



**Menu Planner  
for  
School Meals**

Planning  
Preparing



Serving  
Marketing

**Healthy School Meals**



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# Overview

*As a school nutrition professional, you are a vital link to children.*

You can help children live healthier, now and in years to come. You and your school nutrition colleagues are part of a long and proud tradition. Since 1946, the National School Lunch Program (NSLP) has provided financial support and USDA Foods to help schools and residential child care institutions safeguard the health and well-being of America's children through nourishing meals. Many schools have also joined the School Breakfast Program (SBP) to offer morning meals that help children be ready to learn.

While these programs have always been a partnership between the Federal Government, States, and local communities, you and your colleagues in schools have been—and still are—*the vital link* to children. Today, your role is even more important than ever. Research shows *crucial* relationships exist between nutrition and health, and nutrition and learning.

Since the early days of school lunch, students' eating habits and lifestyles have changed significantly. In the 1940s, diets lacking in nutrients were common. Today, Americans typically consume more calories than they expend, which leads to overweight and obesity. Such a lifestyle is linked to chronic diseases such as heart disease and diabetes. While many U.S. children eat healthy diets and engage in physical activity, significant numbers are food insecure, obese,

and/or sedentary. Americans also tend to eat more saturated fat, sodium, and *trans* fat than is recommended—and too few whole grains, vegetables, fruits, lean proteins, and fat-free and low-fat dairy foods.

The *Nutrition Standards in the National School Lunch and School Breakfast Programs* (nutrition standards) address today's nutrition concerns for students by aligning school meals with the *Dietary Guidelines for Americans*. The nutrition standards use a Food-Based Menu Planning (FBMP) system that helps increase the availability and intake of fruits, vegetables, whole grains, and fat-free and 1% (low-fat) milk, and reduce saturated fat, sodium, and *trans* fat.

You can make a difference. In fact, you're in a special position to show children what it means to eat for good health. This *Menu Planner for School Meals* (Menu Planner) is designed to help you plan, prepare, provide, and market great-tasting, nutritious, and safe meals that meet the requirements in the nutrition standards.

You and your colleagues across the country play a huge part in our Nation's battle against hunger and malnutrition. You make a difference in the lives of millions of children. The food you provide prepares your students to learn, and the choices you offer help them to develop healthy lifestyles.

## CHAPTER HIGHLIGHTS

**Chapter 1 gives key highlights of the nutrition standards, from a child nutrition and food safety perspective.**

Today's school meal patterns include flavorful fruits, vegetables, whole grains, lean proteins, and fat-free and 1% (low-fat) milk. They also incorporate dietary specifications that ensure meals contain important vitamins and minerals, are sufficient in calories, and limit saturated fat, sodium, and *trans* fat. In this chapter, you will find an overview of:

- Food-Based Menu Planning (FBMP) including grade groups, meal components, and dietary specifications
- The science behind these regulations in the context of health outcomes for today's children
- School-related food safety laws and regulations as well as the concept of fostering a culture of food safety in your schools.

**Chapter 2 covers FBMP, including meal components, meal patterns, and dietary specifications, in more detail.**

FBMP helps you serve economical meals that are varied, balanced, safe, wholesome, and health promoting. In this chapter, you will learn about:

- The benefits of FBMP for your students, your program, and your community.
- Important FBMP features such as the:
  - Five meal components
  - Meal patterns and dietary specifications for each grade group (K–5, 6–8, and 9–12) for lunch and breakfast
  - Requirements for a reimbursable meal by meal component.
- Food safety concerns for each meal component.
- Ideas for using seasonal foods.
- Program serving options of Served and Offer Versus Serve and their impact on reimbursable meals.
- Using the *Food Buying Guide for Child Nutrition Programs* (FBG) and the *Whole Grain Resource for the National School Lunch and School Breakfast Programs* (Whole Grain Resource).

**Chapter 3 explores successful menu development for school meals.**

Before meals can be prepared and served, careful planning needs to take place. This chapter explains how to:

- Apply the nutrition standards for school meals as a planning tool.
- Use existing planning resources such as records from past menus and additional resources such as templates with built-in checks for program requirements and cycle menus focused on seasonal foods.
- Develop a lunch menu from main dish to milk, including how to offer all vegetable subgroups with a salad bar.
- Understand and incorporate district-level choices into all menu planning.
- Evaluate meals for variety as a key principle of successful menu planning.

**Chapter 4 is all about meal preparation documentation and why it is so critical to the success of your program.**

Production records, standardized recipes, and written Hazard Analysis and Critical Control Point (HACCP) food safety standard operating procedures (SOPs) ensure your customers receive nutritious, safe, high-quality meals that not only meet nutrition standards, but also taste good. In this chapter, you will learn about:

- Production records, including
  - Required information on all production records
  - Two-step process for completing a production record.
- Standardized recipes
  - Required information on all standardized recipes
  - Three phases to develop standardized recipes.
- HACCP food safety program
  - SOPs
  - Staff training and Active Managerial Control
  - Process approach to HACCP.

### Chapter 5 addresses procurement and inventory management.

Procurement and inventory management support school nutrition program goals to provide nutritious, great-tasting, and safe food to your students and other customers in a cost-efficient manner. In this chapter, you will learn about:

- Procurement
  - Forecasting, sourcing, and soliciting, including specifications and bids
  - USDA Foods – variety, menu options, and available resources
  - Buying locally – Farm to School and geographical preferences
  - Documenting – Child Nutrition labels, Product Formulation Statements (PFS), and Nutrition Facts labels.
- Inventory management – Ordering, receiving, storage, recall management, and food-safe practices.

### Chapter 6 covers meal modifications to accommodate students with disabilities.

Using the information in this chapter, you and your staff can modify menus with confidence and provide for the special nutrition requirements some students need to grow and thrive. In cases of disabilities that restrict the diet, schools are required to provide for special dietary needs. Program regulations permit schools to provide meal accommodations in nondisability situations. Key points in this chapter include:

- Federal laws and regulations related to disabilities that restrict diets
- Required modifications and associated documentation
- Differences between a food allergy and a food intolerance
- Menu development, food preparation, food safety, and other considerations for disabilities that restrict the diet, and other medical or special dietary needs.

### Chapter 7 focuses on using effective marketing techniques to increase participation in your program.

Your marketing plan is an investment in the future success of your school nutrition operation. You can use marketing principles in your school nutrition program to benefit your students. You will learn about:

- The role of marketing in school nutrition programs
- How to develop, implement, and evaluate your marketing plan
- Why it is important to involve the school community, starting with your staff
- Ways to reach out to your stakeholders—teachers, parents, school administrators, and the community
- Proven initiatives and promotions such as Team Nutrition, Farm to School, and the Alliance for a Healthier Generation’s Healthy Schools Program
- Promotions and merchandising ideas designed to get students’ attention.

#### How to Make the Most of This Menu Planner

This Menu Planner has been developed to help you as a school nutrition professional in providing nutritious, wholesome meals that support students’ health and learning. You understand the needs of your district, schools, and students. That’s why flexibility is built into planning school meals that meet the Federal requirements. This resource has been developed with flexibility in mind so you can use it to fit your needs.

