin cup.
- 6. Bake for 15 20 minutes or until cooked through.
- 7. Let cool slightly before serving. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from Chef Samantha Cowens Gasbarro.

Nutrients Per Serving			
Calories	180	Total Carbohydrates	17 g
Total Fat	9 g	Dietary Fiber	1 g
Saturated Fat	5 g	Total Sugars	N/A
Cholesterol	20 mg	Protein	9 g
Sodium	160 mg		

Whole Wheat Buttermilk Biscuits

Cooking Process: #2 Same-Day Service

CACFP Crediting Information		
Serving Size 1 Serving Provides		
1 biscuit	1 oz equivalent grains	

	12 Se	rvings
Ingredients	Weight	Measure
Flour, whole wheat	4.5 oz	1 cup
Flour, all-purpose, unbleached, enriched	4.5 oz	1 cup
Baking powder		2 tsp
Salt, table		½ tsp
Baking soda		½ tsp
Butter, unsalted, frozen	3 oz	6 Tbsp
Buttermilk, low-fat		³¼ cup

Instructions

- 1. Preheat oven to 425 °F.
- 2. In a medium mixing bowl, combine the whole wheat flour, all-purpose flour, baking powder, baking soda, and salt. Stir to combine.
- 3. Use a box grater to grate 3 ounces of the frozen butter (3/4 of one stick). Immediately add grated frozen butter pieces to the dry ingredients and fluff gently with a fork to coat the pieces of butter with flour. Work quickly to keep the butter firm.
- 4. Add the buttermilk and stir with the fork until the dough comes together.
- 5. Turn dough out onto a lightly floured surface. Pat dough into a rectangle about ½ inch thick. Fold the dough onto itself into thirds. Pat dough again into a ½-inch thick rectangle and repeat folding into thirds to create layers.
- 6. Pat dough into a 1-inch-thick rectangle and place on a half-sheet pan lined with parchment paper. Use a chef knife to evenly cut the rectangle into 12 equal biscuits (3 x 4). Leave cut biscuits touching for a higher rise during baking.
- 7. Bake for 10 12 minutes, or until the tops are golden brown.
- 8. Remove from oven and serve warm. CCP: No bare-hand contact with ready-to-eat foods.

Recipe from the Culinary Institute of Child Nutrition.

Nutrients Per Serving			
Calories	139	Total Carbohydrates	18 g
Total Fat	6 g	Dietary Fiber	2 g
Saturated Fat	18 g	Total Sugars	1 g
Cholesterol	16 mg	Protein	3 g
Sodium	149 mg		

Pumpkin Muffin Squares

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 piece (about 2" x 2 3/8")	1 oz equivalent grains

	25 Se	rvings
Ingredients	Weight	Measure
Flour, whole wheat	7.75 oz	1 ¾ cups
Flour, all-purpose, unbleached, enriched	7.25 oz	1 ½ cups 2 Tbsp
Baking powder		1 ½ tsp
Baking soda		1 tsp
Salt, table		1 tsp
Cinnamon, ground		2 tsp
Nutmeg, ground		½ tsp
Ginger, ground		½ tsp
Sugar, brown	13.3 oz	1 ⅔ cups
Vegetable oil		¾ cup
Eggs, whole, liquid	4.5 oz	½ cup
Vanilla extract		2 tsp
Pumpkin puree, canned	1 lb 4 oz	2 ⅓ cups
Raisins	2.5 oz	⅓ cup

- 1. Preheat oven to 350 °F for conventional, or 325 °F for convection (fan on low).
- 2. In a large mixing bowl combine whole wheat flour, all-purpose flour, baking powder, baking soda, salt, cinnamon, nutmeg, and ginger. Whisk to combine.
- 3. In a medium mixing bowl combine the sugar and oil. Whisk until combined.
- 4. Add eggs, vanilla extract, pumpkin puree, and raisins. Whisk until combined.
- 5. Add wet ingredients to the dry ingredients. Use a rubber spatula to fold dry ingredients into the wet ingredients, mixing until just combined. The batter will be lumpy. Do not overmix.
- 6. Pour batter into a 2-inch half-size steamtable pan lightly coated with nonstick spray.
- 7. Bake until golden brown, about 40 45 minutes in a 350 °F conventional oven, or 35 40 minutes in a 325 °F convection oven.
- 8. Remove from oven, let cool for 10 15 minutes, and cut 5×5 into 25 pieces (about $2^{\circ} \times 2^{\circ}$). CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from USDA Recipes for Child Care Centers.

