CICN PRESENTS

CULINARY KEYSTONES

TRAINING MANUAL

CICN | CULINARY INSTITUTE OF CHILD NUTRITION

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CULINARY KEYSTONES

TRAINING MANUAL

EXECUTIVE DIRECTOR
Aleshia Hall-Campbell, PhD, MPH

Key Area:
1 – Nutrition
2 – Operations
USDA Professional Standards Codes:
Menu Planning – 1100
Food Production – 2100
Serving Food – 2200

CICN | CULINARY INSTITUTE OF CHILD NUTRITION

2024

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BACKGROUND INFORMATION FOR TRAINERS

WELCOME to *CICN Presents: Culinary Keystones*. This training manual is 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 students. To assist you further in successfully conducting this training, the Training Manual includes the following prompts:

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.

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 provided will assist you in having a successful training.

KEY MESSAGES

This prompt will provide important information that child nutrition professionals should understand. There are suggested questions to ask participants for discussion purposes. Please 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 good discussion among the group. For some questions, answers may be provided to help guide the conversation if participants seem reluctant to answer.

ADDITIONAL INFORMATION

- This training is intended for 24 participants, including hands-on food production activities for twelve sets of paired participants. However, if there are fewer than 24 participants, the total number of participants will be divided as needed.
- The equipment list, shopping list, setup guide, and lesson preparation information can be found in the Appendix of the Training Manual.

ACTIVITY INFORMATION

Participants will work together. At the beginning of the training, divide the participants into pairs. Depending on the total number of participants, there may be three participants that work together.

Here are a few suggestions for developing teams/pairs:

- Allow participants who are sitting next to each other to be in teams or pairs or have them number off by the desired number of lab teams.
- Have child nutrition or culinary terms on one note card and the corresponding definition on another note card. Let participants circulate the room to find a match. The participants with matching cards are partners. For example, one card would have the word “food processor,” and the corresponding definition card would read, “This piece of equipment is used to shred, chop, and blend foods.”
- 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.

The above suggestions can serve two purposes: an ice-breaker and a way to form lab teams/pairs.

TRAINING-AT-A-GLANCE

EXPECTED TRAINING DURATION- 2 HOURS

TIME	TOPIC	TASK	MATERIALS
INTRODUCTION			
20 Minutes	Welcome and Overview	○ Introduce topic ○ Introduce instructor ○ Participant introductions ○ Training overview ○ Ground rules ○ Review USDA professional standards ○ Review ICN Competencies ○ Review training goals and objectives ○ Review culinary terms	○ Sign-in sheet ○ Training Manual
STANDARDIZED RECIPES			
OBJECTIVES: ○ Summarize the benefits of utilizing a standardized recipe. ○ Identify the components of a standardized recipe.			
15 Minutes	Recipe Basics	○ Review the benefits and components of a standardized recipe	○ Training Manual ○ Handout: Benefits of Standardized Recipes ○ Recipe: Bean Tostada USDA Recipe for Schools
MISE EN PLACE			
OBJECTIVE: Identify how to develop a mise en place schedule for efficient food production.			
15 Minutes	Mise en Place	○ Review how to make a mise en place list	○ Training Manual ○ Handout: Mise en Place ○ Handout: Mise en Place (Template) ○ Recipe: Bean Tostada USDA Recipe for Schools ○ Handout: Mise en Place List (Sample)

TIME	TOPIC	TASK	MATERIALS
WEIGHT VERSUS VOLUME			
OBJECTIVES: ○ Apply the use of basic units of measurement. ○ Explain the benefits of using weight and volume properly.			
20 Minutes	Weight Versus Volume	○ Review units of measure ○ Identify the proper tools to utilize for accurate measuring	○ Training Manual ○ Instructor's Preparation Guide

TIME	TOPIC	TASK	MATERIALS
PORTIONING			
OBJECTIVES: ○ Select the correct tools and equipment for measuring and serving. ○ Apply best practices for portion control.			
5 Minutes	Portion Control	○ Review portion control benefits ○ Review portion control tools	○ Training Manual ○ Handout: Basics-at-a-Glance
ACTIVITY: DEVELOPING A MISE EN PLACE LIST			
OBJECTIVE: Develop a mise en place list using multiple recipes.			
25 Minutes	Activity	○ Develop a mise en place list	○ Training Manual ○ Grab-and-Go Recipe packet ○ Handout: Mise en Place List (Template)
WRAP UP			
10 Minutes	Goal Development	○ Review the lesson ○ Discuss implementation of skills	○ Training Manual ○ Handout: Application Action Plan ○ Handout: Reflections
CONCLUSION			
10 Minutes	○ Training Evaluation	○ Conduct Training Evaluation ○ Conclude the training	○ Training Manual ○ Training Evaluation QR code

CICN PRESENTS: CULINARY KEYSTONES

INTRODUCTION (5 MINUTES)

INSTRUCTOR'S NOTE:
Introduce yourself to the attendees using the following format and 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.

INTRODUCTION TALKING POINTS

- Welcome to *CICN Presents: Culinary Keystones*.
- You can say: This training will teach you how to cook from scratch or with some pre-made ingredients. You will learn important skills like reading recipes and organizing your tools and ingredients before cooking. You will also learn how to measure and portion your food. By the end of the training, you will be able to make delicious and high-quality meals for your students. This training will be hands-on, so you will have a chance to practice these skills.
- Introduce yourself and other special guests. You should state your name, title/credentials, and relevant experience.

ICE BREAKER IDEAS

- Facilitate an ice breaker to provide participants with an opportunity to introduce themselves and identify their titles/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?
- After the ice breaker, instruct participants to form (or you may assign) twelve teams of two for the activity later in the training.
- Consider combining the ice-breaker and the pairs/team formation.

TRAINING OVERVIEW

Refer participants to the following documents and briefly review each one:

- Ground Rules
- USDA Professional Standards
- ICN Competencies
- Training Goals and Objectives
- Culinary Terms

INSTRUCTOR'S NOTE:
Time does not allow for a review of all of the terms and definitions included in the Culinary Terms. Ask volunteers to read the definitions for the following terms: **Batch Cook, Blanching, Mise en Place**, and **Standardized Recipe**. Ask if any other culinary terms need clarification.

GROUND RULES

INSTRUCTOR'S NOTE:
Prior to the training, you can send the following ground rules to all training participants.

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 another person's point 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
Ensure proper food safety practices are adhered to at all times. 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 your 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.

PROFESSIONAL STANDARDS AND KEY AREA CODE

KEY AREA CODES

1 – Nutrition

2 – Operations

PROFESSIONAL STANDARDS

Menu Planning – 1100

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

1140 – Write standardized recipes, and use Food Buying Guide.

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 school meal preparation.

2140 – Properly use and care for equipment.

Serving Food – 2200

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

2230 – Serve food to maintain quality and appearance standards.

ICN COMPETENCIES

COMPETENCIES, KNOWLEDGE, AND SKILLS OF EFFECTIVE SCHOOL NUTRITION ASSISTANTS AND TECHNICIANS

FUNCTIONAL AREA 1: EQUIPMENT USE AND CARE — This functional area is defined as the selection, operation, and maintenance of foodservice equipment.

CORE COMPETENCY 1.1

1.1a Demonstrates the ability to select the correct foodservice equipment for the food product being prepared.

FUNCTIONAL AREA 2: FOOD PRODUCTION — This functional area is defined as the production of high-quality food products using procedures for receiving, inventory, preparation, and service of safe, appetizing, nutritious meals to students.

CORE COMPETENCY 2.1

2.1a Knows units of measurement (pound, cup, etc.) used in preparation/production, and demonstrates the ability to make appropriate conversions and sizing adjustment, as needed.

CORE COMPETENCY 2.2

2.2a Knows and demonstrates basic food preparation techniques used in producing large quantities of food items.
2.2b Knows and demonstrates the ability to prepare food products following standardized recipes.

CORE COMPETENCY 2.3

2.3a Knows the importance of and demonstrates proper procedures for monitoring and evaluating all foods (received and produced) to ensure quality standards are achieved.

OVERALL TRAINING GOALS

- Equip participants with the knowledge and skills required to effectively utilize standardized recipes and implement efficient food production practices
- Improve the participants' ability to produce high-quality, consistent, and well-portioned dishes while minimizing waste and maximizing efficiency.

TRAINING OBJECTIVES

By the end of the training, participants will be able to:

- Summarize the benefits of utilizing a standardized recipe.
- Identify the components of a standardized recipe.
- Utilize a standardized recipe to prepare high-quality, consistent, and well-portioned dishes.
- Develop a mise en place schedule for efficient food production.
- Apply the use of basic units of measurement.
- Explain the benefits of using weight and volume properly.
- Select the correct tools and equipment for measuring and serving.
- Apply best practices for portion control.