If you’re new to school nutrition, you will probably want to read the entire Menu Planner. If you are an experienced school nutrition professional, you can review the Menu Planner and spend more time with certain chapters. Each chapter is designed to stand on its own (with references to other chapters for details), so you can go right to your topic of interest.

## OVERVIEW

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The Menu Planner integrates several important topics that are key aspects of successful school nutrition programs. You will find information on these topics throughout this resource:

- Nutrition
- Food safety
- Farm to School
- USDA Foods
- Seasonal foods
- Marketing
- Administrative Review

### Chapter Features

Each chapter is full of useful features to help you implement FBMP. Here is what you will find:

- Overview and recap at the beginning and end of each chapter
- Sidebar features called *Take a Closer Look*, and charts with more detailed information about regulations, procedures, and resources
- School spotlights from school districts throughout the country to give you some ideas for improving and promoting healthy meals in your school nutrition programs

**Please note that while school spotlights are great ideas and suggestions, there may be minor differences in implementation or State/local requirements that could affect compliance during the review.**

- *Menu Chat*, a fictional online discussion room among school nutrition professionals that helps illustrate flexible implementation of FBMP and other tips for success
- Short quizzes with answer keys so you can check your knowledge
- Numerous resources with hyperlinks so you can easily find detailed information, training materials, and forms.

**If you are using this resource in its printed format, full references can be found at the end of each chapter.**

- Appendixes
- Graphic icons that highlight important issues.

## Guide to Graphic Icons

Throughout the Menu Planner, you will see these graphic icons. Here is what they mean.



While this icon is included to help you prepare for a review, this resource is not all encompassing and your State agency can provide you with additional information on what is needed during an Administrative Review.



This icon calls out practices that help create a culture of food safety; in other words, practices that show the school community values food safety.



The Check for Crediting icon draws attention to required foods, amounts, and/or nutrients that need to be met for credit toward reimbursable meals.



This graphic identifies district School Spotlights that may give you ideas for improving your own school nutrition program.



The Take a Closer Look icon calls out sidebar features that provide more detailed information about regulations, procedures, and resources.



The end of each chapter includes a short quiz with an answer key to help assess the knowledge learned. Each quiz is marked with the Check Your Understanding icon.

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**NOTE:** For ease of reading, the Menu Planner refers to age/grade group as grade groups.

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# CH.1

## Child Nutrition and School Meals



# Child Nutrition and School Meals

## CH.1

*Since their start, school meal programs have safeguarded the health and well-being of America's children. As school nutrition professionals, you and your staff play a huge role in ensuring students are properly nourished and ready to learn. You do that by planning, preparing, and serving great-tasting, nutritious, and safe meals—every day of the school year! Thanks to your efforts in implementing today's school meal patterns, school meals are bursting with flavorful fruits, vegetables, whole grains, lean proteins, and fat-free and 1% (low-fat) milk. School meals are aligned with dietary specifications that ensure meals contain important vitamins and minerals and are sufficient in calories, but limited in saturated fat, sodium, and trans fat.*

### **In this chapter, you will take a general look at:**

The role of school meals in enhancing students' well-being, for today and the future:

- Key aspects of menu planning
  - Grade groups
  - Meal components
  - Meal patterns
  - Dietary specifications.
- Food-safe schools
  - School-related food safety laws and regulations
  - The importance of fostering a culture of food safety in your schools.
- The science behind nutrition standards in school meals.
- Flexibility in the nutrition standards so you can plan your menus to meet the needs of your district, schools, and students.

### **MEETING THE NUTRITIONAL NEEDS OF STUDENTS THROUGH SCHOOL MEALS**

Generally, most people know about nutrition. It is the process by which our bodies take in and use food. Why is it so important? What are special issues of concern for today's children?

Good nutrition provides the calories students need for energy and the nutrients essential for:

- Proper growth, repair, and maintenance of body tissues
- Resistance to disease and infection
- Prevention of nutrient deficiencies.

In recent decades, medical researchers have found that proper nutrition, as well as physical activity, can also help reduce the risks of heart disease and certain types of cancer.

A healthy diet provides:

- Essential nutrients and energy to prevent nutritional deficiencies and excesses
- The right balance of carbohydrates, fats, and protein to reduce risk for chronic diseases

- A variety of foods including low-fat and fat-free milk and milk products, fruits, vegetables, whole grains, and lean meats, poultry, fish, beans, eggs, and nuts.

### Today's Nutrition Challenges for Children

While many children in the United States consume healthy diets and engage in physical activity, a significant number do not. For example:

- Approximately 10.2 percent of households experience food insecurity.
- Nearly one in five school age children is obese.
- Over 74 percent of high school students do not engage in physical activity for at least 60 minutes daily (the recommended amount).

A student can experience food insecurity and be overweight at the same time. Reasons include lack of access to a variety of health-promoting foods; excess intake of low-nutrient, high-calorie foods and beverages; and sedentary lifestyles.

### Updated Science-Based Standards for School Meals

While school meals have always provided a nutritional safety net for children, the prevalence of overweight, obese, and/or physically inactive students led the Federal Government to update

the requirements for school meals. In 2010, USDA made the first major changes to school meals in 15 years to help raise a healthier generation of children.

The updated standards align school nutrition programs with the latest nutrition science. The goal of the school meal programs is to provide meals that meet the dietary needs of children, while safeguarding their health. This is accomplished by serving meals packed with nutrients and limiting excess calories, saturated fat, sodium, and *trans* fat.

Several interrelated laws, regulations, and publications provide the rationale for school meal patterns and dietary specifications:

- *Nutrition Standards in the National School Lunch and School Breakfast Programs* (<https://www.fns.usda.gov/cn/nutrition-standards-school-meals>)
- National School Lunch Act (NSLA) (<https://www.fns.usda.gov/nsla-amended-pl-116-94>)
- *Dietary Guidelines for Americans (Dietary Guidelines)* (<https://www.dietaryguidelines.gov/>)

## Nutrient Dense

The *Dietary Guidelines for Americans* define “nutrient dense” as follows:

Nutrient-dense foods and beverages provide vitamins, minerals, and other health-promoting components and have little added sugars, saturated fat, and sodium. Vegetables, fruits, whole grains, seafood, eggs, beans, peas, and lentils, unsalted nuts and seeds, fat-free and low-fat dairy products, and lean meats and poultry—when prepared with no or little added sugars, saturated fat, and sodium—are nutrient-dense foods.



- The Health and Medicine Division’s (HMD, formerly the Institute of Medicine, IOM) recommendations set forth in the 2009 report *School Meals: Building Blocks for Healthy Children* (HMD School Meals Report) (<https://www.nap.edu/catalog/12751/school-meals-building-blocks-for-healthy-children>).

The following sections cover each of these in a little more detail. First, let’s review the basics of menu planning and creating a culture of food safety.

## MENU PLANNING – THE FOUNDATION OF SCHOOL MEALS

Ultimately, you want to provide nutrient-dense meals (high in beneficial nutrients and relatively low in calories) that better meet the dietary needs of school children and promote good health. This means increasing the availability and intake of fruits, vegetables, whole grains, and fat-free and 1% (low-fat) milk. It also includes reducing the levels of saturated fat, sodium, and *trans* fat, while meeting nutrient and calorie requirements of school children.

To meet these goals, USDA has developed a food-based menu planning (FBMP) system. If followed correctly, this system helps ensure your menus will meet the nutrition standards.