Nutrients Per Serving			
Calories	199	Total Carbohydrates	31 g
Total Fat	7 g	Dietary Fiber	2 g
Saturated Fat	1 g	Total Sugars	17 g
Cholesterol	6 mg	Protein	3 g
Sodium	190 mg		

Breakfast Muffins

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 muffin	1 oz equivalent grains

	12 Sc	ervings
Ingredients	Weight	Measure
Flour, whole wheat	4 oz	¾ cup 2 Tbsp
Flour, all-purpose, unbleached, enriched	3.5 oz	¾ cup
Baking soda		1 tsp
Ginger, ground		1 tsp
Cinnamon, ground		1 tsp
Baking powder		½ tsp
Salt, table		1/4 tsp
Sugar, granulated	6 oz	¾ cup
Vegetable oil		2 Tbsp
Eggs, whole, liquid	5 oz	½ cup 1 Tbsp
Yogurt, Greek style, nonfat, plain	4 oz	½ cup
Carrots, fresh, grated	3.5 oz	1 cup 1 Tbsp
Orange juice		3 fl oz
Applesauce, canned, unsweetened		½ cup
Lemon zest		1 Tbsp
Vanilla extract		1 ½ tsp

- 1. Preheat oven to 400 °F for conventional oven, or 375 °F for convection (fan set to low) oven.
- 2. In a large mixing bowl combine the whole wheat flour, all-purpose flour, baking soda, ginger, cinnamon, baking powder, and salt. Whisk to combine the dry ingredients.
- 3. In a medium mixing bowl combine the sugar and oil. Whisk until well combined.
- 4. Add the eggs, Greek yogurt, grated carrots, orange juice, apple sauce, lemon zest, and vanilla extract. Whisk until well combined.
- 5. Add the wet ingredients to the dry ingredients. Use a rubber spatula to fold the dry ingredients into the wet ingredients, mixing until just combined. Do not overmix.
- 6. Lightly coat a muffin pan with nonstick spray. Using a No. 16 scoop, portion ¼ cup (about 2 ½ oz) batter into each muffin cup.
- 7. Bake for 25 30 minutes in a conventional oven set to 400 °F, or 20 25 minutes in a convection oven set to 375 °F.
- 8. Remove from oven, cool for 5-10 minutes, and turn muffins out of the pan onto a clean prep surface.
- 9. Serve 1 muffin. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from USDA Recipes for Child Care Centers.

Nutrients Per Serving			
Calories	166	Total Carbohydrates	29 g
Total Fat	4 g	Dietary Fiber	1 g
Saturated Fat	1 g	Total Sugars	15 g
Cholesterol	47 mg	Protein	5 g
Sodium	194 mg		

Cornbread

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 piece (2" x 2 ½ ")	1 oz equivalent grains

	25 Se	rvings
Ingredients	Weight	Measure
Flour, whole wheat	8 oz	1 ½ cups
Cornmeal, whole grain, fine	8 oz	1 1/4 cups
Sugar, granulated	3 oz	⅓ cup 2 Tbsp
Baking powder		1 Tbsp 1 tsp
Salt, table		¾ tsp
Eggs, whole, liquid	3 oz	⅓ cup
Milk, low-fat		1 ¾ cups
Vegetable oil		½ cup
Bell pepper, fresh, red, ¼ inch dice	4 oz	¾ cup
Corn, canned, low sodium, drained, rinsed	4	½ cup 2 Tbsp

Instructions

- 1. Preheat oven to 400 °F for conventional, or 350 °F for convection (fan on low).
- 2. In a large mixing bowl combine flour, cornmeal, sugar, baking powder, and salt. Whisk to combine.
- 3. In a medium bowl, combine eggs, milk, and oil. Whisk to combine.
- 4. Add egg mixture to dry ingredients. Use a rubber spatula to fold the dry ingredients into the wet ingredients just until combined. Do not overmix.
- 5. Pour batter onto a quarter sheet pan lightly sprayed with nonstick spray.
- 6. Bake until lightly browned, about 30 35 minutes for a 400 °F conventional oven, or 20 25 minutes for a 350 °F convection oven.
- 7. Remove from oven. Cool for 10 minutes.
- 8. Cut 5 x 5 into 25 pieces. Serve 1 piece (about 2" x 2 ½"). CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from USDA Recipe for Child Care Centers.

