Adjusting Standardized Recipes

CACFP iTrain Simple Lesson Plan

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Simple Lesson Plan

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Intended Audience: CACFP personnel and other child care staff
Description: This lesson explains the process to increase or decrease the yield of a standardized recipe to meet the needs of the CACFP's enrollment.

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Institute of Child Nutrition|
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Lesson-at-a-Glance

Time	Topic	Activity	Materials
Introduction			
5 minutes	▶ Introduction and Overview		▶ PowerPoint slide deck ▶ Computer ▶ Projector (if available) ▶ Pens or Pencils
Objective: Modify the yield of a standardized recipe to meet the needs of child care program enrollment.			
20 minutes	▶ Adjust standardized recipe: Increase ▶ Adjust standardized recipe: Decrease ▶ Convert mixed units to common units	▶ Recipe Adjustments	▶ Handout: Using Standardized Recipes ▶ Handout: Broccoli Bites recipe ▶ Handout: Recipe Adjustment Steps ▶ Culinary Measurement Conversions handout ▶ Worksheet: Recipe Adjustments ▶ Answer Key: Recipe Adjustments ▶ Calculators
Conclusion			
10 minutes	▶ Lesson Summary ▶ Training Evaluation	▶ Speed Action Planning ▶ Training Evaluation (Optional)	▶ Worksheet: Speed Action Planning ▶ Optional: Training Evaluation & Training Certificate
Total Time: 35 minutes			

References

Institute of Child Nutrition. (2016). *Basic culinary math for child nutrition professionals instructor's manual.* www.theicn.org/resources/118/basic-culinary-math-for-school-nutrition-professionals/106917/basic-culinary-math-instructors-manual.pdf

Institute of Child Nutrition. (2017). *Tools and tips for trainers: Why use standardized recipes?* University, MS: Author.

Internet Resources

- Institute of Child Nutrition: www.theicn.org
- My Kitchen Calculator: https://mykitchencalculator.com/kitchencalculator.html
- Team Nutrition Recipes and Cookbook Toolkit: www.fns.usda.gov/tn/team-nutrition-recipes-and-cookbook-toolkit
- USDA's Team Nutrition: https://www.fns.usda.gov/tn

Preparation Checklist

Instructions: Use the Preparation Checklist to prepare for the training session. Keep track of your progress by checking off tasks as they are completed.

Done ☑	Lesson Tasks
Gather Materials	
☐	▶ Training Script
☐	▶ Computer and Projector Screen
☐	▶ Worksheets and Handouts: • Using Standardized Recipes handout • Recipe Adjustment Steps handout • Culinary Measurement Conversions handout • Broccoli Bites recipe • Recipe Adjustment worksheet and answer key • Speed Action Planning worksheet
☐	▶ Pens or pencils (one per participant)
☐	▶ Calculator (one per three participants)
☐	▶ Optional: Training Certificate/Evaluation/Feedback Form (one per participant)
Prepare for Lesson	
	Before the training day:
☐	▶ Review the training script and research any relevant State or local requirements. • The content reflects the Federal regulations and/or national best practices or standards. However, it's essential to include any additional State or local requirements when presenting this training.
☐	▶ Make enough copies of the handouts for each participant.
☐	▶ Test the PowerPoint on the computer and projector screen.
☐	▶ Optional: Develop and print a session certificate/evaluation/feedback form (one per participant).
	On the training day:
☐	▶ Place pens or pencils on tables (one per participant).
☐	▶ Distribute materials to each participant.
	On the instructor's table:
☐	▶ Training Script
☐	▶ Instructor's copy of handouts and/or worksheets
☐	▶ Optional: Session Evaluation/Feedback Forms

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Training Script

Instructor's Note: Each section below has an accompanying slide(s). Review and share the content for each PowerPoint slide.