Let’s take a quick tour of planning menus to meet the Federal standards before diving into details in the following chapters. In the next few pages you will review grade groups, meal components, and dietary specifications. These regulations have flexibility to fit the needs of your district, schools, and students.

## Menu Planning Allows Flexibility

Districts and schools across America vary in many aspects. Diversities include:

- Urban, suburban, and rural settings
- Economic health of local communities
- Ethnic and cultural makeup of students, faculty, and staff
- District and school sizes
- Different school-level grade categories
- Differences in State and local policies
- Availability and cost of local and regional foods.

You understand the needs of your district, schools, and students. That’s why flexibility is built into planning school meals that meet Federal requirements.

## Grade Groups

Meal patterns and dietary specifications have been established for grade groups:

- Grades K–5 (ages 5–10)
- Grades 6–8 (ages 11–13)
- Grades 9–12 (ages 14–18).

These grade groups reflect typical school grade configurations. Additionally, the groupings are consistent with the school age categories for various nutrients in the HMD School Meals Report. Each grade group meal pattern is designed to provide these nutrients on a weekly average: approximately one-third of the total daily calories and other key nutrients at lunch, and approximately one-fourth of the total daily calories and key nutrients at breakfast.

The food quantity requirements for grade groups K–5 and 6–8 overlap, allowing schools to use one meal pattern for students in grades K through 8 at lunch. The patterns for breakfast overlap for all grades K–12 chapter 3 includes menu planning tips for blended grade groups.



### Meal Components

Meal patterns are based on meal components:

- Fluid milk
- Fruits
- Vegetables, including subgroup requirements
  - Dark green
  - Red/orange
  - Beans and peas (legumes)
  - Starchy
  - Other
- Grains
- Meats/meat alternates.

Let's take a look at the highlights of the menu planning system:

- Provide a variety of fluid milk that is fat-free and 1% (low-fat) unflavored or flavored.
- Provide fruits daily at lunch and breakfast.
- Provide vegetables daily at lunch and meet weekly requirements for specific vegetable subgroups.
- Provide whole and enriched grains: at least 80 percent of the weekly grains offered must meet the whole grain-rich criteria specified in FNS guidance, and the remaining grain items offered must be enriched.
- Include fruits or vegetables as part of required items for a reimbursable meal.
- Meet the ranges or limits for dietary specifications.

Dietary specifications establish ranges or limits for each grade group for:

- Calories
- Saturated fat
- Sodium
- *Trans* fat.

Here is a snapshot of dietary specifications in menu planning:

- Offer meals that meet specific calorie ranges for each grade group.
- Limit saturated fat content of meals.
- Reduce the sodium content of meals.
- Prepare meals using food products or ingredients that contain 0 grams (<0.5 grams) *trans* fat per serving.

Chapter 2 covers the meal components, meal patterns, and dietary specifications in detail. With this overview, you can see how the FBMP system will result in nutrient-dense meals (high in nutrients for the amount of calories).

Further in this chapter, you will find more details about the nutrition science that forms the foundation of the school meals planning system. Next let's turn to new developments in food safety in the school environment.



**School District:**  
Pinellas County  
District Schools

**Located:**  
Largo, Florida

**Enrollment:**  
104,000

**Website:**  
[www.pcsb.org](http://www.pcsb.org)

## Training the Trainer About Food-Based Menu Planning

Pinellas County District Schools (PCDS) Food Service Department has developed a train-the-trainer program for managers on Food-Based Menu Planning. Assistant Director Brianna Mahoney, M.S., R.D., conducted summer training in small groups of 10 people, providing the opportunity for individualized attention and group discussion. Managers received materials specific to their school. Additionally, all participants received:

- A dietary specifications sheet
- A vegetable subgroups chart
- Menus for each grade level
- Meal component handouts with changes noted.

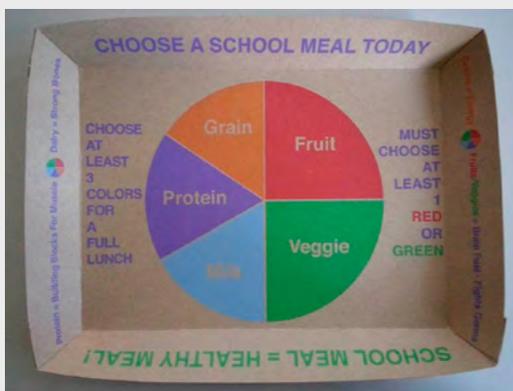
Here are some highlights of the training:

- Detailed overview and discussion of the regulations
- Hands-on activity comparing current menus to the dietary specifications
- Indepth look at vegetable subgroups
- Group discussion about ways to add more vegetables to current menus
- Tests to measure managers' understanding of the information presented.

Managers now train their staff using these materials, which they can tailor to the needs of their school. Additional PCDS training materials include:

- An e-learning program for Offer vs Serve
- A video showing correct and incorrect breakfast trays
- A question and answer game adding fun to training days
- School posters and flyers.

These examples show how training can be fun and educational. PCDS' overall training goal is to bring value to students with each meal served.



Pinellas County Schools' training tool helps staff understand requirements for a reimbursable meal.

Whether you use some of the many low-cost or free trainings available through the USDA Professional Standards Training Database (<https://professionalstandards.fns.usda.gov/>), resources from the Institute of Child Nutrition, or develop training materials, it's important to regularly train, in creative ways, both seasoned and newly hired staff on school meal standards. Check to see whether the training you provide credits toward USDA Professional Standards requirements (<https://www.fns.usda.gov/school-meals/professional-standards>). For access to hundreds of low-cost or free trainings, visit the USDA Professional Standards Training Database (<https://professionalstandards.fns.usda.gov/>).



## Food Insecurity in America and the Role of School Meals

Most U.S. households are food secure, having consistent, dependable access to enough food for active, healthy living. But some American households do experience food insecurity, which means that some families have limited access to food at times during the year due to a lack of money and/or other resources. USDA's food and nutrition assistance programs increase food security by providing low-income households access to food, a healthful diet, and nutrition education to get the most out of each food dollar.

The USDA Economic Research Service (ERS) monitors food insecurity in U.S. households through an annual, nationally representative survey. Here's a snapshot of food insecurity in the United States:

- 10.2 percent of American households (about 13.5 million) are food insecure, meaning they lacked access to enough food for an active, healthy life for all household members.
- 3.8 percent of U.S. households (about 5.1 million) had very low food security; in other words, when food was in short supply, some family members ate less food and less often than their normal pattern.
- For households with children, 6.2 percent were food insecure. At times, about 2.3 million households were unable to provide adequate, nutritious food for their children.
- Rates of food insecurity in 2021 were significantly higher than the national average (10.2 percent) for the following groups:
  - All households with children (12.5 percent)
  - Households with children under age 6 (12.9 percent)
  - Households with children headed by a single female (24.3 percent) or a single male (16.2 percent)
  - Households with Black, non-Hispanic (19.8 percent) and Hispanic (16.2 percent) household reference persons
  - Households with incomes below 185 percent of the poverty threshold (26.5 percent).
- Fifty-six percent of food-insecure households reported participating in one or more of the three largest Federal food and nutrition assistance programs in the prior month.

