Combine Multiple Servings – by Count

Lesson Overview

Lesson Participants: School Nutrition Assistants/Technicians

Type of Lesson: Short face-to-face training session

Time Needed to Conduct the Lesson: 20 minutes

Lesson Description: This lesson explains the combining multiple serving sizes for the purpose of determining the amount of food to purchase and prepare. An instructor-led activity is used to guide participants to combine multiple serving sizes by count. The lesson is designed for managers to teach school nutrition assistants/technicians.

Lesson Objectives
At the end of this lesson, the participant will be able to:
1. Combine serving sizes to determine the amount of food to purchase and prepare.
2. Calculate multiple serving sizes by count for grade groups.

Get Ready to Train

Note: This lesson is one of three lessons on combining multiple servings.

The format for the No Time to Train lessons includes an overview, preparation checklist, lesson at a glance with timeline for conducting the lesson, references, and an instructor’s script. The manager/instructor will use the script to present the lesson to the participants. The script gives directions to the manager/instructor—DO, SAY, ASK, LISTEN, AND ACTIVITY—to deliver the lesson.

No special audiovisual or electronic equipment is needed to conduct the lesson. The lesson can be presented in the cafeteria, media center, or classroom.
# Preparation Checklist

**Directions:** Use the Preparation Checklist to prepare for the training session. Track your progress by checking off tasks as they are completed.

<table>
<thead>
<tr>
<th>Done</th>
<th>Lesson Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td></td>
</tr>
</tbody>
</table>

## Gather Materials

### Materials Needed

- Instructor’s Script
- Black or white board; overhead or flip chart; chalk or markers
- Handout 1: Sample Food Production Record
- Handout 2: Combine Multiple Servings—by Count
- Handout 3: Combine Multiple Servings—by Count with Key Answers
- Pencils and calculators (one for each participant)
- Session Evaluation form (one for each participant)

## Prepare for Lesson

### Before the Training

- Make copies of Handouts 1, 2, and 3 (one for each participant).
- Make copies of Session Evaluation form (one for each participant).

### On Training Day

- Reproduce Handout 2: Combine Multiple Servings-by Count on the black or white board or flip chart for demonstration purposes.
- Place pencils and calculators on tables (one for each participant).
- Distribute Handouts 1 and 2 (one for each participant).
- Distribute Handout 3 after activity (one for each participant).

### On the Instructor’s Table

- Instructor’s Script
- Handout 1: Sample Food Production Record
- Handout 2: Combine Multiple Servings—by Count
- Handout 3: Combine Multiple Servings—by Count with Key Answers
- Session Evaluation forms
Lesson at a Glance
(20 minutes)

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Task</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 minutes</td>
<td>Introduction and Overview</td>
<td>Instructor introduces the topic.</td>
<td>Instructor’s Script</td>
</tr>
<tr>
<td>14 minutes</td>
<td>Objective 1: Combine serving sizes to determine the amount of food to purchase and prepare.</td>
<td>Distribute Handout 1. Instructor guides participants through a Sample Food Production Record.</td>
<td>Handout 1: Sample Food Production Record</td>
</tr>
<tr>
<td></td>
<td>Objective 2: Calculate multiple serving sizes by count for grade groups.</td>
<td>Distribute Handout 2. Use Handout 1 to complete exercise. Participants will calculate and fill in provided blanks on Handout 2.</td>
<td>Handout 2: Combine Multiple Servings—by Count</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distribute Handout 3: Instructor leads a discussion on the activity completed.</td>
<td>Handout 3: Combine Multiple Servings—by Count With Key Answers</td>
</tr>
<tr>
<td>2 minutes</td>
<td>Wrap up and Review</td>
<td>Reinforce the lesson by asking questions. Encourage participants to ask questions and to make comments.</td>
<td></td>
</tr>
<tr>
<td>2 minutes</td>
<td>Session Evaluation</td>
<td>Conduct a short evaluation of the lesson.</td>
<td>Session Evaluation form</td>
</tr>
</tbody>
</table>

References:


Instructor’s Script

SAY:
Today we will talk about and practice combining multiple serving sizes of food when the food is portioned by count. It is important to know how to combine multiple servings so we can accurately determine the amount of food to purchase and prepare.