STANDARDIZED RECIPES
(15 MINUTES)

TIME	TOPIC	TASK	MATERIALS
STANDARDIZED RECIPES			
OBJECTIVES: ○ Summarize the benefits of utilizing a standardized recipe. ○ Identify the components of a standardized recipe.			
15 Minutes	Recipe Basics	○ Review the benefits and components of a standardized recipe	○ Training Manual ○ Handout: Benefits of Standardized Recipes ○ Recipe: Bean Tostada USDA Recipe for Schools

LESSON OVERVIEW

- Today we are talking about using standardized recipes in child nutrition programs. These recipes have been tested and adjusted to work well in a specific setting, giving consistent results every time they are used. Using these standardized recipes is important for preparing the food correctly.
- We will discuss why standardized recipes are helpful, identify the components of a standardized recipe, and learn how to read and use them. The standardized recipe is like a blueprint or guide for making a dish, so reading the whole thing before you start cooking will help to ensure you do not miss any steps. Even convenience foods that are used in child nutrition programs need a standardized recipe to ensure they are prepared correctly.

DISCUSS

- Today, we will discuss the importance of using standardized recipes in child nutrition programs. A standardized recipe is a recipe that has been tested and adapted for use in a specific setting, and it provides consistent results every time it is prepared.
- Standardized recipes are important for ensuring consistent food quality, but they can be confusing because they have a lot of information. This lesson will help make them less intimidating. We will discuss why using a standardized recipe is helpful, its parts, and how to read and use it. Throughout this section, we will:
  - Summarize the benefits of utilizing a standardized recipe.
  - Identify the components of a standardized recipe.
  - Identify how to read and use a standardized recipe.
- The food production process begins with the standardized recipe, which gives all the steps and procedures necessary for consistent, quality food production.

- Review the U.S. Department of Agriculture (USDA) definition of a standardized recipe.
  - *The U.S. Department of Agriculture (USDA) defines a standardized recipe as one that has been tried, adapted, and retried at least three times and has been found to produce the same good results and yield every time when the exact procedures are used with the same type of equipment and the same quantity and quality of ingredients.*
    The terms "quantity recipes" and "standardized recipes" often are used interchangeably; however, they are not the same. Many recipes are written to produce large quantities of food, but the recipe may or may not be standardized. Any recipe that produces 25 servings or more is termed a quantity recipe. However, quantity recipes are not standardized until they have been prepared at least 3 times with consistent results.
- All menu items served in schools need a standardized recipe. Even convenience foods, such as frozen pizza, need directions for staff to follow during preparation and cooking.
- Think of a standardized recipe as your blueprint or guide for preparing menu items.
- Although recipes are a step-by-step set of instructions, the instructions may not always appear this way. Therefore, reviewing the recipe from beginning to end before preparation is important.
  - For example, a recipe might read "pour out the cooking liquid" on one line, but the words "and reserve" are on the second line. If you are not careful, you will pour out the cooking liquid and later learn that you need to reserve the liquid when you continue reading the recipe and see the words "and reserve."

CLASS DISCUSSION PROMPT

Question: What are some benefits of using standardized recipes in your program?

INSTRUCTOR'S NOTE:

Ask for verbal answers and then review the Benefits of Standardized Recipes handout.

HANDOUT: BENEFITS OF STANDARDIZED RECIPES

BENEFITS OF STANDARDIZED RECIPES

Using standardized recipes provides many benefits to child nutrition operations.

DISCUSS

- Consistent food quality – Using standardized recipes ensures that menu items are consistent in quality each time they are prepared and served.
- Predictable yield – Using standardized recipes produces the planned number of servings. This can help reduce the amount of leftover food if there has been overproduction and help prevent shortages of servings on the line. A predictable yield is especially important when transporting food from a production kitchen to other serving sites.
- Customer satisfaction – Well-developed recipes that appeal to students are important to maintaining and increasing student participation levels. Schools may take a lesson from national restaurant chains that have developed popular menu items consistent in every detail of ingredient, quantity, preparation, and presentation. Standardized recipes provide this consistency and can result in increased customer satisfaction.
- Consistent nutrient content – Standardized recipes ensure that nutritional values per serving are valid and consistent.
- Food cost control – Standardized recipes provide consistent and accurate information for food cost control because the same ingredients and quantities of ingredients per serving are used each time the recipe is produced.
- Efficient purchasing procedures – Purchasing is more efficient because the quantity of food needed for production is easily calculated from the information on each standardized recipe.
- Inventory control – Using standardized recipes provides predictable information on the quantity of food inventory that will be used each time the recipe is produced.
- Labor cost control – Written standardized procedures in the recipe make efficient use of labor time and allow for planned scheduling of foodservice personnel for the workday. Training costs are reduced because new employees receive specific directions for preparing each recipe.
- Increased employee confidence – Employees feel more satisfied and confident in their jobs because standardized recipes eliminate guesswork, decrease the chances of producing poor food products, and prevent shortages of servings during meal service.
- Successful completion of Administrative Reviews – Standardized recipes are a documentation source for the Administrative Review (AR). ARs determine how well schools are meeting nutrition standards. A review cannot be completed if the recipes are missing information or provide inaccurate information on ingredients, yield, or serving size. ARs require standardized recipes to ensure that the nutrient analysis is accurate. Keep menus, recipes, production records, and nutrient analyses on file for review.

KEY MESSAGES

- A best practice is to always review the recipe from beginning to end before preparation.
- A standardized recipe is your guide for accurately preparing menu items.
- Using a standardized recipe in food production allows the program to yield the same results each time the recipe is prepared.

INSTRUCTOR'S NOTE:

For more in-depth information about recipe development, the Institute of Child Nutrition published the *USDA Recipe Standardization Guide for School Nutrition Programs.*

The guide describes recipe standardization techniques in detail and includes examples, practice exercises, and reference materials. It is a "how-to" guide on recipe standardization for school nutrition recipe developers. The guide is designed to be a complete source of information on recipe standardization and includes a glossary of terms related to recipe standardization.

CLASS DISCUSSION PROMPT

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

Possible Answer:

- The directions may not be listed in the exact order.
- An ingredient may be used in multiple steps, so identifying this beforehand limits potential mistakes.

THE ANATOMY OF A STANDARDIZED RECIPE

INSTRUCTOR'S NOTE:
We want to make this part of the training is engaging for everyone involved. To do this, we suggest you ask volunteers to participate by identifying key information in each section of the recipe. For example, when discussing the Equipment and Utensils Needed section, ask someone to point out a piece of equipment and a serving utensil mentioned in the recipe. This exercise helps participants to be more involved in the training and helps them remember the important details. Ask participants questions about each component to help them understand why it is important and how they can use it in their work. This exercise helps them think more deeply about applying this information in their work.
The goal is to make this part of the training as engaging as possible, so be creative and have fun!

DISCUSS

Now we will review the components of a standardized recipe, using the *Bean Tostada USDA Recipe for Schools* as a reference.

- Recipe Title and Recipe Description
  - The recipe has a title (name) and brief description (1–3 sentences).
  - Include a picture of the final product to illustrate how the final product should look to help cooks and servers achieve consistency visually.
- Ingredients
  - The ingredient list includes all ingredients used in a recipe. The ingredient name includes the name of the product, product type/form (fresh, frozen, canned), and any preparation technique(s) (peeled, grated, minced, diced). The size for preparation techniques, such as slicing and dicing (e.g., 1/2" slices or 1/4" diced) is included. Ingredients are listed in the order they are used when preparing the recipe.
- Units of Measure for Each Ingredient
  - The quantity of each ingredient is listed in weight and volume. Many USDA includes both the weight and volume, except when the weight is below 1 oz, because weight provides the most accurate information for the Recipe Analysis Workbook (RAW) and nutrient analysis. Package numbers such as "1 package" are not used to describe the amount of a product." Package size is variable depending on the supplier or the form. Quantities are listed in the most universally understood unit of measure (e.g., "1 lb 4 oz" instead of "20 oz" or "1/2 cup" instead of "8 Tbsp"). Standard abbreviations are used for units of measure and a fraction format.
- Preparation Directions
  - The steps for preparing the recipe are listed in order, including information on alternative preparation methods and helpful cooking tips.