Introduction
Welcome! Complete the following tasks: ▶ Distribute the handouts to the participants. ▶ Welcome the participants to the training. ▶ Introduce yourself to the participants. Allow the participants to introduce themselves by sharing their name and one thing they would like to get from this training.
Standardized Recipe **Ask posing question:** What is a standardized recipe? **Share core content**: A standardized recipe has been tested several times. It produce the same good results and yield each time it is prepared as long as the: ▶ Exact procedures are followed ▶ Same type of equipment is used ▶ Ingredients are the same quality and in the same quantities **Handout:** Using Standardized Recipes
Yield and Standardized Recipes **Share core content:** A common source of USDA standardized recipes is the Child Nutrition Recipe Box found on the Institute of Child Nutrition's website. These recipes list the quantities of ingredients needed to make 25, 50, or 100 servings. For most child care settings, the number of servings will be different from the standard yield. Although there are many software tools for adjusting recipes, some may not provide an accurate result. Any recipe adjustment that is done with software needs to be tested for quality. Therefore, it is important to understand the process used to increase or decrease the ingredients in a standardized recipe.
Overview **Share core content:** This training describes the process for increasing and decreasing the recipe yield (number of servings). At the end of this training, the participants will be able to increase or decrease the yield of a standardized recipe to meet the needs of their child care program's enrollment.

Objective: Modify the yield of a standardized recipe to meet the needs of child care program enrollment.

Changing the Yield of a Standardized Recipe

Share core content: Adjusting standardized recipes to either increase or decrease the yield of a standardized recipe is a simple two-step process:

- Step 1: Determine the "multiplying factor"
- Step 2: Determine the new quantity for each ingredient using the multiplying factor

Handout: Recipe Adjustment Steps

Step 1: Determine the Multiplying Factor

Share core content: The first step is to determine the "multiplying factor."

The multiplying factor is determined by dividing the number of servings needed (new yield) by the number of servings listed in the original recipe (original yield).

Formula:
Number of servings (new yield) ÷ recipe's number of servings (original yield)

For example, an operator needs to prepare 35 servings and the recipe's yield is 25. Divide 35 by 25 to get a factor of 1.4. (35 ÷ 25 = 1.4)

Step 2: Determine the New Quantity of Each Ingredient

Share core content: To determine the new quantity of each ingredient in the recipe, take the original quantity of ingredient and multiply it by the multiplying factor to get the new quantity.

Using the same example, the original recipe for 25 servings calls for 3 cups of tomatoes. Multiply 3 cups of tomatoes by the 1.4 factor. The answer gives you 4.2 cups for the new yield for 35 servings. Round up 4.2 cups to 4.25 cups to give you 4 ¼ cups of tomatoes.

Convert Amounts to Common Units

Share core content: Some recipes may list ingredients in mixed units, such as 4 lb 12 oz or 1 qt 2 cups. Before using the multiplying factor in step 1, ingredients in mixed units should be converted to a common unit. This makes the calculation easier to do and more accurate.

For example, a recipe calls for 1 lb 8 oz of ground beef. Using the conversion table, it indicates 16 ounces equals 1 pound. This means that 8 ounces is equal to ½ pound (0.5 lb). Convert the entire amount to pounds.

1 lb 8 oz = 1 lb + 0.5 lb = 1.5 lb

A great tool for identifying a common unit is the My Kitchen Calculator. It allows you to identify a single unit by entering one of the units, and it will convert the amount to the common unit.

Handout: Culinary Measurement Conversions

Activity: Recipe Adjustments
Time: 10 minutes

- **Purpose:** The purpose of this activity is to practice the steps in increasing or decreasing the yield of a standardized recipe.
- **Materials Needed:** Broccoli Bites recipe sheet, Recipe Adjustment worksheet and answer key, calculators, and pencils
- **Instructions:** Divide the participants into two groups: Group A and Group B. Give everyone a copy of the Broccoli Bites recipe sheet and the Recipe Adjustment worksheet. Provide a few calculators to each group. Ask Group A to increase the yield of the broccoli in the recipe from 25 to 30 servings and Group B to decrease the yield of the cheddar cheese in the recipe from 25 to 15 servings. Allow 5–10 minutes for the participants to complete the activity. Then, use the answer key to review the activity with the participants.