The example we will use is grilled chicken nuggets and the common unit will be “each” or nugget. All serving sizes must be combined into one common serving size prior to determining the total amount of frozen grilled chicken nuggets needed in purchase units (pounds or cases).

ASK:
When portioned, chicken nuggets with a Child Nutrition (CN) label are not weighed or measured; they are counted. Can someone tell me why chicken nuggets are not weighed or measured but instead portioned by counting?

LISTEN:
Listen to responses.

Suggested Answer: Chicken nuggets are not in the Food Buying Guide; therefore we must depend on the CN label or product analysis to determine the number of nuggets to serve to meet the required amount of the meat or meat alternate (M/MA) component.

CN-labeled product (USDA approved) is used according to the manufacturer’s instructions. The chicken nuggets are served by count to meet serving size age/grade group requirements. The common unit will be “each” or nugget for portioning.

ASK:
When multiple serving sizes are used, why is it necessary to combine the servings prior to determining the amount of food to purchase and prepare?

LISTEN:
Listen to responses.

Suggested Answer: It is necessary to combine the serving sizes because we need one amount to purchase or prepare. For example, we do not buy separate purchase units of chicken nuggets for each portion size. We combine all the needed servings and purchase the required number of cases to serve everyone.

SAY:
Let’s do an activity to combine multiple servings by count using grilled chicken nuggets.

ACTIVITY:
Instructor and participants will complete an exercise for combining multiple servings.
DO:
Distribute **Handout 1: Sample Food Production Record** and **Handout 2: Combine Multiple Servings—by Count**. Use the overhead, black/white board, or flip chart with **Handout 2** reproduced on it to guide participants through the steps.

SAY:
The USDA Child Nutrition Program set the requirements for the divisions of age/grade groups and the serving size of the meal items. The serving sizes reflect age appropriate nutrients and calories.

Let’s look at the handouts. The first is **Handout 1: Sample Food Production Record**. The other is **Handout 2: Combine Multiple Servings—by Count**.

The **sample food production record** directs which foods to prepare and provides forecasted numbers of servings needed with serving sizes by grade groups. The information needed to project the amount of grilled chicken nuggets (CN) labeled is on the manufacturers’ directions.

Menu Item Used: Grilled Chicken Nuggets
Product Code: Louie’s 92837      (CN) Label 567888 (6-digit #)
4 each = 2.0 oz meat or meat alternate
One case = 400 grilled chicken nuggets

The menu planner and manager have recorded the necessary information on the food production record. The school nutrition assistant is responsible for preparing grilled chicken nuggets. First, combine multiple servings by count; next, calculate the total number of nuggets needed, Then, calculate the number of cases needed to prepare to serve this meal.

Let’s use **Handout 2**, an exercise that will help us combine serving sizes. We need to determine the total number of chicken nuggets required and divide by the amount in the case to determine how many cases of frozen chicken nuggets are needed. One case contains 400 grilled chicken nuggets.

DO:
Use the overhead, black/white board, or flip chart with **Handout 2** reproduced on it to guide participants through the steps.

ASK:
In **Handout 1**, what are the divisions in **Grade Groups** for portion sizes of grilled chicken nuggets?

LISTEN:
Listen to responses.
Answers: The **Grade Groups** are K-3, 4-8, 9-12, and adults, respectively.
SAY:
Write the **Grade Groups** into the first blank column of the exercise in **Handout 2**.

DO:
While participants are completing their exercise, write the **Grade Groups** on the demonstration exercise.

ASK:
Looking at **Handout 1**, how many **Projected Student Servings** and **Projected Adult and À la Carte Servings** are needed for the grade groups, adult, and à la carte servings? What two rows need to be added together?

LISTEN:
Listen to responses.
Answers: The **Projected Total Servings Needed** are 195, 185, and 203 servings, respectively.

SAY:
Use **Handout 2** to write the **Projected Total Servings Needed** into the second blank column of the exercise.

DO:
While participants are completing their exercise, write the **Projected Total Servings Needed** on the demonstration exercise.

ASK:
What is the **Serving Size Needed** for Group Grades K-3, 4-8, 9-12 and adults?

LISTEN:
Listen to responses.
Answers: The **Serving Sizes Needed** are 1.5 oz M/MA, 2.0 oz M/MA, and 2.25 oz M/MA.