Nutrients Per Serving			
Calories	107	Total Carbohydrates	18 g
Total Fat	3 g	Dietary Fiber	2 g
Saturated Fat	0 g	Total Sugars	4 g
Cholesterol	14 mg	Protein	3 g
Sodium	173 mg		

Baked Hush Puppies

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 hush puppy	0.5 oz equivalent grains

	14 Servings	
Ingredients	Weight	Measure
Egg, whole		2 each
Milk, low-fat		⅓ cup
Vegetable oil		2 Tbsp
Onion, yellow, fresh, finely minced		½ cup
Salt, table		1/4 tsp
Black pepper, ground		⅓ tsp
Baking powder		1 tsp
Cornmeal, whole grain, fine	4.3 oz	⅔ cup
Flour, all-purpose, unbleached, enriched	1.5 oz	⅓ cup

Instructions

- 1. Preheat oven to 350 °F.
- 2. In a medium bowl, add eggs, milk, and oil. Whisk to combine.
- 3. Mix in onion, salt, and black pepper.
- 4. Add baking powder, cornmeal, and flour, and mix until just combined. Do not overmix.
- 5. Spray a mini muffin pan with nonstick spray, then scoop 1 tablespoon of batter into each muffin cup.
- 6. Bake for 10 12 minutes. Test by putting a fork into a muffin. If nothing sticks, it is ready. If sticky, leave in oven for 1 2 more minutes.
- 7. Remove from oven and serve warm. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from the National CACFP Sponsors Association.

Nutrients Per Serving			
Calories	65	Total Carbohydrates	8 g
Total Fat	3 g	Dietary Fiber	1 g
Saturated Fat	0 g	Total Sugars	1 g
Cholesterol	27 mg	Protein	2 g
Sodium	59 mg		

Oatmeal Muffin Squares

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size 1 Serving Provides	
1 piece (about 2" x 2 %")	1.5 oz equivalent grains, ¼ cup fruit

	25 Sei	rvings
Ingredients	Weight	Measure
Flour, whole wheat	7.75 oz	1 ¾ cups
Flour, all-purpose, unbleached, enriched	7.25 oz	1 ½ cups 2 Tbsp
Oats, rolled, dry	7.25 oz	2 ¾ cups
Baking powder		2 tsp
Baking soda		1 ½ tsp
Cinnamon, ground		2 tsp
Nutmeg, ground		½ tsp
Salt, table		½ tsp
Eggs, whole, liquid	5 oz	½ cup 2 Tbsp
Sugar, granulated	4 oz	½ cup
Bananas, fresh, ripe, mashed	1 lb 5 oz	2 ⅓ cups
Yogurt, low-fat, plain	12 oz	1 ½ cups
Vanilla extract		1 Tbsp
Blueberries, frozen	7 oz	1 ⅓ cups
Raisins	5 oz	⅔ cup

- 1. Preheat oven to 375 °F for conventional, or 325 °F for convection (fan on low).
- 2. Set aside 1 oz of flour for step 6.
- 3. In a large mixing bowl combine the whole wheat flour, all-purpose flour, oats, baking powder, baking soda, cinnamon, nutmeg, and salt. Whisk to combine.
- 4. In a medium mixing bowl, combine the eggs and sugar. Whisk until combined.
- 5. Add mashed bananas, yogurt, and vanilla extract. Whisk until combined.
- 6. Add wet ingredients to the dry ingredients. Use a rubber spatula to fold the dry ingredients into the wet ingredients just until combined. The batter will be lumpy. Do not overmix.
- 7. In a small bowl, combine the frozen blueberries with the reserved 1 oz of flour. Toss to coat the blueberries with flour.
- 8. Add blueberries, any remaining flour, and raisins to the batter. Fold in until just combined.
- 9. Pour batter into a 2-inch half-size steamtable pan lightly coated with nonstick spray.
- 10. Bake until golden brown, about 40 45 minutes in a 375 °F conventional oven, or 35 40 minutes in a 325 °F convection oven.
- 11. Remove from oven, let cool for 10 –15 minutes, and cut 5 x 5 into 25 pieces (about 2" x 2 %"). CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from USDA Recipes for Child Care Centers.