- Cooking Temperature, Cooking Time, and Preparation Time
  - The preparation time, and cooking temperature and cooking time, if appropriate, are included. Preparation time includes chopping or dicing ingredients, preparing individual servings, placing items on a baking sheet, etc.
- Serving Size
  - The amount of a single portion is provided in volume/weight. Provide information in a practical amount, such as 1/2 cup, 1 slice, 2 squares, etc. To represent a portion quantity in a "practical amount," use easily recognizable tools like an 8 oz spoodle or specify ingredients in clear units such as "each" or "number of pieces." This approach ensures servers can quickly and accurately measure food portions. Keeping things simple and consistent aids in preventing mistakes and ensures students receive the right amount of food.
- Recipe Yield
  - Provide the amount of the finished or processed product (weight, volume, and number of servings) available after production.
- Equipment and Utensils Needed
  - List the cooking and serving equipment needed to prepare and serve the recipe.
- Crediting Information
  - This statement should identify which NSLP/SBP meal component(s) the ingredients in the recipe count toward meats/meat alternates, vegetables (including subgroups), fruits, and/or grains. Include both crediting statements if an ingredient may credit toward more than one meal component. For example, the Bean Tostada USDA Recipe for Schools crediting statement—"Legume as Meat Alternate: 2 oz equivalent meat/meat alternate, 1/8 cup red/orange vegetable, 1/4 cup other vegetable, 1/8 cup additional vegetable, and 1 oz equivalent grains." OR "Legume as Vegetable: 0.5 oz equivalent meat/meat alternate, 3/8 cup legume vegetable, ⅛ cup red/orange vegetable, 1/4 cup other vegetable, 1/8 cup additional vegetable, and 1 oz equivalent grains."
- Nutrient Analysis
  - In this section, identify the nutrients provided per serving. The purpose of the nutrient analysis is to determine compliance with school meal regulatory requirements for calories, saturated fat, and sodium and to monitor the levels of these dietary components in school meals.
- Marketing Guide
  - The Marketing Guide is a table that shows the amount of each fresh vegetable or fruit to purchase that, when trimmed, provides the amount the recipe requires.
  - Use The Food Buying Guide for Child Nutrition Programs to determine the amount of product needed (as purchased) to yield the edible portion required for the recipe.
- Food Safety Guidelines
  - Include procedures designed to ensure the safe production and service of food. Indicate Hazard Analysis Critical Control Point (HACCP) information, if appropriate. Include the appropriate cooking temperature for any ingredients that require cooking and/or chilling and a final holding temperature. Critical Control Points (CCP) ensure the safe production and service of food. As applicable, include information about food allergens or developmental considerations (e.g., choking hazards for young children).

HANDOUT: BEAN TOSTADA USDA RECIPE FOR SCHOOLS

USDA United States Department of Agriculture

Bean Tostada
USDA Recipe for Schools

Creamy pinto beans combine with tomatoes, fresh bell peppers, cheese, and Mexican spices served on a crispy tostada.

NSLP/SBP CREDITING INFORMATION
2 tostadas provide

Legume as Meat Alternate: 2 oz equivalent meat/meat alternate, ⅛ cup red/orange vegetable, ¼ cup other vegetable, ⅛ cup additional vegetable, and 1 oz equivalent grains.

OR

Legume as Vegetable: 0.5 oz equivalent meat/meat alternate, ⅜ cup legume vegetable, ⅛ cup red/orange vegetable, ¼ cup other vegetable, ⅛ cup additional vegetable, and 1 oz equivalent grains.

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
Pinto beans, canned, low-sodium drained, rinsed	8 lb 8 oz	1 gal 2⅔ cups (2 No. 10 cans)	17 lb	2 gal 1 qt 1⅓ cups (4 No. 10 cans)	1 Pour beans, onions, peppers, and spices into a large food processor.
OR					
Pinto beans, dry, cooked (see Notes)	8 lb 8 oz	1 gal 2⅔ cups	17 lb	2 gal 1 qt 1⅓ cups (4 No. 10 cans)	
*Onions, fresh, chopped	2 lb 6 oz	1 qt 3½ cups	4 lb 12 oz	3 qt 3 cups	
*Fresh green bell peppers, diced	1 lb	3 cups	2 lb	1 qt 2 cups	
Chili powder		2 Tbsp		¼ cup	

Recipe: BeanTostada USDA Recipe for School

USDA United States Department of Agriculture

Bean Tostada

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
Cumin, ground		1 Tbsp 1½ tsp		3 Tbsp	
Paprika		1½ tsp		1 Tbsp	
Onion powder		1½ tsp		1 Tbsp	
Salt		1 tsp		2 tsp	
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp	
Black pepper, ground		2 tsp		1 Tbsp 1 tsp	
Water		1 qt		2 qt	**2** Pour water slowly in processor while bean mixture is puréeing on medium speed for 1–2 minutes until beans have a smooth consistency.
Tomato paste, canned, no-salt-added	14 oz	1½ cups (⅛ No. 10 can)	1 lb 12 oz	3 cups (¼ No. 10 can)	**3** Place puréed bean mixture and tomato paste in a large stock pot. Cook over medium heat covered for 15 minutes. Stir occasionally.
					4 Critical Control Point: Heat to 165 °F for at least 15 seconds.
Cilantro, fresh, chopped	2 oz	3½ cups	4 oz	1 qt 3 cups	**5** Remove from heat and fold in cilantro.
					6 Critical Control Point: Hold for hot service at 135 °F or higher.
*Lettuce, fresh, shredded	2 lb 8 oz	3 qt 2 cups	5 lb	1 gal 3 qt	**7** For topping: Combine lettuce and tomatoes. Toss lightly. Set mixture aside for step 12.
*Tomatoes, fresh, chopped	1 lb 6 oz	3 cups	2 lb 12 oz	1 qt 2 cups	
Cheddar cheese, reduced-fat, shredded	1 lb 10 oz	1 qt 2½ cups	3 lb 4 oz	3 qt 1 cup	**8** Set cheese aside for step 13.
Whole-grain yellow corn tostada shells (½ oz each)	2 oz	100 each	4 oz	200 each	**9** Assembly (2 tostadas per serving):
					10 First layer: Using a No. 16 scoop, spread ¼ cup (about 2½ oz) bean mixture on each tostada shell.

USDA United States Department of Agriculture

Bean Tostada

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
					11 Transfer bean-topped tostadas to a sheet pan (18" x 26" x 1") lined with parchment paper. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
					12 Second layer: Using a No. 10 scoop, divide equally between two tostadas, ⅜ cup (about 1½ oz) lettuce and tomato mixture on top of bean mixture.
					13 Third layer: Using a rounded No. 30 scoop, divide equally between two tostadas, 2 Tbsp ½ tsp (about ½ oz) shredded cheese on top of lettuce and tomato mixture. OR Instruct students to "build" their own tostadas.
					14 Serve each student: 2 bean-topped tostadas; ⅜ cup (about 1½ oz; use No. 10 scoop) lettuce and tomato mixture in individual souffle cups; 2 Tbsp ½ tsp (about ½ oz; use a rounded No. 30 scoop) shredded cheese in individual soufflé cups.

Recipe: BeanTostada USDA Recipe for School

USDA United States Department of Agriculture

Bean Tostada

NUTRITION INFORMATION
For 2 tostadas.

NUTRIENTS	AMOUNT
Calories	**246**
Total Fat	**9 g**
Saturated Fat	3 g
Cholesterol	8 mg
Sodium	**437 mg**
Total Carbohydrate	**35 g**
Dietary Fiber	7 g
Total Sugars	3 g
Added Sugars included	N/A
Protein	**11 g**
Vitamin D	2 IU
Calcium	236 mg
Iron	2 mg
Potassium	351 mg

N/A=data not available.

SOURCE
USDA Standardized Recipes Project.

MARKETING GUIDE

Food as Purchased for	50 Servings	100 Servings
Mature onions	2 lb 12 oz	5 lb 8 oz
Green bell peppers	1 lb 4 oz	2 lb 8 oz
Lettuce	3 lb 6 oz	6 lb 12 oz
Tomatoes	1 lb 10 oz	3 lb 4 oz

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.
How to Cook Dry Beans
Special tip for preparing dry beans:
SOAKING BEANS
OVERNIGHT METHOD: Add 1¾ qt cold water to every 1 lb of dry beans. Cover and refrigerate overnight. Discard the water. Proceed with recipe.
QUICK-SOAK METHOD: Boil 1¾ qt of water for each 1 lb of dry beans. Add beans and boil for 2 minutes. Remove from heat and allow to soak for 1 hour. Discard the water. Proceed with recipe.
COOKING BEANS
Once the beans have been soaked, add 1¾ qt water for every 1 lb of dry beans. Boil gently with lid tilted until tender, about 2 hours. Use hot beans immediately.
Critical Control Point: Hold for hot service at 140 °F or higher.
OR
Chill for later use.
Critical Control Point: Cool to 70 °F within 2 hours and to 40 °F or lower within 4 hours.
1 lb dry pinto beans = about 2⅜ cups dry or 5¼ cups cooked beans.

YIELD/VOLUME

50 Servings	100 Servings
About 14 lb (bean mixture)	About 28 lb (bean mixture)
About 1 gal 3 qt (bean mixture)/100 tostadas	About 3 gal 2 qt (bean mixture)/200 tostadas

KEY MESSAGES

- In summary, we reviewed the important elements of a standardized recipe, including the recipe title and description, ingredients, units of measure, preparation directions, cooking and preparation time, serving size, recipe yield, equipment and utensils needed, crediting information, nutrient analysis, marketing guide, and food safety guidelines.
- We also discussed the importance of specificity in ingredients, quantities, and preparation techniques and the need to include food safety guidelines (CCPs) to ensure the safe production and service of food.
- By following standardized recipes, we can create delicious and nutritious meals while ensuring the safety and well-being of our children.