SAY:
The **Serving Size Needed** for the exercise is:

<table>
<thead>
<tr>
<th>Grade Groups</th>
<th>Projected Total Servings Needed</th>
<th>x</th>
<th>Serving Size Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-3</td>
<td>195</td>
<td>x</td>
<td>1.5 oz M/MA* = 3 each</td>
</tr>
<tr>
<td>4-8</td>
<td>185</td>
<td>x</td>
<td>2.0 oz M/MA* = 4 each</td>
</tr>
<tr>
<td>9-12 and Adult</td>
<td>203</td>
<td>x</td>
<td>2.25 oz M/MA* = 5 each</td>
</tr>
</tbody>
</table>

* Meat or Meat Alternate
Write these serving sizes into the third blank column of the exercise.
DO:
While participants are completing the exercise, write the serving sizes on the demonstration exercise and repeat the process until the exercise is completed.

SAY:
The next thing to do is to multiply each line as directed on the exercise. Calculate and write in the totals on the Total Servings Needed column.

<table>
<thead>
<tr>
<th>Grade Groups</th>
<th>Projected Total Servings Needed</th>
<th>x</th>
<th>Serving Size Needed</th>
<th>=</th>
<th>Total Servings Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-3</td>
<td>195</td>
<td>x</td>
<td>1.5 oz M/MA* (3 each)</td>
<td>=</td>
<td>585 chicken nuggets</td>
</tr>
<tr>
<td>4-8</td>
<td>185</td>
<td>x</td>
<td>2.0 oz M/MA* (4 each)</td>
<td>=</td>
<td>740 chicken nuggets</td>
</tr>
<tr>
<td>9-12 and Adult</td>
<td>203</td>
<td>x</td>
<td>2.25 oz M/MA* (5 each)</td>
<td>=</td>
<td>1,015 chicken nuggets</td>
</tr>
</tbody>
</table>

* Meat or Meat Alternate

2,340 total chicken nuggets ÷ 400 per case = 5.85 or 6 cases of chicken nuggets minus 60 nuggets

NOTE: 400 nuggets per case multiplied by 6 cases equals 2,400 nuggets. 60 nuggets from the last case may not be needed.

SAY:
Let’s be sure you have the correct answers on Handout 2. Use Handout 3 to verify your answers are correct.

DO:
Distribute Handout 3: Combine Multiple Servings-by Count with Key Answers to participants.

SAY:
This lesson explains the steps for combining multiple servings for the purpose of determining the amount of food to purchase and prepare. The exercise helps us to calculate multiple serving sizes by counting for grade groups and the total servings needed of the product in cases to purchase or prepare.

ASK:
Do you have any questions about the exercises?

LISTEN:
Listen to individual responses. Answer questions to the best of your ability. If there are questions you can’t answer, tell participants you will find out the answer and let them
know later. If you need assistance in finding answers, please call the National Food Service Management Institute at 800-321-3054.

**DO:**
Distribute the Session Evaluation form.

**SAY:**
Thank you for participating in the lesson today. Please take a few minutes to complete the Session Evaluation form. Thank you for your input.
### Handout 1: Sample Food Production Record

<table>
<thead>
<tr>
<th>Menu Item Used</th>
<th>Recipe # or Product Code</th>
<th>Grade Groups</th>
<th>Serving Size Needed (Wt/Vol/Ct)</th>
<th>Projected Student Servings</th>
<th>Projected Adult and A la Carte Servings</th>
<th>Projected Total Servings Needed</th>
<th>Amount Needed per 100 servings from FBG Yield Data Table Column 5</th>
<th>Total Amount of Food Prepared in Purchase Units Column 8 x Column 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grilled Chicken Nuggets</td>
<td>Louie’s 92837</td>
<td>K-3</td>
<td>1.5 oz M/MA* (3 each)</td>
<td>195</td>
<td>0</td>
<td>195</td>
<td>CN label 567888 (6-digit #) 1 case = 400 nuggets Not in Food Buying Guide</td>
<td>Grilled Chicken Nuggets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Meat or Meat Alternate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-8</td>
<td>2.0 oz M/MA* (4 each)</td>
<td>185</td>
<td>0</td>
<td>185</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9-12 and Adult</td>
<td>2.25 oz M/MA* (5 each)</td>
<td>181</td>
<td>22</td>
<td>203</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Handout 2: Combine Multiple Servings – by Count