Nutrients Per Serving			
Calories	171	Total Carbohydrates	34 g
Total Fat	2 g	Dietary Fiber	3 g
Saturated Fat	0 g	Total Sugars	13 g
Cholesterol	22 mg	Protein	5 g
Sodium	187 mg		

Apple Cinnamon Crumb Muffins

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 muffin	1 oz equivalent grains, ⅓ cup fruit

	12 Servings	
Ingredients	Weight	Measure
For Muffins:		
Flour, all-purpose, unbleached, enriched	0.7 oz	1/4 cup 1 Tbsp
Flour, whole wheat	5.75 oz	1 ¼ cups
Baking soda		1 1/4 tsp
Cinnamon, ground		1 ½ tsp
Sugar, brown	4.75 oz	½ cup 2 Tbsp
Eggs, whole	3.5 oz	2 each
Vegetable oil	5 oz	½ cup 2 Tbsp
Vanilla extract		1 ½ tsp
Apples, Granny Smith, peeled and grated	12 oz	2 ½ cups
For Crumb Topping:		
Sugar, brown	2.4 oz	1/4 cup 1 Tbsp
Sugar, granulated	0.875 oz	2 Tbsp
Cinnamon, ground		2 tsp
Flour, whole wheat	1.75 oz	1/4 cup 2 Tbsp
Butter, unsalted, melted	1.25 oz	3 Tbsp

- 1. In a large mixing bowl, combine all-purpose flour, whole wheat flour, baking soda, and cinnamon. Whisk to combine.
- 2. In a medium mixing bowl, combine the brown sugar, eggs, vegetable oil, vanilla extract, and grated apples. Mix until well combined.
- 3. Add the wet ingredients to the dry ingredients. Use a rubber spatula to fold dry ingredients into the wet ingredients. Mix until combined. Do not overmix.
- 4. Lightly spray muffin pan with nonstick spray.
- 5. Using a No. 12 scoop, portion the batter into prepared muffin pan.
- 6. In a small mixing bowl, prepare the crumb topping by combining the brown sugar, granulated sugar, cinnamon, flour, and melted butter. Stir together until well mixed.
- 7. Use a No. 60 scoop to distribute crumb topping evenly over all muffins. Break apart the crumb topping on top of each muffin.
- 8. Baked for 20 25 minutes in a preheated 350 °F oven.
- 9. Remove from oven and cool before serving. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from Iowa Department of Education.

Nutrients Per Serving			
Calories	298	Total Carbohydrates	38 g
Total Fat	15 g	Dietary Fiber	3 g
Saturated Fat	3 g	Total Sugars	21 g
Cholesterol	37 mg	Protein	3 g
Sodium	148 mg		

Pear Breakfast Gingerbread

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 bar	2 oz equivalent grains

	12 Servings	
Ingredients	Weight	Measure
Pears, canned, diced, extra light syrup, drained, syrup reserved		3 cups
Flour, whole wheat	7 oz	
Flour, all-purpose, unbleached, enriched	7 oz	
Baking powder		1 Tbsp
Baking soda		½ tsp
Salt, table		½ tsp
Ginger, ground		2 1/4 tsp
Cinnamon, ground		1 tsp
Eggs, whole		2 each
Sugar, granulated	5 oz	
Sugar, brown	5 oz	
Vegetable oil		½ cup
Reserved canned pear syrup		3/4 cup

- 1. Preheat oven to 350 °F.
- 2. Spray a quarter sheet pan with nonstick spray.
- 3. Drain pears and reserve the liquid.
- 4. In a large bowl, combine whole wheat flour, all-purpose flour, baking powder, baking soda, salt, ginger, and cinnamon.
- 5. In a medium mixing bowl, combine the eggs, sugar, brown sugar, and vegetable oil. Whisk until well blended. Stir in ³/₄ cup of reserved canned pear juice.
- 6. Pour the wet ingredients into the dry ingredients. Use a rubber spatula to fold dry ingredients into the wet ingredients. Mix until just combined.
- 7. Add the diced pears to the batter and gently fold into the batter.
- 8. Pour the batter onto the prepared quarter sheet pan.
- 9. Bake for 35 minutes, or until lightly browned.
- 10. Remove from oven and cool in the pan on a rack.
- 11. Cut 3 x 4 into 12 bars. CCP: No bare-hand contact with ready-to-eat food.