INSTRUCTOR'S NOTE:
Ask if there are any questions.

MISE EN PLACE
(15 MINUTES)

TIME	TOPIC	TASK	MATERIALS
MISE EN PLACE			
OBJECTIVE: ○ Identify how to develop a mise en place schedule for efficient food production.			
15 Minutes	Mise en Place	○ Review how to make a mise en place list	○ Training Manual ○ Handout: Mise en Place ○ Handout: Mise en Place (Template) ○ Recipe: Bean Tostada USDA Recipe for Schools

LESSON OVERVIEW

○ This portion of the training describes a French culinary term called “mise en place,” meaning “everything in it place.” It involves prepping and organizing all the ingredients and equipment needed for a recipe before beginning to cook. In child nutrition kitchens, mise en place is important because it makes cooking more efficient, ensures consistent and high-quality meals, and helps to keep the kitchen safe. This training reviews the six steps for developing a mise en place list and how each step is applied as part of the mise en place approach to recipe preparation, including reviewing recipes and production records, prioritizing work, collecting tools, preparing equipment, gathering recipe ingredients, preparing ingredients, and setting up your work station. This training will also discuss how to use each step effectively.

DISCUSS

○ Mise en place is a French culinary term meaning “everything in its place.” It refers to the practice of prepping and organizing all the ingredients and equipment needed for a recipe before beginning to cook. In child nutrition kitchens, mise en place is crucial for several reasons.

- Mise en place allows for greater efficiency in the kitchen. Prepping and organizing all the ingredients for the recipes you will be preparing makes cooking more streamlined and less disorderly.
- Mise en place helps ensure the meals served are consistent and high-quality. Measuring ingredients and preparing them in advance reduces the risk of overcooking, undercooking, or adding too much or too little of a particular ingredient. Meals are more likely to be nutritious and tasty, which is especially important in child nutrition kitchens, where the goal is to provide healthy meals to support the growth and development of children.
- Mise en place helps ensure kitchen safety. Preparing and organizing all the ingredients and equipment ahead of time significantly reduces the risk of accidents. For example, if knives are not laid out and ready to use, someone might need to look for them while cooking, which can lead to a potential injury.
- Mise en place allows you to check all the equipment that will be used in the recipe’s preparation is available and in good working order.

- Review the **Mise en Place** handout and engage participants in a discussion about how to use each step. There are six steps for utilizing the mise en place approach:
  1. Review recipes and production records.
  2. Prioritize your work.
  3. Collect tools and prepare equipment.
  4. Gather recipe ingredients.
  5. Prepare ingredients.
  6. Set up your workstation.

INSTRUCTOR'S NOTE:

Make this part of the training engaging for everyone involved. We suggest stating, "To make this portion of the training fun and interesting, we need your help! We want volunteers to help us identify important information in our **Mise en Place** handout. Then, we will discuss each step and ask for examples of using it in our work. By correctly preparing our cooking area, we can ensure our food is safe, tasty, and healthy. So, let's work together to become experts in mise en place!"

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 produciton 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

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DISCUSS

- Utilizing a mise en place helps create an economy of motion (walking several times to the stock room or refrigerator to collect ingredients)—eliminates wasted motion, eases operator tasks, reduces fatigue, and minimizes cumulative trauma for repetitive use of muscle groups.
- An "economy of motion" means doing tasks in the most efficient way possible, using the fewest steps and movements. For school nutrition workers, it's like preparing and serving meals using the quickest and simplest methods without wasting energy or time.

REVIEW

- Review the Mise en Place List (Template).
  - This tool helps you make a list of everything you need before cooking. You do not have to use the example provided, but it can be helpful.
  - Each column has a heading that indicates the information needed.

Ingredients and Preparation Steps

In the first column, identify the type of prep and the ingredients you need for the recipes you will be preparing. This step will help you identify where items are stored and the ingredients you need.

Quantity Needed

In the second column, indicate the quantity of each ingredient you need to use for the step. The Marketing Guide on the recipe can help you know how much of the product you should use for the step.

Equipment Needed

In this column, include all the tools, pans, and equipment you need to prepare and serve the recipe.

Team Member

In this column, indicate who is responsible for each step. This is helpful if more than one staff member will be contributing to making the recipe.

INSTRUCTOR'S NOTE:

This section includes the **Bean Tostada USDA Recipe for Schools** and **Mise en Place List (SAMPLE)**. The sample highlights how similar tasks are combined to prepare the ingredients prior to production. The sample also includes the equipment, pans, and tools needed to cook and serve the recipe.
Review with the participants the **Mise en Place List (Template), Bean Tostada USDA Recipe for Schools,** and **Mise en Place List (SAMPLE)** handouts.
Discuss how you, the instructor, have used mise en place successfully in your operation(s).

HANDOUT: MISE EN PLACE LIST (TEMPLATE)

Mise en Place* List (Template)			
Recipe Name/Servings:			
INGREDIENTS AND PREPARATION STEPS	**QUANTITY NEEDED**	**EQUIPMENT NEEDED**	**TEAM MEMBER**

*Mise en place: This allows participants to plan their recipe preparation method and ingredients efficiently

RECIPE: BEAN TOSTADA USDA RECIPE FOR SCHOOLS

USDA United States Department of Agriculture

Bean Tostada
USDA Recipe for Schools

Creamy pinto beans combine with tomatoes, fresh bell peppers, cheese, and Mexican spices served on a crispy tostada.

NSLP/SBP CREDITING INFORMATION

2 tostadas provide

Legume as Meat Alternate: 2 oz equivalent meat/meat alternate, ⅛ cup red/orange vegetable, ¼ cup other vegetable, ⅛ cup additional vegetable, and 1 oz equivalent grains.

OR

Legume as Vegetable: 0.5 oz equivalent meat/meat alternate, ⅜ cup legume vegetable, ⅛ cup red/orange vegetable, ¼ cup other vegetable, ⅛ cup additional vegetable, and 1 oz equivalent grains.

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
Pinto beans, canned, low-sodium drained, rinsed	8 lb 8 oz	1 gal 2⅔ cups (2 No. 10 cans)	17 lb	2 gal 1 qt 1⅓ cups (4 No. 10 cans)	1 Pour beans, onions, peppers, and spices into a large food processor.
OR					
Pinto beans, dry, cooked (see Notes)	8 lb 8 oz	1 gal 2⅔ cups	17 lb	2 gal 1 qt 1⅓ cups (4 No. 10 cans)	
*Onions, fresh, chopped	2 lb 6 oz	1 qt 3½ cups	4 lb 12 oz	3 qt 3 cups	
*Fresh green bell peppers, diced	1 lb	3 cups	2 lb	1 qt 2 cups	
Chili powder		2 Tbsp		¼ cup	

USDA United States Department of Agriculture

Bean Tostada

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
Cumin, ground		1 Tbsp 1½ tsp		3 Tbsp	
Paprika		1½ tsp		1 Tbsp	
Onion powder		1½ tsp		1 Tbsp	
Salt		1 tsp		2 tsp	
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp	
Black pepper, ground		2 tsp		1 Tbsp 1 tsp	
Water		1 qt		2 qt	**2** Pour water slowly in processor while bean mixture is puréeing on medium speed for 1–2 minutes until beans have a smooth consistency.
Tomato paste, canned, no-salt-added	14 oz	1½ cups (⅛ No. 10 can)	1 lb 12 oz	3 cups (¼ No. 10 can)	**3** Place puréed bean mixture and tomato paste in a large stock pot. Cook over medium heat covered for 15 minutes. Stir occasionally.
					4 Critical Control Point: Heat to 165 °F for at least 15 seconds.
Cilantro, fresh, chopped	2 oz	3½ cups	4 oz	1 qt 3 cups	**5** Remove from heat and fold in cilantro.
					6 Critical Control Point: Hold for hot service at 135 °F or higher.
*Lettuce, fresh, shredded	2 lb 8 oz	3 qt 2 cups	5 lb	1 gal 3 qt	**7** For topping: Combine lettuce and tomatoes. Toss lightly. Set mixture aside for step 12.
*Tomatoes, fresh, chopped	1 lb 6 oz	3 cups	2 lb 12 oz	1 qt 2 cups	
Cheddar cheese, reduced-fat, shredded	1 lb 10 oz	1 qt 2½ cups	3 lb 4 oz	3 qt 1 cup	**8** Set cheese aside for step 13.
Whole-grain yellow corn tostada shells (½ oz each)	2 oz	100 each	4 oz	200 each	**9** Assembly (2 tostadas per serving):
					10 First layer: Using a No. 16 scoop, spread ¼ cup (about 2½ oz) bean mixture on each tostada shell.