**Directions:** Fill in the exercise using Handout 1: Sample Food Production Record to calculate the total servings needed to purchase or prepare in cases in Handout 2. (1 case = 400 chicken nuggets)

### Serving Size Conversion for Multiple Serving Sizes

<table>
<thead>
<tr>
<th>Grade Groups</th>
<th>Projected Total Servings Needed</th>
<th>Serving Size Needed</th>
<th>=</th>
<th>Total Servings Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**When the serving sizes are in ounces,** the total number of servings needed has been converted and this number used in Column A of Method 1 or 2.

**When the serving sizes are in fractions of a cup,** one additional step is needed. Divide the total number of cups by the serving size from Column 4 of the Food Buying Guide to get the total number of servings needed. This number is used in Column A of Method 1 or 2.

### Additional Step for Cups:

<table>
<thead>
<tr>
<th></th>
<th>÷</th>
<th>=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Cups</td>
<td>FBG</td>
<td>Total Servings</td>
</tr>
<tr>
<td>Column 4 Serving Size</td>
<td>Column 4 Serving Size</td>
<td></td>
</tr>
</tbody>
</table>
Handout 3: Combine Multiple Servings – by Count with Key Answers

Directions: Fill in the exercise using Handout 1: Sample Food Production Record to calculate the total servings needed to purchase or prepare in cases in Handout 2. (1 case = 400 chicken nuggets)

<table>
<thead>
<tr>
<th>Grade Groups</th>
<th>Projected Total Servings Needed</th>
<th>x</th>
<th>Serving Size Needed</th>
<th>Total Servings Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-3</td>
<td>195</td>
<td>x</td>
<td>1.5 oz M/MA*</td>
<td>585 chicken nuggets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3 each)</td>
<td></td>
</tr>
<tr>
<td>4-8</td>
<td>185</td>
<td>x</td>
<td>2 oz M/MA*</td>
<td>740 chicken nuggets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4 each)</td>
<td></td>
</tr>
<tr>
<td>9-12 and Adult</td>
<td>203</td>
<td>x</td>
<td>2.25 oz M/MA*</td>
<td>1015 chicken nuggets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(5 each)</td>
<td></td>
</tr>
</tbody>
</table>

When the serving sizes are in ounces, the total number of servings needed has been converted and this number used in Column A of Method 1 or 2.

When the serving sizes are in fractions of a cup, one additional step is needed. Divide the total number of cups by the serving size from Column 4 of the Food Buying Guide to get the total number of servings needed. This number is used in Column A of Method 1 or 2.

2340 total chicken nuggets ÷ 400 per case = 5.85 or 6 cases of chicken nuggets minus 60 nuggets

Additional Step for Cups:

<table>
<thead>
<tr>
<th>Total Number of Cups</th>
<th>FBG Column 4 Serving Size</th>
<th>Total Servings</th>
</tr>
</thead>
<tbody>
<tr>
<td>÷</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Meat or Meat Alternate
### Session Evaluation

**Instructions:**
Completely fill in the circle of your answer. Use a #2 pencil.
Please select only one response for each statement. Do not fold or crease this sheet.

<table>
<thead>
<tr>
<th>Title of Meeting:</th>
<th>Session Topic:</th>
<th>Trainer's Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time Slot:</th>
<th>Location:</th>
<th>Length of Event (hrs/min):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Attendee Status:
- District director
- State agency staff
- Major city director
- Site-level manager
- Private consultant/trainer
- Foodservice assistant
- Other (please list): ________________

### Reaction to this Session

Please read the following statements related to the session. Rate your level of agreement by using the scale 5 (Strongly Agree) to 1 (Strongly Disagree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The session objectives were clearly presented.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. The session objectives were achieved.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. I can apply what I learned in this session to my job.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Attending the session increased my skill on the topic.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Attending the session increased my knowledge on the topic.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. I would recommend this session to others.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Overall, the session met or exceeded my expectations.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

### Comments about this Session

The information I found MOST useful was:
__________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Please share any additional comments:
________________________________________________________________
________________________________________________________________
________________________________________________________________

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National Food Service Management Institute - The University of Mississippi