Conclusion

Lesson Conclusion

Share core content: This training focused on:

- Using standardized recipes assures children will receive correct amounts of food for a reimbursable meal.
- Adjusting the yield of standardized recipes is a simple two-step process. Adjusting recipes will help provide the right number of servings to meet the needs of your child care program's enrollment.

Ask posing question: What questions do you have concerning standardized recipes?

Activity: Speed Action Planning
Time: 5 minutes

- **Purpose:** The purpose of this activity is to establish future steps for applying the information in their workplace.
- **Materials Needed:** Speed Action Planning worksheet, Planner or Cell Phone Calendar App, and Pencil/Pen
- **Instructions:** Distribute the Speed Action Worksheet. Inform participants that it is important to develop a plan for using the training's information. Ask them to take 1–2 minutes to answer the following three questions to establish an action plan.
  - What did you learn in this training?
  - How will you apply this information in your current or future role?
  - When will you apply this information?

Once the participants have finished, encourage them to save this goal to a planner, calendar app, or other sources to ensure they follow throug with their plan. Following this activity, dismiss the participants from the training.

Thank You!

Complete the following tasks:

- Conclude the training.
- Refer participants to the Institute of Child Nutrition for additional information at helpdesk@theicn.org or 800-321-3054.
- Distribute any certificates or evaluations.

Using Standardized Recipes

Standardized recipes are used every day in child nutrition operations as a guide to preparing the foods served to customers. A standardized recipe is a recipe that has been carefully adapted and tested to ensure that it will produce a consistent product every time it is used.

Why is it important to use standardized recipes in child nutrition operations?

Consistent Food Quality: Standardized recipes help ensure that the best possible food items are produced every time.

Predictable Yield: Knowing how much of an item the recipe will produce helps prevent food waste and shortages on the serving line.

Accurate Nutrient Content: Standardized recipes help ensure that the best possible food items are produced every time.

Food Cost Control: When the same ingredients and quantities are used each time the recipe is prepared, the cost per serving remains the same.

Efficient Purchasing: The quantity of ingredients needed for production can be easily calculated based on the information provided on the recipe.

Inventory Control: If a standardized recipe is followed, the quantity of food inventory used each time the recipe is produced can be estimated.

Labor Cost Control: Written procedures allow workers to make good use of their time and move through their workday more efficiently.

Employee Confidence: Workers can feel more satisfied and confident because eliminating guesswork decreases the likelihood of mistakes and poor food quality.

Reduced Record Keeping: Information from standardized recipes can be easily transferred to daily food production records.

What are some of the main components of a standardized recipe?

- Recipe title
- Recipe category
- Ingredients
- Weight and volume
- Preparation instructions
- Cooking temperature
- Serving size
- Recipe yield
- Cooking and serving equipment

Source: Institute of Child Nutrition. (2017). *Tools and tips for trainers: Why use standardized recipes?* https://www.theicn.org/icn-resources-a-z/tools-and-tips-for-trainers

Broccoli Bites
USDA Recipe for CACFP

These Broccoli Bites are a delicious combination of broccoli, bread crumbs, and low-fat cheese all baked together.

CACFP Crediting Information
1 broccoli bite provides ½ cup vegetable.

Ingredients	25 Servings		50 Servings		Directions
	Weight	Measure	Weight	Measure	
Frozen broccoli, chopped	4 lb 12 oz	1 gal 3 qt 1 cup	9lb 8 oz	3 gal 2 qt 2 cups	**1.** Combine broccoli, cheese egg whites, and bread combs in a large bowl. Stir well.
Low-fat cheddar cheese, shredded	12 oz	3 cups	1 lb 8 oz	1 qt 2 cups	
Frozen egg whites, thawed	1lb 12 oz	3½ cups	3 lb 8 oz	1 qt 3 cups	
Bread crumbs	15 oz	3¼ cups	1 lb 14 oz	1 qt 3½ cups	
					2. Using a No. 6 scoop, portion 2⁄3 cup (about 4 oz) broccoli mixture onto a sheet pan (18" x 26" x 1") lined with parchment paper and lightly coated with pan-release spray. For 25 servings, use 1 pan. For 50 servings, use 2 pans.
					3. Bake: Conventional oven: 375 °F for 25 minutes. Convection oven: 350 °F for 15 minutes.
					4. Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.
					5. Critical Control Point: Hold for hot service at 140 °F or higher.
					6. Serve 1 broccoli bite