USDA's child nutrition programs provide a nutritional safety net for children. The National School Lunch Program (NSLP) is our country's second largest food and nutrition assistance program. While all schools are eligible to offer the School Breakfast Program (SBP), not all do. Offering breakfast in schools is one way to address food insecurity within your local community:

- Nearly 100,000 public and nonprofit private schools (grades K-12) and residential child care institutions (RCCIs) participated in the NSLP.

- Before the COVID-19 pandemic, nearly 30 million children received low-cost or free lunches on an average school day.
- School cafeterias served almost 5 billion lunches, about three-quarters of them free or reduced-price.

In participating NSLP/SBP schools, any student may purchase a reimbursable meal. Income-eligible families can receive free- or reduced-price meals for their children:

- Children in households with incomes at or below 130 percent of the Federal poverty level are eligible for free meals.
- Children in households with incomes between 130 and 185 percent of the Federal poverty level are eligible for reduced-price meals.
- Children from food-insecure and marginally secure households were more likely to eat school meals, and these students received more of their total food and nutrient intake from school meals than did children from food-secure households.

The school meals you plan and serve relieve food insecurity in your local area in three ways: food is offered, meals are healthful, and nutrition education is part of the school meal experience. It may seem as though you have a lot on your plate as a menu planner. Your efforts affect all students' nutrition and health, especially those from food-insecure households.

### References

Alisha Coleman-Jensen, Matthew P, Rabbitt, Christian Gregory, and Anita Singh. *Household Food Security in the United States in 2021*, ERR-309, U. S. Department of Agriculture, Economic Research Service, September, 2022 (<https://www.ers.usda.gov/publications/pub-details/?pubid=104655>).

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U.S. Department of Agriculture, Economic Research Service, Child Nutrition Programs National School Lunch Program, Washington, DC (<https://www.ers.usda.gov/topics/food-nutrition-assistance/child-nutrition-programs/national-school-lunch-program/>).

U.S. Department of Agriculture, Food and Nutrition Service, National School Lunch Program Fact Sheet (<https://www.fns.usda.gov/nslp/nslp-fact-sheet>).

U.S. Department of Agriculture, Food and Nutrition Service, School Meals, Income Eligibility Guidelines (<https://www.fns.usda.gov/school-meals/income-eligibility-guidelines>).

U.S. Department of Health and Human Services, Poverty Guidelines, Research, and Measurement (<https://www.aspe.hhs.gov/topics/poverty-economic-mobility>).

## FOOD-SAFE SCHOOLS

When it comes to school meals, food safety is just as important as nutrition. School Food Authorities (SFAs) follow regulations provided by USDA and State or local health departments to maintain safe food. In this section, you will learn about creating a culture of food safety.

### School Meals Food Safety Laws and Regulations

Let's take a moment to see which regulations affect your school food safety program. The NSLA stipulates that the USDA provide assistance to States in establishing, maintaining, operating, and expanding child nutrition programs offered through schools. The law requires school meal programs to meet minimum food safety requirements.

In 2010, the NSLA was amended. The Act now includes the food safety requirements and the Child Nutrition and WIC Reauthorization Act of 2004. The NSLA requires:

- SFAs to implement a school food safety program based on Hazard Analysis and Critical Control Point (HACCP) principles anywhere food is stored, prepared, or served
- Each school participating in the NSLP or SBP to:
  - Obtain at least two food safety inspections each school year.
  - Post most recent food safety inspection in a publicly visible location.
  - Provide a copy of the food safety inspection report to the public upon request.

Assuring the safety of the food for the customers you serve goes beyond requirements. Buy-in from the broader school community is necessary to create a culture of food safety.

### A Culture of Food Safety – Creating Food-Safe Schools

What is a culture of food safety? Think of it as the school community's behaviors and beliefs about food safety. A culture of food safety will be evident when food-safe behaviors are *second nature* to members of the school community – the school nutrition team, school administrators, teachers, parents, and students. These behaviors are *consistently* practiced to help keep everyone healthy and safe, students and adults alike.

Unsafe human behavior is a major contributing factor to foodborne illness. Simply put, food safety and behavior go hand in hand. Historically, food safety efforts have focused on regulatory inspections and training, but research shows these efforts alone are only partially effective. Basing your food safety efforts on sound science lays the foundation for a culture of food safety. Not only must you know which practices are important to keep food safe (for example, temperature control of food), but also why these practices are critical (for example, food held at improper temperatures can grow microbes that can make your students sick).

Developing plans, policies, and procedures are important to establish expectations and standards, as well as create a food safety blueprint for the entire school community. However, you also must strive to change the way people do things – their behavior. Your goal should be to create a culture of food safety by focusing not only on *processes*, but also on *people*.



*In creating this culture, **food safety needs to be viewed as a value rather than a priority. Priorities can change; values should not.***



## Food Safety Training Resources

The Institute of Child Nutrition (ICN) has an in-depth employee food safety curriculum, *Food Safety in Schools* (<https://theicn.org/icn-resources-a-z/food-safety-in-schools>). This entire resource is available in both English and Spanish (*Seguridad de alimentos en las escuelas*). *Food Safety in Schools* is designed to provide school nutrition employees with up-to-date information on food safety. This training contains lessons and activities that teach the food safety concepts needed to prepare and serve food safely and to keep school nutrition facilities safe and sanitary. The chapters cover topics such as: food safety, prevention of foodborne illness, basics of microorganisms, how to keep a clean and sanitary school nutrition facility, process for foodborne illness prevention, and food safety programs in schools.

The USDA has established The Center of Excellence for Food Safety Research in Child Nutrition Programs (<https://www.fns.usda.gov/ofs/center-excellence-food-safety-research-child-nutrition-programs>) at Kansas State University. The Center offers a weeklong food-safety training program, *Serving Up Science: The Path to Safe Foods In Schools* (<https://www.cnsafefood.k-state.edu/resources/serving-up-science/>).

Food safety training can provide credit toward USDA Professional Standards requirements (<https://www.fns.usda.gov/school-meals/professional-standards>).

Throughout the Menu Planner is valuable, science-based food safety information as it applies to each topic. The USDA *Food-Safe Schools Action Guide* (Action Guide) (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>) is a valuable resource that can help you build on this information and create a culture of food safety throughout the school community. You are the food safety expert and champion to lead efforts to build a culture of food safety in your schools.

Creating a culture of food safety means more than managing food safety practices. It calls for you to use established and innovative approaches to communicate and partner with various groups to weave food safety practices into day-to-day school activities. The Action Guide identifies Federal food safety requirements for schools, as well as other important areas to address for a top-notch food safety program. The Action Guide also identifies the roles that others (teachers, parents, school nurses, etc.) in the school community play in the school's food safety efforts. A culture of food safety within your school community will be evident when food safety behaviors are routinely practiced and demonstrated.