USDA United States Department of Agriculture

Bean Tostada

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
					11 Transfer bean-topped tostadas to a sheet pan (18" x 26" x 1") lined with parchment paper. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
					12 Second layer: Using a No. 10 scoop, divide equally between two tostadas, ⅜ cup (about 1½ oz) lettuce and tomato mixture on top of bean mixture.
					13 Third layer: Using a rounded No. 30 scoop, divide equally between two tostadas, 2 Tbsp ½ tsp (about ½ oz) shredded cheese on top of lettuce and tomato mixture. OR Instruct students to "build" their own tostadas.
					14 Serve each student: 2 bean-topped tostadas; ⅜ cup (about 1½ oz; use No. 10 scoop) lettuce and tomato mixture in individual souffle cups; 2 Tbsp ½ tsp (about ½ oz; use a rounded No. 30 scoop) shredded cheese in individual soufflé cups.

Bean Tostada

USDA United States Department of Agriculture

NUTRITION INFORMATION
For 2 tostadas.

NUTRIENTS	AMOUNT
Calories	**246**
Total Fat	**9 g**
Saturated Fat	3 g
Cholesterol	8 mg
Sodium	**437 mg**
Total Carbohydrate	**35 g**
Dietary Fiber	7 g
Total Sugars	3 g
Added Sugars included	N/A
Protein	**11 g**
Vitamin D	2 IU
Calcium	236 mg
Iron	2 mg
Potassium	351 mg

N/A=data not available.

SOURCE
USDA Standardized Recipes Project.

MARKETING GUIDE

Food as Purchased for	50 Servings	100 Servings
Mature onions	2 lb 12 oz	5 lb 8 oz
Green bell peppers	1 lb 4 oz	2 lb 8 oz
Lettuce	3 lb 6 oz	6 lb 12 oz
Tomatoes	1 lb 10 oz	3 lb 4 oz

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.
How to Cook Dry Beans
Special tip for preparing dry beans:
SOAKING BEANS
OVERNIGHT METHOD: Add 1¾ qt cold water to every 1 lb of dry beans. Cover and refrigerate overnight. Discard the water. Proceed with recipe.
QUICK-SOAK METHOD: Boil 1¾ qt of water for each 1 lb of dry beans. Add beans and boil for 2 minutes. Remove from heat and allow to soak for 1 hour. Discard the water. Proceed with recipe.
COOKING BEANS
Once the beans have been soaked, add 1¾ qt water for every 1 lb of dry beans. Boil gently with lid tilted until tender, about 2 hours. Use hot beans immediately.
Critical Control Point: Hold for hot service at 140 °F or higher.
OR
Chill for later use.
Critical Control Point: Cool to 70 °F within 2 hours and to 40 °F or lower within 4 hours.
1 lb dry pinto beans = about 2⅜ cups dry or 5¼ cups cooked beans.

YIELD/VOLUME

50 Servings	100 Servings
About 14 lb (bean mixture)	About 28 lb (bean mixture)
About 1 gal 3 qt (bean mixture)/100 tostadas	About 3 gal 2 qt (bean mixture)/200 tostadas

HANDOUT: MISE EN PLACE LIST (SAMPLE)

Mise en Place* List (SAMPLE)			
Recipe Name/Servings: Bean Tostada – 100 Servings			
INGREDIENTS AND PREPARATION STEPS	**QUANTITY NEEDED**	**EQUIPMENT NEEDED**	**TEAM MEMBER**
Knife Work Onion, chopped Pepper, green bell, diced Cilantro, chopped Lettuce, shredded Tomato, diced	Onions, raw – 5.5 lb Bell Pepper – 2.5 lb Cilantro – 2 bunch Lettuce – 6.75 lb Tomato, raw – 3.25 lb	Colander, knife, cutting board, anti-slip mat, food processor, food pans	John
Spice Mix Chili powder Cumin Paprika Onion powder Salt Garlic powder Black pepper	Chili powder – ¼ cup Cumin – 3 Tbsp Paprika – 1 Tbsp Onion powder – 1 Tbsp Salt – 2 tsp Garlic powder – 3 Tbsp Black pepper – 1 Tbsp, 1 tsp	Measuring spoons and cups, mixing bowl, whisk	Sarah
Canned Product Pinto beans, drained Tomato paste	#10 can, Pinto Beans – 4 ea #10 can, Tomato Paste – 1 ea	Can opener, scale, colander, food pans, spatula	Sarah
Water	2 qt	Liquid measure, 2 qt	John
Cooler Cheddar, shredded	Cheese – 3.25 lb	Scale, soufflé cups	Sarah
Dry Storage Tostada Shells	Tostada Shells – 200 ea		Sarah
Production and Serving		Stockpot 4 Sheet trays Parchment paper No. 16 Scoop No 10 Scoop No. 30 Scoop (2 ea)	Sarah

*Mise en place: This allows participants to plan their recipe preparation method and ingredients efficiently

KEY MESSAGES

- Mise en place is crucial in child nutrition kitchens because it helps ensure workplace safety, increases efficiency in the kitchen, and ensures that meals are consistent and of high quality when following a standardized recipe.
- By implementing mise en place, child nutrition kitchens can operate more efficiently, providing healthy and nutritious meals to the children they serve.

CLASS DISCUSSION PROMPT

Question: Is anyone using mise en place lists in their school kitchens? Will you share what works best for you?

Possible Answer: Answers may vary.

INSTRUCTOR'S NOTE:

Ask if there are any questions.

WEIGHT VS. VOLUME
(20 MINUTES)

TIME	TOPIC	TASK	MATERIALS
WEIGHT VERSUS VOLUME			
OBJECTIVES: ○ Apply the use of basic units of measurement. ○ Explain the benefits of using weight and volume properly.			
20 Minutes	Weight Versus Volume	○ Review units of measure ○ Identify the proper tools to utilize for accurate measuring	○ Training Manual ○ Instructor's Preparation Guide

LESSON OVERVIEW

- This lesson will teach you the importance of:
  - Measuring and weighing ingredients correctly.
  - Using the appropriate tool(s) to measure and weigh ingredients.
  - Using and caring for a scale.
- This training is designed to help participants feel more confident when measuring and weighing ingredients in the kitchen. It teaches the basics of measurement and explains why it is important to measure properly. This training also covers choosing the right equipment for measuring and serving, how to take care of the equipment and how to control portions effectively.

WEIGHT VERSUS VOLUME EXPLAINED

- In culinary measurements, there are two main types of measurements: weight and volume. Weight is a measure of the mass of an ingredient, while volume is a measure of the space an ingredient occupies.
- Weight measurements are typically used for dry ingredients (when measuring more than one cup) like flour, sugar, and spices, while volume measurements are used for liquid ingredients like water, milk, and oil.
- Measuring dry goods with a measuring cup or measuring spoon should be reserved for small quantities of ingredients.
- In the U.S. Customary system of measuring, weight is measured in ounces, pounds, and tons, while volume is measured in teaspoons, tablespoons, cups, quarts, and gallons.
- It is important to note that weight and volume are not always interchangeable. For example, one cup of flour and one cup of water have the same volume but not the same weight. A cup of flour weighs less than a cup of water because flour is less dense than water.

- When following a recipe, it is important to use the correct type of measurement (weight or volume) for the ingredient being measured and to convert between units of measure as necessary. Using the correct type of measurement ensures that the recipe turns out as intended and that the flavors and textures are balanced.

CLASS DISCUSSION PROMPT

Question: How does the measurement method impact a recipe's accuracy and consistency?

Possible Answer: Inaccurate measurements can lead to a finished product that is either too dry, too moist, or has an improper balance of flavors, which can significantly impact the dish's quality.

DEMONSTRATE/DISCUSS

- Review how to use measuring tools.
- Taring (also known as zeroing) a scale means resetting the scale to zero, so you can measure the weight of an item without including the weight of the container it is in.

INSTRUCTOR'S NOTE:

Review the types of equipment used to measure ingredients.

- Scales – Mechanical and Digital
- Measuring Spoons and Dry Measuring Cups
- Liquid Measuring Cups

HOW TO TARE A MECHANICAL SCALE

1. Place the empty container or item you want to weigh on the scale.
2. Adjust the scale's pointer or knob until the scale reads zero.
3. Remove the ingredient and container from the scale—it should still read zero. If it does not, adjust it again until it does.
4. Now you can add the ingredient to the container on the scale, and it will give you an accurate weight of only that material without including the weight of the container.

HOW TO TARE A DIGITAL SCALE

1. Turn on the scale and wait for it to zero out. Press the "tare" or "zero" button if it does not automatically zero.
2. Place the container you want to use on the scale. Ensure it is empty and dry, so you do not include extra weight.
3. Press the "tare" or "zero" button. The scale should now show a weight of zero with the container on it.
4. Add the ingredient to the container. The scale will show the item's weight without including the weight of the container.
5. Remove the ingredient and container from the scale when done weighing. The scale should automatically return to zero. If it does not return to zero, press the "tare" or "zero" button again.

HOW TO PROPERLY CARE FOR A SCALE

1. Only pick up and carry from the base.
2. Use a barrier (such as a bowl or parchment paper) between food items and the weighing platform.
3. Do NOT submerge in water.
4. Clean with brush or damp rag, if needed.