Recipe adapted from Pacific Northwest Canned Pears.

Nutrients Per Serving			
Calories	265	Total Carbohydrates	51 g
Total Fat	6 g	Dietary Fiber	4 g
Saturated Fat	1 g	Total Sugars	N/A
Cholesterol	31 mg	Protein	4 g
Sodium	290 mg		

Corn and Wheat Muffins

Cooking Process: #2 Same-Day Service

CACFP Crediting Information	
Serving Size	1 Serving Provides
1 muffin	1.75 oz equivalent grains

	12 Servings		
Ingredients	Weight	Measure	
Cornmeal, whole grain, fine	6.4 oz	1 cup	
Flour, whole wheat	4.5 oz	1 cup	
Baking powder		2 ½ tsp	
Salt, table		1/4 tsp	
Milk, low-fat		1 cup	
Eggs, whole		1 each	
Honey		½ cup	
Vegetable oil		2 Tbsp	

Instructions

- 1. Preheat the oven to 375 °F.
- 2. Lightly coat a muffin pan with nonstick spray.
- 3. In a large mixing bowl, combine the cornmeal, whole wheat flour, baking powder, and salt. Whisk to combine.
- 4. In a separate bowl, combine the milk, eggs, honey, and vegetable oil. Whisk to combine.
- 5. Pour wet ingredients into the dry ingredients. Use a rubber spatula to fold the dry ingredients into the wet ingredients until just incorporated.
- 6. Use a No. 16 scoop to portion the batter into the prepared muffin tins. Bake until golden brown, 15 20 minutes.
- 7. Cool in the pans on racks before removing the muffins from the tins.
- 8. Serve warm or at room temperature. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from the Culinary Institute of America's Healthy Kids Collaborative.

Nutrients Per Serving			
Calories	140	Total Carbohydrates	25 g
Total Fat	3 g	Dietary Fiber	2 g
Saturated Fat	0 g	Total Sugars	N/A
Cholesterol	15 mg	Protein	4 g
Sodium	190 mg		

Banana Bread Squares

Cooking Process: #2 Same-Day Service

CACFP Crediting Information		
Serving Size	1 Serving Provides	
1 piece (2" x 2 ½")	2 oz equivalent grains	

	25 Servings		
Ingredients	Weight	Measure	
Flour, whole wheat	14.5 oz	3 1/4 cups	
Sugar, granulated	8.5 oz	1 ¼ cups 1 Tbsp	
Instant non-fat dry milk		1/ ₈ cup	
Baking powder		2 ½ tsp	
Baking soda		½ tsp	
Nutmeg, ground		1 tsp	
Salt, table		½ tsp	
Bananas, fresh, ripe, mashed	13 oz	1 ½ cups	
Eggs, whole, liquid	3.5 oz	⅓ cup 1 Tbsp	
Water		² ⁄₃ cup	
Vegetable oil	3 oz	½ cup	
Vanilla extract		1 tsp	

- 1. Preheat oven to 350 °F for conventional, or 300 °F for convection (fan on low).
- 2. Place flour, sugar, instant dry milk, baking powder, baking soda, nutmeg, and salt in a large mixing bowl. Whisk to combine dry ingredients.
- 3. In a medium mixing bowl, combine the bananas, eggs, water, vegetable oil, and vanilla. Whisk until well combined.
- 4. Add wet ingredients to the dry ingredients. Use a rubber spatula to fold the dry ingredients into the wet ingredients. Continue mixing just until the dry ingredients are incorporated. Batter will be lumpy. Do not overmix.
- 5. Pour the batter into a 2-inch half-steam table pan lightly coated with nonstick spray.
- 6. Bake until golden brown, about 35 40 minutes in a 350 °F conventional oven, or 25 35 minutes in a 300 °F convection oven.
- 7. Cut banana bread 5 x 5 into 25 pieces. CCP: No bare-hand contact with ready-to-eat foods.

Recipe adapted from USDA Recipes for Child Care Centers.

Nutrients Per Serving			
Calories	142	Total Carbohydrates	25 g
Total Fat	4 g	Dietary Fiber	2 g
Saturated Fat	1 g	Total Sugars	12 g
Cholesterol	15 mg	Protein	3 g
Sodium	135 mg		



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