## Food-Safe Schools Action Guide

USDA's *Food-Safe Schools Action Guide* (Action Guide) (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>) provides quick access to practical resources for creating a culture of food safety. The Web-based version provides links to a host of online resources to help you manage food safety in your school district. The Action Guide contains three parts:

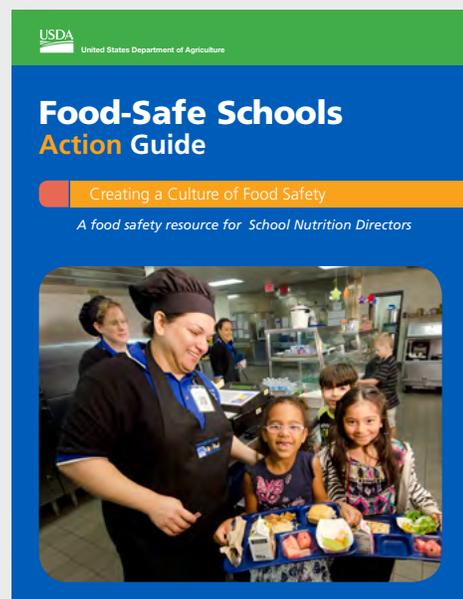
- A checklist to help assess your current food safety efforts
- Action sheets on areas of food safety to improve your program and move it to the next level of excellence
- Communication tips and strategies to enlist the support of your school community in creating a culture of food safety.

The Action Guide starts with a checklist to assess your current food safety practices for strengths and areas for improvement. Completing this checklist is one of the first steps in developing a food safety plan that encompasses the entire school community. Remember, building food-safe schools isn't just completing a checklist. You are building a culture of food safety throughout the school community. That means fostering food safety as a value in the whole school community.

The second part of the Action Guide consists of action sheets, each covering the same food safety areas surveyed in the checklist. You will find basic background information, specific next steps, and guidance resources.

The final step in creating a culture of food safety involves communication. Communication and culture are two sides of the same coin. Your commitment to food safety needs to be visibly demonstrated to the school community. When you talk about food safety, you show food safety is a value. Ask for input from your school community partners and encourage them to become long-term partners in working toward shared goals. The Action Guide includes tips for communicating with key groups—school administrators, teachers, parents, students, school nutrition managers, school nurses, your local health department, emergency management planners, and cooperative extension educators. This part also offers communication strategies specific for each group, and resources to support these strategies.

Throughout this Menu Planner, the Action Guide will be referenced along with other resources to help you create your local food safety program and a schoolwide culture of food safety.



## A CLOSER LOOK AT SCIENCE-BASED DIETARY GUIDANCE RELATED TO SCHOOL MEALS

By law, the science behind the *Nutrition Standards in the National School Lunch and School Breakfast Programs* is based on these three resources:

- *Dietary Guidelines for Americans*
- *School Meals: Building Blocks for Healthy Children*
- **Dietary Reference Intakes (DRIs).**

This section gives an overview of these resources related to school nutrition. Additionally, it addresses the USDA Food Guidance System, MyPlate, which can be used:

- To reinforce the food group-based approach to menu planning
- In educational and marketing outreach to the school community
- To coordinate and reinforce classroom and lunchroom nutrition education efforts.

### Dietary Guidelines for Americans

What are the *Dietary Guidelines for Americans*?

Developed jointly by the U.S. Department of Agriculture and U.S. Department of Health and Human Services, the Dietary Guidelines for Americans are the Nation's science-based guidance on how to eat for good health. The Guidelines encourage all Americans to start and maintain a healthy eating routine. Along with physical activity, improving what you eat can help you reduce your risk of chronic diseases, such as diabetes, heart disease, some cancers, and obesity.

The *Dietary Guidelines* focuses on these main takeaways for Americans:

- Follow a healthy dietary pattern at every life stage.
- Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences, cultural traditions, and budgetary considerations.

- Focus on meeting food group needs with nutrient-dense foods and beverages, and stay within calorie limits.
- Limit foods and beverages higher in added sugars, saturated fat, and sodium.

# The Guidelines

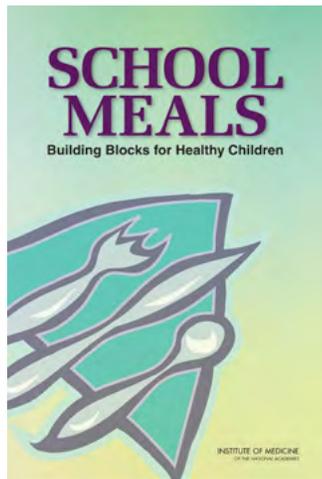
Make every bite count  
with the *Dietary Guidelines for Americans*. Here's how:



The NSLA requires that school meals reflect the latest *Dietary Guidelines*. The NSLP and SBP meal patterns ensure school meals are consistent with the *Dietary Guidelines*.

While physical activity is not part of menu planning, it is integral to *Dietary Guidelines* recommendations, and you can play a big role in advocating for physical activity as part of a comprehensive approach to safeguarding students' well-being. See Take a Closer Look feature *Promoting Physical Activity* for physical activity promotion resources.

### HMD Report: “School Meals: Building Blocks for Healthy Children”



At the USDA's request, the Health and Medicine Division (HMD) convened a committee to develop recommendations to revise school meal standards and requirements so that school meals would be more healthful. This committee included experts in health, nutrition, school food service,

and economics. In its 2009 report, *School Meals: Building Blocks for Healthy Children* (HMD School Meals Report), the committee advised that the USDA adopt standards for menu planning for:

- Increasing the amount and variety of fruits, vegetables, and whole grains.
- Setting a minimum and maximum level of calories.
- Focusing more on reducing saturated fat and sodium.

More specifically, in its report, the committee advised:

- Aligning school meals with the latest Dietary Guidelines and DRIs.
- Setting maximum calorie levels for meals for the first time.

- Reducing the sodium content of school meals gradually over time.
- Planning weekly menus around foods rather than a set of nutrients.
- Including greater amounts and variety of vegetables and fruits.
- Replacing a substantial amount of refined grain products with products rich in whole grains.
- Substituting fat-free or 1% (low-fat) milk for whole or 2% milk.

USDA issued updated regulations based on the HMD School Meals Report recommendations. Thus, the HMD report provides the basis for the school meal patterns.

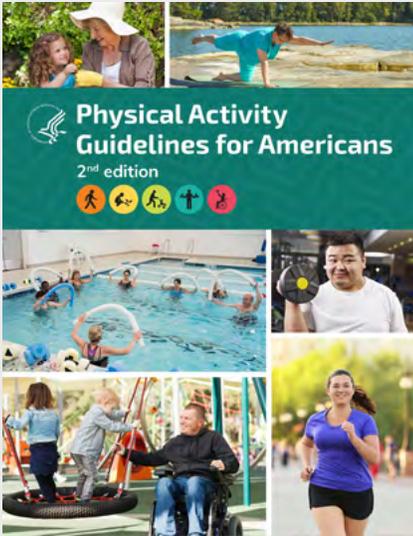
### School Meal Standards

Students need nutritious foods for growth, development, and academic success. School meals play a key role in student health. Your meals can give students the energy and nutrients they need for good health. This, in turn, provides greater opportunity for success in school and beyond.

The school meal pattern seeks to ensure that all the foods and beverages children access in school optimize their health and do not put them at a higher risk for chronic conditions, such as diabetes and heart disease. The USDA relied on the HMD School Meals Report as the basis for nutrition standards. These science-based standards reflect the dietary needs of students and an appropriate balance among food groups. The committee recommended daily nutrient specifications for breakfast and lunch averaged over 5 days for over 20 different nutrients (including calories, protein, fat, saturated fat, *trans* fat, fiber, sodium, and other select vitamins and minerals). Adopting these recommendations also brought school meal requirements up to date with the Dietary Guidelines to provide children an array of vital nutrients in a feasible way for schools.