How to Measure Dry Ingredients

1. Find the measuring cup or spoon size(s) you need for the dry ingredient.
2. Double check that the measurement matches the amount needed in the recipe.
3. Fill the measuring cup or spoon with the dry ingredient, such as corn meal or sugar, until overflowing.
4. Use a straight edge, like the back of a knife or a spatula, to level off the top of the measuring cup or spoon so the ingredient is even with the rim. Do this over the ingredient container so the excess is not wasted.
5. Add the ingredient to the appropriate container based upon recipe instructions.
6. Repeat steps 2–5 for additional ingredients as needed.

How to Use the Fluff and Spoon Method for Measuring Flour

1. Fluff the flour: Fluff the flour by stirring it with a spoon or a fork to loosen it up and break up any clumps. If the recipe calls for sifted flour, you should sift it before measuring it.
2. Spoon the flour: Using a spoon, gently scoop the flour into the measuring cup, taking care not to pack it down. Keep adding flour until the cup overflows.
3. Level the flour: Use the flat edge of a knife or a straight spatula to level off the top of the measuring cup, so the flour is even with the rim.
4. Use as directed: Once you measure the flour, use it in your recipe as directed.

How to Measure Liquid Ingredients

1. Find the liquid measuring cup or container size(s) you need for the recipe. Liquid measuring cups and containers have measurements marked on the side.
2. Place the container on a flat surface and pour the liquid ingredient into it slowly, making sure not to spill. Keep pouring until the liquid ingredient reaches the desired measurement on the container. To get an accurate measurement, you need to look at the meniscus.
3. The meniscus is the curved surface of the liquid that forms at the top of the container. It occurs because of the surface tension between the liquid and the container. To get an accurate measurement, you need to look at the bottom of the meniscus where it meets the measurement line on the container. Make sure your eyes are level with the measurement line to avoid errors. Once you have the correct measurement, you can use the liquid ingredient for your recipe.

Class Discussion Prompt

Question: Why must we tare (or zero) a scale before weighing food items?

Possible Answers:

- Taring or zeroing a scale before weighing food items is important because it ensures that the weight displayed on the scale is accurate and only includes the weight of the item being weighed.
- Taring the scale sets the weight reading to zero, effectively subtracting the weight of the container or plate. This step allows you to weigh the food item accurately without manually subtracting the weight of the container or plate from the total weight.

Instructor's Note:
Ask if there are any questions.

PORTIONING
(5 MINUTES)

TIME	TOPIC	TASK	MATERIALS
PORTIONING			
OBJECTIVES: ○ Select the correct tools and equipment for measuring and serving. ○ Apply best practices for portion control.			
5 Minutes	Portion Control	○ Review portion control benefits ○ Review portion control tools	○ Training Manual ○ Handout: Basics-at-a-Glance

LESSON OVERVIEW

- Serving the correct portion size of each food to students is just as important as correctly weighing and measuring the ingredients in a recipe. Portioning refers to serving the specific amount of food per serving listed in a recipe. Proper portion control is essential for customer satisfaction because people compare the portions on each other's plates. It also guarantees that students receive the right quantity of food or nutrients needed, ensuring a reimbursable meal is served. Correct portioning is imperative and must be followed precisely to guarantee that an item meets the minimum required amount to be creditable for a meal component. Proper portioning also helps the program achieve nutritional accountability and maintain the right amount of nutrients for children of different ages. Portion control benefits the program by helping to control food costs, minimize food waste, and minimize last-minute substitutions due to running out of food items on the line.

DISCUSS

- Equally as important as ensuring you have the correct amount of ingredients in your recipe is ensuring you are serving the correct portion size to your students.
- Portioning means serving the correct portion size. It is the amount of food per serving specified on the recipe and production record.

INSTRUCTOR'S NOTE:
Use the questions below to engage participants in a conversation about the importance of proper portioning. Below each question is information to help guide the discussion.

- **Question:** How can proper portion control help with customer satisfaction?
  - When students see that one person has more food on their plate than another, the person with less might feel upset or unfairly treated.
  - Portion control means giving customers the right amount of food, so they do not get too much or too little. Accurate portioning is important when making meals that are repeated regularly. When you serve the right amount, everyone gets what they expect, and nobody feels disappointed.
- **Question:** How does proper portion control help ensure a reimbursable meal is served?
  - It guarantees that students receive the planned quantity of food and nutrients.
  - Proper portioning helps the program achieve and maintain nutritional accountability on service lines. USDA meal requirements require children of different ages receive different amounts of food to get adequate nutrients needed at lunch and breakfast.
  - Portioning with the correct serving utensil will ensure the required amount of the meal component is served in a reimbursable meal.
- **Question:** How does portion control benefit the program by helping to control food costs?
  - Allows for more accurate forecasting when the number of meals served and the number of leftovers/wastes coincides with the number of meals prepared.
  - Minimizes food waste.
  - Minimizes last-minute substitutions.

DISCUSS

- A portion control tool is a serving utensil that measures the amount of food.
- Examples of portioning tools:
  - **Slicers:** used for cutting consistent thickness. Slicers measure the thickness of a slice of food product
  - **Scales:** used to determine the weight of portions
  - **Scoops and Spoodles:** measure different serving sizes and are numbered to differentiate the sizes, such as #8 (1/2 cup), #16 (1/4 cup), etc.
  - **Ladles:** used for serving liquid items such as soups, gravies, sauces, stews, and creamed foods
  - **Slotted, Pierced, or Perforated Spoodles:** important for serving foods prepared in liquid that you do not want to add to the portion. Examples: green beans, corn, peas, stewed fruits
  - **Measuring Cups:** used for measuring liquid and dry goods of a standardized recipe
- If a tool does not measure, it is not a portioning tool. For example, tongs and turners are not portion control tools. When using these tools, check your recipe and production record to identify the portion by quantity. Examples include chicken nuggets, burritos, chicken legs, and other items that require an indication of “each” or how many of each item to serve. Chicken nuggets may be listed on a production record indicating a reimbursable serving is 5 each or 5 nuggets.
- To assist in identifying the correct tool, ICN has a valuable tool, **Basics at a Glance**, to help you and your team with weight, volume, and portioning challenges.
- Quickly review each section of the **Basics at a Glance** poster.

- Highlight smallwares used for accurate portion control:
  - Scoops (Dishers)
  - Spoodle
  - Ladles

The size marked on the serving tool usually tells you how much it can hold. Sometimes, the tool's size doesn't match its actual volume, so double-check with the maker to be sure.

KEY MESSAGE

- The most important reasons for correct portion control are:
  - Customer satisfaction
  - Serving the required amount of each component in a reimbursable meal
  - Controlling food costs
  - Ensuring food served meets school nutrition standards

CLASS DISCUSSION PROMPT

Question: Why is proper portioning of food items important in child nutrition programs?

Possible Answer: Proper portioning helps ensure that children receive the appropriate amount of nutrients they need for their age and developmental stage. It also ensures that the correct amount of each component is served for reimbursable meals, as reflected in the production records.

INSTRUCTOR'S NOTE:
Ask if there are any questions.

HANDOUT: BASICS AT A GLANCE

Basics at a Glance

Recipe Abbreviations

approx.	=	approximate
tsp or t	=	teaspoon
Tbsp or T	=	tablespoon
c	=	cup
pt	=	pint
qt	=	quart
gal	=	gallon
wt	=	weight
oz	=	ounce
lb or #	=	pound (e.g., 3#)
g	=	gram
kg	=	kilogram
vol	=	volume
mL	=	milliliter
L	=	liter
fl oz	=	fluid ounce
No. or #	=	number (e.g., #3)
in. or "	=	inches (e.g., 12")
°F	=	degree Fahrenheit
°C	=	degree Celsius or centigrade

Volume Equivalents for Liquids

60 drops	= 1 tsp	
1 Tbsp	= 3 tsp	= 0.5 fl oz
1/8 cup	= 2 Tbsp	= 1 fl oz
1/4 cup	= 4 Tbsp	= 2 fl oz
1/3 cup	= 5 Tbsp + 1 tsp	= 2.65 fl oz
3/8 cup	= 6 Tbsp	= 3 fl oz
1/2 cup	= 8 Tbsp	= 4 fl oz
5/8 cup	= 10 Tbsp	= 5 fl oz
2/3 cup	= 10 Tbsp + 2 tsp	= 5.3 fl oz
3/4 cup	= 12 Tbsp	= 6 fl oz
7/8 cup	= 14 Tbsp	= 7 fl oz
1 cup	= 16 Tbsp	= 8 fl oz
1/2 pint	= 1 cup	= 8 fl oz
1 pint	= 2 cups	= 16 fl oz
1 quart	= 2 pt	= 32 fl oz
1 gallon	= 4 qt	= 128 fl oz

Equivalent Weights

16 oz	= 1 lb	= 1.000 lb
12 oz	= 3/4 lb	= 0.750 lb
8 oz	= 1/2 lb	= 0.500 lb
4 oz	= 1/4 lb	= 0.250 lb
1 oz	= 1/16 lb	= 0.063 lb

Scoops (Dishers)

Size/No.[1]	Level Measure	Color Code[2]
6	2/3 cup	
8	1/2 cup	
10	3/8 cup	
12	1/3 cup	
16	1/4 cup	
20	3-1/3 Tbsp	
24	2-2/3 Tbsp	
30	2 Tbsp	
40	1-2/3 Tbsp	
50	3-3/4 tsp	
60	3-1/4 tsp	
70	2-3/4 tsp	
100	2 tsp	

[1] Scoops are left or right hand or squeeze-type that can be used for both hands. Number on the scoop indicates how many level scoopfuls make one quart. For example, eight No. 8 scoops = 1 quart.