Nutrition Information
1 broccoli bite

Nutrients	Amount
Calories	142
Total Fat	**3g**
Saturated Fat	2g
Cholesterol	8mg
Sodium	**186mg**
Total Carbohydrate	**19 g**
Dietary Fiber	3g
Total Sugars	2g
Added Sugars include	N/A
Protein	**12g**
Vitamin D	2 IU
Calcium	150mg
Iron	1mg
Potassium	128mg

N/A= data not available

Notes
Cooking Process #2: Same Day Service

Yield/Volume	
25 Servings	**50 Servings**
About 6 lb 8 oz	About 13 lb
About 3 qt 1 cup/25 broccoli bites	About 1 gal 2 qt 2 cups/50 broccoli bites

Source
USDA Standardized Recipe Project

Recipe Adjustment Steps

To increase or decrease the yield of a standardized recipe, follow these two steps:

Step 1: Determine the "multiplying factor"

New yield	÷ divided by	Original yield	= equals	Multiplying factor

Step 2: Determine the new quantity of each ingredient

Original quantity	X times	Multiplying factor	= equals	New quantity

Example 1: Increasing a recipe from 25 servings to 35 servings

You have a recipe that yields 25 servings, but you need to serve 35 children.

Step 1: Determine the "multiplying factor"

35 New yield	÷ divided by	25 Original yield	= equals	1.4 Multiplying factor

The original recipe for 25 servings calls for 3 cups of tomatoes.

Step 2: Determine the new quantity of each ingredient

3 cups Original quantity	X times	1.4 Multiplying factor	= equals	4.2 cups New quantity

Round up 4.2 cups of tomatoes to 4.25 or 4 ¼ cups of tomatoes.

Example 2: Decreasing a recipe from 25 servings to 20 servings

Step 1: Determine the "multiplying factor"

20 New yield	÷ divided by	25 Original yield	= equals	.8 Multiplying factor

Step 2: Determine the new quantity of each ingredient

3 cups Original quantity	X times	.8 Multiplying factor	= equals	2.4 cups New quantity

Round up 2.4 cups of tomatoes to 2.5 or 2 ½ cups of tomatoes.

Culinary Measurement Conversions

TABLESPOON (TBSP)	QUART (QT)	CUP (C)
1 Tbsp = 3 tsp	1 qt = 2 pt	1 c = 16 Tbsp
⅞ Tbsp = 2½ tsp	⅞ qt = 3½ c	⅞ c = 14 Tbsp
¾ Tbsp = 2¼ tsp	¾ qt = 3 c	¾ c = 12 Tbsp
⅔ Tbsp = 2 tsp	⅔ qt = 2⅔ c	⅔ c = 10⅔ Tbsp
⅝ Tbsp = 1⅞ tsp	⅝ qt = 2½ c	⅝ c = 10 Tbsp
½ Tbsp = 1½ tsp	½ qt = 1 pt	½ c = 8 Tbsp
⅜ Tbsp = 1⅛ tsp	⅜ qt = 1½ c	⅜ c = 6 Tbsp
⅓ Tbsp = 1 tsp	⅓ qt = 1⅓ c	⅓ c = 5⅓ Tbsp
¼ Tbsp = ¾ tsp	¼ qt = 1 c	¼ c = 4 Tbsp
	⅛ qt = ½ c	⅛ c = 2 Tbsp
	1/16 qt = ¼ c	1/16 c = 1 Tbsp
GALLON (GAL)	**METRIC MEASUREMENTS**	**PINT (PT)**
1 gal = 4 qt	1.0 = 1.0	1 pt = 2 c
⅞ gal = 3 ½ qt	⅞ = .875	⅞ pt = 1¾ c
¾ gal = 3 qt	¾ = .75	¾ pt = 1½ c
⅔ gal = 10 ⅔ c	⅔ = .66	⅔ pt = 1⅓ c
⅝ gal = 5 pt	⅝ = .625	⅝ pt = 1¼ c
½ gal = 2 qt	½ = .5	½ pt = 1 c
⅜ gal = 3 pt	⅜ = .375	⅜ pt = ¾ c
⅓ gal = 5 ⅓ c	⅓ = .33	⅓ pt = ⅔ c
¼ gal = 1 qt	¼ = .25	¼ pt = ½ c
⅛ gal = 1 pt	⅛ = .125	⅛ pt = ¼ c
1/16 gal = 1 c	1/16 = .0625	1/16 pt = 2 Tbsp