USDA's FBMP system is designed to meet these nutrition goals. The meal patterns provide approximately one-third of the DRIs for selected nutrients for lunch and approximately one-fourth of the DRIs for selected nutrients for breakfast.

## Promoting Physical Activity



The *Physical Activity Guidelines for Americans* (<https://health.gov/paguidelines/>), issued by the U.S. Department of Health and Human Services, recommend that children and adolescents ages 6 through 17 years do 60 minutes (1 hour) or more of moderate-to-vigorous physical activity daily. Yet, many children and adolescents do not meet this goal. Your involvement in promoting physical activity is key to ensuring a healthy future for your students. Work with principals, teachers, and parents to help make schools healthier places to learn, not only by offering quality nutritious food, but also by teaching children about the importance of nutrition and a healthy, active lifestyle.



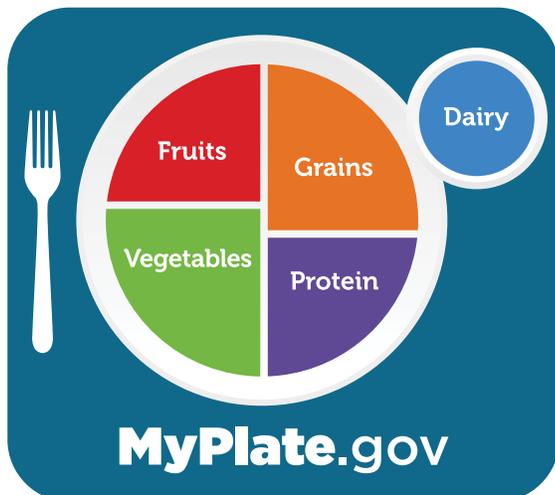
## MyPlate

MyPlate (<https://www.myplate.gov/>) is an easy-to-understand tool intended to help consumers make healthier food choices. The graphic represents the five food groups that are the building blocks for a healthy plate. MyPlate food groups are similar to the meal components in school meal patterns with one exception. Cheese and yogurt are in the dairy group of MyPlate, but are considered meat alternates for school meals. MyPlate is a great educational tool to use with students to reinforce healthful eating behaviors.

### Key Messages for MyPlate:

- Make half your plate fruits and vegetables.
- Make at least half of your grains whole.
- Vary your protein routine.
- Move to low-fat or fat-free milk or yogurt

A variety of interactive tools are available at (<https://www.myplate.gov/>). Help teachers and parents use the latest nutrition education tools; encourage both to visit the website.





## Nutrition 101: A Taste of Nutrition and Fitness – 4th Edition

*Nutrition 101: A Taste of Food and Fitness, 4th Edition* (<https://theicn.org/icn-resources-a-z/nutrition-101/>) provides a basic overview of nutrition and helps to underscore the importance of nutrition in daily life. The program is a professional development course for school nutrition staff. Through a variety of learning activities, participants learn about nutrition on a personal level. The goal of *Nutrition 101* is to provide basic nutrition knowledge and skills that can be applied at home and in schools.

The Institute of Child Nutrition's (ICN), *Nutrition 101* consists of an Instructor's Manual, a Participant's Workbook, PowerPoint presentations and an assessment. *Nutrition 101* features seven lessons:

1. Nutrition Is Important to You!
2. Tools for Guiding Food Choices
3. The Energy Nutrients
4. Vitamins and Minerals
5. Alternate Eating Patterns
6. Putting it All Together
7. Nutrition Issues in the Media.

You will find these resources at the ICN iLearn Resource Center (<https://theicn.org/>). An online version of the course is available through ICN's course catalog under School Nutrition. Check to see whether the training you provide credits toward USDA Professional Standards requirements (<https://www.fns.usda.gov/cn/professional-standards>). For access to hundreds of low-cost or free trainings, visit the Professional Standards Training Database (<https://professionalstandards.fns.usda.gov/>).



### READY, SET, GO WITH SCHOOL MENU PLANNING

Now that you have learned general aspects of FBMP, as well as the nutrition rationale for the recommendations, you are ready to dive into the details of menu planning in chapter 2.

Before moving on, let's summarize some key points of this chapter:

- Since their inception, school meals have played a vital role in protecting the health and well-being of America's children.
- While many children in the United States consume healthy diets and are physically active, a significant number experience food insecurity, do not eat healthfully, are inactive, and/or are overweight or obese.
- The prevalence of overweight, obese, and/or physically inactive students led the Federal Government to update the nutrition standards for school meals.

- The primary aspects of FBMP are:
  - Grade groups
  - Meal components
  - Meal patterns
  - Dietary specifications.
- A culture of food safety is critical in ensuring students' meals are consistently safe and nutritious.
- FBMP has built-in flexibility, so you can plan your menus to meet the needs of your district, schools, and students.

You and your staff plan, prepare, and serve great-tasting, nutritious, safe meals every day of the school year. That is not easy. Just know that you and your team are vital in ensuring students are properly nourished and ready to learn. Now, let's focus on school menu planning.

**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**

1. What are the four primary aspects of Food-Based Menu Planning?
2. What are the five meal components in Food-Based Menu Planning?
3. Dietary specifications give ranges or limits for calories and which three nutrients?
4. School food authorities are required to have a food safety program based on what principles?
5. When food-safe behaviors are valued and are second-nature, a school community has created what?

**If you got the answers right, great job! You are ready for the next chapter. If you missed any, review that section of the chapter before moving on to the next chapter.**



## LINKS TO ADDITIONAL RESOURCES

The Center of Excellence for Food Safety Research in Child Nutrition Programs, Kansas State University, Manhattan, KS (<https://cnsafefood.k-state.edu/>).

The Center of Excellence for Food Safety Research in Child Nutrition Programs, Serving Up Science: The Path to Safe Foods In Schools, Kansas State University, Manhattan, KS (<https://www.cnsafefood.k-state.edu/resources/serving-up-science/>).

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U.S. Department of Health and Human Services and U.S. Department of Agriculture. *Dietary Guidelines for Americans* (<https://www.dietaryguidelines.gov>).

U.S. Department of Agriculture, Food and Nutrition Service, Child and Adult Care Food Program Meal Patterns (<https://www.fns.usda.gov/cacfp/meals-and-snacks>).

U.S. Department of Agriculture, Economic Research Service, Child Nutrition Programs Briefing Room, Washington, DC (<https://www.ers.usda.gov/topics/food-nutrition-assistance/child-nutrition-programs/>).

U.S. Department of Agriculture, Food and Nutrition Service, Food-Safe Schools Action Guide, 2014, Alexandria, VA (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>).

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U.S. Department of Agriculture, Food and Nutrition Service, Washington, DC (<https://www.fns.usda.gov/>).

U.S. Department of Agriculture, Food and Nutrition Service, Professional Standards (<https://www.fns.usda.gov/school-meals/professional-standards>).

U.S. Department of Agriculture, Food and Nutrition Service, School Meals, Alexandria, VA (<https://www.fns.usda.gov/cn/nutrition-standards-school-meals>).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition, Alexandria, VA (<http://www.fns.usda.gov/tn/team-nutrition>).