[2] Use colored dots matching the brand-specific color coding of scoop sizes.

Ladles Portion Servers

Ladle fl oz	Appox. Measure	Portion Server fl oz
1 oz	1/8 cup	1 oz
2 oz	1/4 cup	2 oz
3 oz	3/8 cup	3 oz
4 oz	1/2 cup	4 oz
6 oz	3/4 cup	6 oz
8 oz	1 cup	8 oz
12 oz	1-1/2 cups	—

Ladles and portion servers (measuring-serving spoons that are volume-standardized) are labeled "oz." "Fl oz" would be more accurate since they measure volume, not weight.

Use ladles for serving soups, stews, creamed dishes, sauces, gravies, and other liquid products.

Use portion servers (solid or perforated) for portioning solids and semi-solids such as fruits and vegetables, and condiments.

Cooking or Serving Spoons

Solid Spoons

Perforated Spoons

Slotted Spoons

Spoons vary in length (11", 13", 15", 18", 21") for ease of use in cooking or serving. Spoons can have plastic handles that are heat-resistant. Level scoops, ladles, and portion servers provide more accurate portion control than serving spoons that are not volume-standardized measure.

Specialty Spoons

A thumb notch on a server or spoon handle prevents the spoon from slipping into the pan and prevents hands from sliding into the food. Triple-edge (solid or perforated) spoons have a flat edge that increases the area where the spoon touches the bottom of the pan when stirring.

Fraction to Decimal Equivalents

1/8	= 0.125
1/4	= 0.250
1/3	= 0.333
3/8	= 0.375
1/2	= 0.500
5/8	= 0.625
2/3	= 0.666
3/4	= 0.750
7/8	= 0.875

Metric Equivalents by Weight

Customary Unit (avoirdupois)	**Metric Unit**
Ounces (oz)	**Grams (g)**
1 oz	= 28.35 g
4 oz	= 113.4 g
8 oz	= 226.8 g
16 oz	= 453.6 g
Pounds (lb)	**Grams (g)**
1 lb	= 453.6 g
2 lb	= 907.2 g
Pounds (lb)	**Kilograms (kg)**
2.2 lb	= 1 kg (1000 g)

Metric Equivalents by Volume

Customary Unit (fl oz)	**Metric Unit**
1 cup (8 fl oz)	= 236.59 mL
1 quart (32 fl oz)	= 946.36 mL
1.5 quarts (48 fl oz)	= 1.42 L
33.818 fl oz	= 1.0 L

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Steamtable Pan Capacity

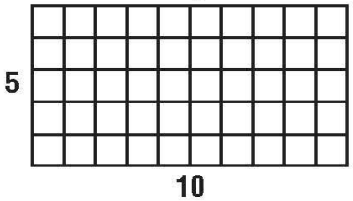
Pan Size	Approx. Capacity	Serving Size	Ladle (fl oz)	Scoop #	Approx. # Servings
12" x 20" x 2-1/2" 	2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	64 80 96 128
12" x 20" x 4" 	3-1/2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	112 135 168 224
12" x 20" x 6" 	5 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	160 200 240 320

Approximate Dimensions of Serving Sizes from Different Pan Sizes

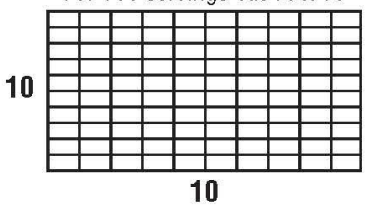
Pan	Approx. Size	No. and Approx. Size Servings per Pan		
		25	50	100
Baking or steamtable	12" x 20" x 2-1/2"	2" x 3-3/4"	2" x 2"	_ _ _ _ _
Sheet or bun	18" x 26" x 1"	3-1/4" x 5"	3-1/4" x 2-1/2"	1-3/4" x 2-1/2"

Cutting Diagrams for Portioning

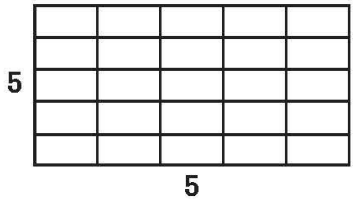
For 50 servings cut 5 x 10



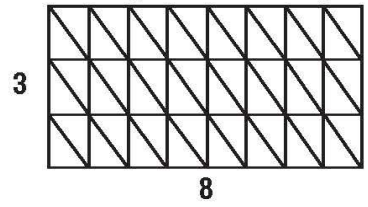
For 100 servings cut 10 x 10



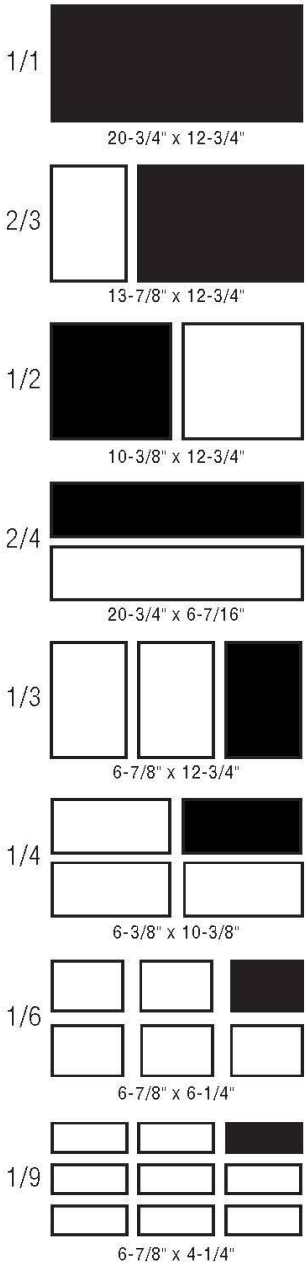
For 25 servings cut 5 x 5



For 48 servings cut 3 x 8 then diagonally



Other Pan Sizes



Steamtable or counter pans are available in various sizes. Smaller size pans may require the use of an adapter bar.

ACTIVITY: DEVELOPING A MISE EN PLACE LIST
(25 MINUTES)

INSTRUCTOR'S NOTE:
Distribute the **CICN Grab-and-Go Recipe** packets to each participant and have them get into their pairs/teams. The recipe packs are for the participants to keep.

TIME	TOPIC	TASK	MATERIALS
ACTIVITY: DEVELOPING A MISE EN PLACE LIST			
OBJECTIVE: ○ Develop a mise en place list using multiple recipes.			
25 Minutes	Activity	○ Develop a mise en place list	○ Training Manual ○ Grab-and-Go Recipe packet ○ Handout: Mise en Place List (Template) ○ Writing utensil

ACTIVITY OVERVIEW

- Participants will work in pairs to develop a mise en place list. Provide each team with two recipes to develop their list. After the teams have developed their lists, participants will reflect on their experience and share any challenges they faced during the activity. The instructor and fellow participants may suggest how to help overcome the challenges next time.
- Materials
  - Two CICN Grab-and-Go Recipes
  - Writing utensils
  - Mise en Place List (Template)

- Recipe Assignments
  - Teams 1 and 11
    - Backyard BBQ Chicken Salad
    - Bistro-Style Potato Salad
  - Teams 2 and 12
    - Chicken Fajita Salad
    - Chicken Salad Pita
  - Team 3
    - Chickpea Waldorf Salad
    - Cowboy Caviar
  - Team 4
    - Italian Ham Wrap
    - Italian Pasta Salad
  - Team 5
    - Mediterranean Cucumber Salad
    - Minty Melon Salad
  - Team 6
    - Overnight Oats with Berries
    - Red, White, and Blue Fruit Salad
  - Team 7
    - Sesame Ginger Slaw
    - Sesame Ginger Tuna Sandwich
  - Team 8
    - Southwest Caesar Salad
    - Sriracha Chicken Wrap
  - Team 9
    - Tangy Cucumber Salad
    - Vegetarian Greek Salad
  - Team 10
    - Thai-Style Salad with Chicken
    - Turkey Wrap with Cranberry Spread

- **Instructions:** In pairs, develop a mise en place list based on the recipes assigned to your team.