Culinary Measurement Conversions	
POUND (LB)	**Tool: My Kitchen Calculator**
1 lb = 16 oz	▶ Kitchen Calculator: https://mykitchencalculator.com/kitchencalculator.html
⅞ lb = 14 oz	
¾ lb = 12 oz	▶ How to use the MyKitchenCalculator.com Recipe Converter Tutorial: https://mykitchencalculator.com/howto.html
⅔ lb = 10 ⅔ oz	
⅝ lb = 10 oz	
½ lb = 8 oz	
⅜ lb = 6 oz	
⅓ lb = 5 ⅓ oz	
¼ lb = 4 oz	
⅛ lb = 2 oz	
1/16 lb = 1 oz	

Recipe Adjustment

Instructions:

- **Group A:** Increase the yield for the Broccoli Bites from 25 to 30 servings. Determine the new amount needed for the broccoli in the recipe. Follow the steps given below.
- **Group B:** Decrease the yield for the Broccoli Bites from 25 to 15 servings. Determine the new amount needed for the cheddar cheese in the recipe. Follow the steps given below.

Step 1: Determine the "multiplying factor"

_____	÷	_____	=	_____
New yield	divided by	Original yield	equals	Multiplying factor

Step 2: Determine the new quantity of each ingredient

Group A: Broccoli

_____	X	_____	=	_____
Original quantity	times	Multiplying factor	equals	New quantity

Group B: Cheddar Cheese

_____	X	_____	=	_____
Original quantity	times	Multiplying factor	equals	New quantity

Recipe Adjustment Answer Key

Group A: Broccoli

Increase the yield for the Broccoli Bites from 25 to 30 servings. Determine the new amount needed for the broccoli in the recipe. Follow the steps given below**.**

Step 1: Determine the "multiplying factor"

30	÷	25	=	1.2
New yield	divided by	Original yield	equals	Multiplying factor

Step 2: Determine the new quantity of each ingredient

4.75	X	1.2	=	5.7
Original quantity	times	Multiplying factor	equals	New quantity

Round up 5.7 pounds to 5.75 lbs or 5 ¾ lbs of broccoli.

Group B: Cheddar Cheese

Decrease the yield for the Broccoli Bites from 25 to 15 servings. Determine the new amount needed for the cheddar cheese in the recipe. Follow the steps given below.

Step 1: Determine the "multiplying factor"

15	÷	25	=	.6
New yield	divided by	Original yield	equals	Multiplying factor

Step 2: Determine the new quantity of each ingredient

3 cups	X	.6	=	1.8 cups
Original quantity	times	Multiplying factor	equals	New quantity

Round up 1.8 cups to 1.875 cups or 1 7/8 cups of cheddar cheese.

Speed Action Planning

Instructions: Today's training featured key information on the process to increase or decrease the yield of a standardized recipe to meet the needs of the Program's enrollment. Answer the following three questions to establish a plan for using the information.

1. What did you learn in this training?

2. How will you apply this information in your current or future roles?

3. When will you apply this information (e.g., one week, one month, six months, etc.)?

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