U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, MyPlate, Alexandria, VA (<https://www.myplate.gov/>).

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Childhood Obesity Facts (<https://www.cdc.gov/healthyschools/obesity/facts.htm>).

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Physical Activity Facts (<https://www.cdc.gov/healthyschools/physicalactivity/facts.htm>).

U.S. Department of Health and Human Services, Physical Activity Guidelines (<https://health.gov/our-work/nutrition-physical-activity/physical-activity-guidelines/about-physical-activity-guidelines>).



# TODAY'S MENU

Choose at least 3 colors.  
And be sure to include a  
fruit or vegetable to make  
a healthy school lunch!



## Protein

(CHOOSE 1)

- Oven-Fried Chicken
- Grab 'n Go Hummus with Pita
- Bistro Salad Plate

## Grains

(CHOOSE 1)

- Warm Roll
- Grab 'n Go Hummus with Pita

## Vegetables

BISTRO SALAD PLATE OR (CHOOSE 2)

- Mashed Potatoes
- Fresh Steamed Broccoli
- Crunchy Carrots and Celery

## Fruit

(CHOOSE 1)

- Cool Honeydew Melon
- Fresh Grapes
- Cinnamon Apples

CH.2

# Food-Based Menu Planning

# Food-Based Menu Planning

## CH.2

In chapter 1, you learned general aspects of Food-Based Menu Planning (FBMP) as well as the nutritional basis for the recommendations. Now you are ready to check out the meal components, meal patterns, and dietary specifications in more detail. FBMP helps you serve economical meals that are varied, balanced, safe, wholesome, and health promoting.

### In this chapter, you will learn about:

- The benefits of FBMP for your students, your program, and your community.
- The five meal components and how to credit foods in each group toward meal pattern requirements for a reimbursable meal.
- The importance of using the *Food Buying Guide for Child Nutrition Programs (FBG)*, and the *Whole Grain Resource for the National School Lunch and School Breakfast Programs* (Whole Grain Resource).
- The meal patterns and dietary specifications for each grade group (K–5, 6–8, 9–12) for lunch and breakfast.
- Food safety concerns for each meal component.

### INTRODUCTION

The Food-Based Menu Planning (FBMP) system supports the meal patterns and dietary specifications (see Appendix 2.A). Since all schools are required to implement FBMP, you can adapt recipes and borrow best practice tools with confidence.

For students, the benefits of FBMP are not limited to just nutritious meals. Rather, students learn how to build a healthy plate. Meals clearly identify different food groups needed for good health. Each day in the cafeteria, students actively participate in making healthy food choices. This Menu Planner includes tips for encouraging student choices that support growth, development, activity, and healthy

habits. The skills students gain in your cafeteria help them develop healthy dietary patterns for life.

The FBMP system's focus on food facilitates building a culture of food safety. Your food handling practices from receiving through serving address possible food safety hazards in each food group and in each step of menu planning. Making food safety a part of menu planning facilitates food safety education and engagement with teachers, students, and the school community. It is a framework you can use to maximize staff training and community partner education. Regarding staff training, be sure to check out the resources available to assist you in meeting USDA Professional Standards requirements at <https://professionalstandards.fns.usda.gov/>.

Local communities also benefit from FBMP. Your menus are a teaching tool for others. They illustrate how to plan and serve a variety of great tasting foods that contribute to health. The USDA encourages schools to serve locally grown and produced foods. This connection between farm and school simultaneously benefits your students and the community. Your program can contribute to the economic health of your region, and students will become more engaged in how and where food is grown.

Finally, school meals are a central focus of school wellness committees, which include a wide variety of community stakeholders. Demonstrating success in the cafeteria is motivating and empowering for school wellness committees.

The primary goal of FBMP is to assist school food authorities (SFAs) in planning menus that meet the nutrition goals when averaged over a school week. The National School Lunch Program (NSLP) and School Breakfast Program (SBP) have several nutrition goals for menus, including:

- Approximately one-third of the daily requirements at lunch and one-fourth of the daily requirements at breakfast for total calories and more than 25 key nutrients.
- Limits on calories and nutrients often consumed in excess
  - Saturated fat
  - Sodium
  - *Trans* fat.

FBMP uses meal patterns and grade groups as planning tools. It requires specific meal components to be offered in specific amounts in order to qualify as a reimbursable meal.

After reading this chapter, you will understand FBMP and how best to implement it in your school. Let's get started by delving into the meal components used in FBMP.

## MEAL COMPONENTS

FBMP includes five meal components: fluid milk, fruits, vegetables, grains, and meats/meat alternates (M/MA). FBMP requires specific meal components served in specific amounts in meal patterns at lunch and breakfast.

As mentioned in chapter 1, lunch and breakfast meal patterns differ depending on grade groups. To meet reimbursable meal criteria, you will plan menus that provide the meal components in the daily and weekly required minimum amounts. Traditional 5-day-week menu examples appear in this Menu Planner. In the appendix for this chapter, you will find meal patterns for shorter/longer weeks. These alternate patterns adjust weekly meal component requirements; the daily requirements are similar for all menu weeks.

Each *meal component* has a *daily required minimum* serving amount to meet the meal pattern requirement. Your daily menu must provide at least this amount of each meal component for reimbursement. Here is an example: In the SBP, 1 cup of fruit is the required minimum amount for breakfast for all grade groups. Planning a menu with less than 1 cup of fruit means the meal does not meet the SBP meal pattern. The daily required minimum serving amounts for each component differ for lunch and breakfast.

To meet the daily required minimum serving amount of a meal component, you can either plan a single food or combine multiple foods. For example, 1 cup of apple slices, *OR* ½ cup of 100% orange juice *and* ½ cup grapes (1 cup total) are two ways to meet the daily required 1 cup of fruits at breakfast.

Each *meal component* has a *minimum creditable amount*. Crediting refers to how a food counts toward the required component for reimbursement. The *minimum creditable amount* is the smallest portion of a food that counts toward component requirements, for example ⅓ cup green beans. Always round down when calculating creditable amounts to ensure meal components are met. Understanding minimum creditable amounts helps you plan reimbursable meals while considering food costs. If you serve food items in portions smaller than the minimum creditable amount, they cannot count toward reimbursement requirements. In this chapter, you will read about each meal component's specific crediting details and which tools to use to determine crediting.

The *Food Buying Guide for Child Nutrition Programs* (FBG) (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>) is the resource for NSLP and SBP menu planning. It should be your go-to reference for crediting information. The resource is available as a downloadable PDF, the FBG Interactive Web-Based Tool, and the FBG Mobile App. Each meal component section has specific details on crediting. *Always round down* when calculating creditable amounts to ensure meal components are met.



**Keep these meal component criteria in mind during menu planning:**

- Include all of the required meal components for the meal.
- Meet at least the daily required minimum serving amount of each component.
- Meet the total weekly required amount of each component.
- Check that when multiple food items fulfill a daily required component, at least minimum creditable amounts are planned.
- Always round down when calculating component crediting.

The primary goal of FBMP is to assist school food authorities (SFAs) in planning menus that meet the nutrition goals when averaged over a school week. The National School Lunch Program (NSLP) and School Breakfast Program (SBP) have several nutrition goals for menus, including:

- Approximately one-third of the daily requirements at lunch and one-fourth of the daily requirements at breakfast for total calories and more than 23 key nutrients.
- Limits on calories and nutrients often consumed in excess
  - Saturated fat
  - Sodium
  - Trans fat.