1. Ask participants to read the recipes and identify all the ingredients and equipment needed for each recipe. Have them write down each ingredient and piece of equipment on their **Mise en Place List (Template)**.
2. Once participants list all the ingredients and equipment needed, ask them to group the items based on where they are stored or used in the recipe. For example, all the dry ingredients could be grouped together, all the items used for prep work (tools, food, equipment, smallwares, containers, etc.) could be grouped together, and all the items used for cooking (stockpot, stovetop, etc.) could be grouped together.
3. Have participants review each group and determine if additional prep work is needed for each item. For example, if a recipe calls for diced onions, participants will add “chop onions” to their list of prep work.
4. Once participants have identified the necessary ingredients, equipment, and prep work for each recipe, ask them to create a mise en place list for each recipe. Participants should organize the list in the order that the items will be used in the recipe.
5. Have participants share their mise en place lists with the group and compare and discuss their different approaches.
6. Once the recipes are complete, have participants reflect on their experience creating the mise en place lists. Ask them to share any challenges they faced and any benefits they experienced.
7. Close the activity by emphasizing the importance of mise en place in the kitchen and encouraging participants to use this technique in their future cooking endeavors.

HANDOUT: MISE EN PLACE LIST (TEMPLATE)

Mise en Place* List (Template)			
Recipe Name/Servings:			
INGREDIENTS AND PREPARATION STEPS	**QUANTITY NEEDED**	**EQUIPMENT NEEDED**	**TEAM MEMBER**

*Mise en place: This allows participants to plan their recipe preparation method and ingredients efficiently

WRAP UP
(10 MINUTES)

TIME	TOPIC	TASK	MATERIALS
WRAP UP			
10 Minutes	Review the training	○ Review the training ○ Discuss implementation of skills	○ Training Manual ○ Handout: Application Action Plan ○ Handout: Reflections

DEMONSTRATE/DISCUSS

- ○ Today we learned some important tips for cooking that can make a big difference in the kitchen. These tips include using standardized recipes that are consistent and reliable, making a list of all the ingredients you need before starting to cook, using the correct measuring tools, and ensuring that your serving sizes are appropriate. By following these strategies, you can improve your cooking skills and make your meals taste even better.
- ○ We've discussed the following key points about Culinary Keystones:
  - A standardized recipe is your guide for accurately preparing menu items.
  - Using a standardized recipe in food production allows the program to yield the same results each time the recipe is prepared.
  - A best practice is to always review the recipe from beginning to end before preparation.
  - Mise en place is crucial in child nutrition kitchens because it helps to ensure workplace safety, increases efficiency in the kitchen, and ensures that meals are consistent and of high quality.
  - By implementing mise en place, child nutrition kitchens can operate more efficiently, providing healthy and nutritious meals to the children they serve.
  - Using the appropriate weighing and measuring tools and using them correctly is critical when preparing recipes.
  - The most important reasons for correct portion control are:
    - Customer satisfaction
    - Serving accurate reimbursable meals
    - Controlling food costs
    - Ensuring food served meets school nutrition standards
- ○ We know that learning is always enhanced if we are given a chance to personally relate to the material and how we might apply it.

APPLICATION ACTION PLANNING

- Direct participants to the **Application Action Plan** worksheet. Give participants about 5 minutes to fill in the answers for the three sections on the worksheet:
  - List the most useful knowledge and/or skills you gained during this training.
  - What are some steps you can take to apply what you have learned?
  - What barriers do you think you might face when trying to apply what you have learned at your job?

CLASS DISCUSSION PROMPTS

Now that we have concluded our final lesson, are there any questions?

- Spend 5 minutes (more if time allows) to allow participants to share what they wrote in their **Application Action Plan**, and as a group, offer suggestions for eliminating any perceived barriers they mention.
- Encourage participants to jot down ideas they may want to "borrow" from each other as they share their thoughts.
- Encourage participants to network and stay connected to share success stories and offer support.
- Encourage participants to spend some time thinking through what they have learned in this lesson. They can write some of their reflections in the **Reflections** page so they can come back to these thoughts later.

ICN has numerous 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.

APPLICATION ACTION PLAN

List the most useful knowledge and/or skills you gained during this training.

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?

REFLECTIONS

Instructions: Spend some time thinking through what you have learned in this lesson. Write some of your reflections here so you can come back to these thoughts later.

CONCLUSION
(10 MINUTES)

TIME	TOPIC	TASK	MATERIALS
WRAP UP			
10 Minutes	Training Evaluation	○ Conduct Training Evaluation ○ Conclude the training	○ Training Manual ○ Training Evaluation QR code

DISCUSS

- ○ Congratulate participants for completing the training.
- ○ Remind the participants to implement their new knowledge and skills through their Application Action Plans.
- ○ Ask participants to complete an evaluation of the training.

DEMONSTRATE/DISCUSS

- ○ Facilitate a question-and-answer session.
- ○ If a question is state-specific, direct participants to their State agency.
- ○ If a question needs further attention, direct participants to the ICN Help Desk.
- ○ Thank you for your participation today. Please visit the ICN website (www.theicn.org) for future training needs. ICN has several online trainings available through the ICN iLearn system.

INSTRUCTOR'S NOTE:
Thank the participants and the host site (if applicable) and conclude the training.

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Institute of Child Nutrition. (2018). *Practical skills for preparing quality meals: A five-step process*. University, MS: Author.

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APPENDIX

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 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 prior to 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 prior to 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 beats

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 in order 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 of time to destroy harmful micro-organisms

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 student-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 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

Sofritto – In Italy, sofrito is called soffritto (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 student-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.

For all demonstrations, please have your mise en place staged for quick access as you work through the various demonstrations. Time is limited, so being fully prepared before beginning the demos is essential.

NOTE: Please use the same knife and cutting board (as appropriate) throughout the training. A chef knife and cutting board are listed in most of the demo prep guides; using a new knife and board each time is not required. Clean, as appropriate, between tasks.

Emphasize the need to follow the site's recipes upon returning to work throughout the demos. Recommend the participants work with their menu planners and recipe developers to adjust the site's recipes (if needed) based on the lessons learned during the demonstrations.

The recipes used during the demos are for demonstration purposes only. They are not nutritionally analyzed nor credited for use in the National School Lunch Program (NSLP)/School Breakfast Program (SBP)/Child and Adult Food Care Program (CACFP).

Demo Name: How to Tare a Mechanical Scale

PREPARATION NOTES

Use a mechanical scale to demonstrate how to tare the scale. If there is a variety of mechanical scales at the site, demonstrate how to tare scales that differ in how they can be tared.

EQUIPMENT

- Mechanical scale

Demo Name: How to Tare a Digital Scale

PREPARATION NOTES

Use a mechanical scale to demonstrate how to tare the scale. Tare the scale without a food pan, and then tare the scale using a food pan, demonstrating how taring works with a food pan on the scale.

EQUIPMENT

- Digital scale
- Food pan

Demo Name: Review How to Properly Care for a Scale

PREPARATION NOTES
Review how to carry a scale at the base. Point out areas on the scale that will become damaged if they become wet.

EQUIPMENT
- Mechanical scale

Demo Name: Review How to Measure Dry Ingredients

PREPARATION NOTES
Review how to properly measure using a measuring cup. Stress that measuring dry goods with a measuring cup or measuring spoons should be reserved for small quantities of ingredients.

INGREDIENT
- Sugar

EQUIPMENT
- Measuring cup
- Straight edge

Demo Name: How to Use the Fluff and Spoon Method for Measuring Flour

PREPARATION NOTES
Review the steps of the fluff and spoon method for measuring flour. Stress that measuring dry goods with a measuring cup or measuring spoons should be reserved for small quantities of ingredients.

INGREDIENT
- Flour

EQUIPMENT
- Measuring cup
- Straight edge
- Spoon

Demo Name: How to Measure Liquid Ingredients

PREPARATION NOTES

Review how to measure using a liquid measure. Identify an area that is highly visible to conduct the demonstration. You may also invite participants to participate. Be sure to use a dark-colored fluid liquid, so the demonstration liquid has contrast for the participants to view.

INGREDIENT

- Soy sauce or other dark fluid liquid

EQUIPMENT

- Liquid measure

EQUIPMENT CHECKLIST

INSTRUCTOR'S NOTE:
At least 4 weeks prior to the training, contact the site coordinator to ensure the equipment is available. If any equipment is unavailable 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 Institute of Child Nutrition to ship 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.
SMALL KITCHEN TOOLS			
Digital Scale	1		
Mechanical Scale	1		
Measuring Cup	1		
Liquid Measure	1		
Spoon	1		
Food Pans	6		
Straight Edge	1		

SHOPPING LIST

INSTRUCTOR'S NOTE:
If certain ingredients are unavailable where you are training, use your best culinary judgment to find an alternative.

FOOD	TOTAL NEEDED	INVENTORY FROM PRIOR WORKSHOP	PURCHASED
INGREDIENTS			
Flour	1 small package		
Soy Sauce	1 small bottle		
Sugar	1 lb package		

The University of Mississippi
School of Applied Sciences
800-321-3054
www.theicn.org