FBMP uses meal patterns and grade groups as planning tools. It requires specific meal components to be offered in specific amounts in order to qualify as a reimbursable meal.

Let's review each meal component for foods included, crediting information, and other helpful tips. Then, you will explore how these meal components fit into the meal patterns to help meals meet the dietary specifications.



Be sure to download the FBG Mobile App!  
Available on Google Play and Apple App Stores.  
(<https://www.fns.usda.gov/tn/food-buying-guide-mobile-app>).

**Fluid Milk**

Fluid milk is the simplest component group to understand, because the only food in this component is milk. Certain other dairy foods that are made from milk, such as yogurt and cheese, are in the M/MA meal component. The milk section of the FBG lists specific varieties of pasteurized milk, including lactose-reduced or -free versions, approved for use in school meals. All milk must have vitamins A and D added at levels specified by the Food and Drug Administration (FDA). The milk must also meet specific State and local standards (refer to State guidance for these standards). Schools have the option to provide a nondairy milk substitute to a nondisabled student (see Take a Closer Look). Additionally, while water must be made available to students during meal service, SFAs shall not promote or offer water or other beverage as an alternative selection to fluid milk. Water is not a meal component or food item for the reimbursable meal (See SP 28-2011 in Additional Resources).

At least two choices of milk must be offered at every meal, and at least one choice must be unflavored. Allowable choices include:

- Unflavored fat-free and 1% (low-fat) milk
- Flavored fat-free and 1% (low-fat) milk.

**Note that no flavored milk, including fat-free and 1% (low-fat), can be served to preschoolers. Schools serving meals to preschool children (ages 1 through 4) must follow the NSLP/SBP regulations, which reflect the Child and Adult Care Food Program (CACFP) meal pattern for this age group.**

Milk is measured by volume, and the daily required minimum serving amount for fluid milk for all grade groups is 1 cup or 8 fluid ounces, as Chart 1 indicates. Most schools purchase milk in a single-serve container that meets the daily requirement. Crediting of milk in amounts that are less than 1 cup is limited to smoothies. Fluid milk used in smoothies can credit toward this component



**Fluid Milk Substitutes**

If you choose to offer nondairy milk to nondisabled students, you must follow substitution requirements to assure the product is nutritionally equivalent to fluid milk for nine nutrients. Allowable substitutes for fluid milk must meet these specific nutrition requirements for reimbursable meals. The nondairy beverage(s) must provide the nutrients listed below and meet FDA fortification guidelines. You must first verify that the nondairy beverage(s) you offer are allowable fluid milk substitute(s) for meals to be reimbursable. For information on meal modifications to accommodate students with disabilities, see chapter 6.

<b>Nutrient</b>	<b>Per cup (8 fl oz)</b>	<b>Nutrient</b>	<b>Per cup (8 fl oz)</b>
Calcium	276 mg	Phosphorus	222 mg
Protein	8 grams	Potassium	349 mg
Vitamin A	500 IU	Riboflavin	0.44 mg
Vitamin D	100 IU	Vitamin B-12	1.1 mcg
Magnesium	24 mg		

requirement. Remember, plan at least 1 cup fluid milk; when a smoothie contains less than 1 cup milk per portion, additional fluid milk must be offered to provide 1 cup. The minimum creditable amount of milk is  $\frac{1}{4}$  cup. Milk used in preparation of menu items other than smoothies does not credit toward the fluid milk requirement.



### Fluid Milk

**(1) Provide 1 cup (8 fl oz) serving size for all grade groups.**

**(2) For smoothies, the smallest creditable amount for the milk component is  $\frac{1}{4}$  cup.**

**(3) Include at least two choices at each meal; at least one choice must be unflavored.**

**(4) Choose from unflavored or flavored fat-free and 1% (low-fat) milk.**

**(5) Follow the guidance on milk substitutions when these options are offered to students.**

### Fruits

As mentioned in chapter 1, the *Dietary Guidelines* (<https://health.gov/dietaryguidelines/>) include fruit, especially whole fruits as an important component of an overall healthy eating pattern. Among the many nutrients fruits provide are dietary fiber, potassium, and vitamin C. Although fruit juice can be part of healthy eating patterns, it is lower in dietary fiber than whole fruit. School meals can feature locally grown fruit (when in season).

The fruits component includes:

- Fresh (apples, oranges, grapes, etc.)
- Frozen (blueberries, sliced peaches, melon balls, strawberries, etc.)
- Canned in juice, water, or light syrup (applesauce, apricots, pears, mixed fruit, etc.)
- Dried (cranberries, raisins, cherries, etc.)
- Pasteurized, full-strength (100%) fruit juices (orange, grapefruit, apple, etc.).

Fruits are measured in volume. The daily required minimum serving amounts vary by meal type and grade group. Chart 2 summarizes the required minimum daily serving amounts.

Use the FBG to determine how much fruit to purchase to provide  $\frac{1}{2}$  cup and 1 cup serving amounts for your menu needs. The FBG chart shows “as purchased” and “edible portions” for

*please see next page for Chart 2*

### Chart 1

Fluid Milk Daily/Weekly Required Serving Amounts

MEAL	GRADE GROUP	DAILY MINIMUM	WEEKLY MINIMUM
Lunch	(K–5, 6–8, 9–12)	1 cup (8 fl oz)	5 cups
Breakfast	(K–5, 6–8, 9–12)	1 cup (8 fl oz)	5 cups

a variety of fruits. Edible portions of fresh fruit do not include inedible peels, cores, and rinds. Canned fruit choices include “with liquid” and “drained.” Frozen fruits include liquid from the thawing process. The FBG Calculator allows you to choose a variety of serving sizes. (More information on using the FBG Interactive Web-Based Tool, and the FBG Calculator is covered in the vegetables section).

The smallest amount that credits toward the fruits component is  $\frac{1}{8}$  cup. Any single food item containing less than  $\frac{1}{8}$  cup fruit does not credit toward the requirement. Using  $\frac{1}{8}$  cup or larger serving utensils on a fresh fruit or vegetable bar helps students select a creditable portion of a variety of fruits. If a student selects four different fruits in  $\frac{1}{8}$ -cup portions, it credits as  $\frac{1}{2}$  cup fruit. If you mix several different fruits, the amount of each fruit may be less than  $\frac{1}{8}$  cup in the portion so long as the served amount is at least  $\frac{1}{8}$  cup.

Dried fruit credits for twice its volume. For example,  $\frac{1}{8}$  cup of dried cranberries, the smallest creditable amount of fruits, credits as  $\frac{1}{4}$  cup. Please note that  $\frac{1}{8}$  cup of any fruit (frozen, fresh, or dried) is the minimum creditable amount;  $\frac{1}{16}$  cup (1 tablespoon) of raisins does not credit as  $\frac{1}{8}$  cup fruit.

To be creditable, juices must be pasteurized, 100% fruit juice. Fruit juice is limited to half or less of the fruits planned for the week at both lunch and breakfast. This is a weekly, not daily, limit. For example, your daily breakfast menu may include (a)  $\frac{1}{2}$  cup fruit and  $\frac{1}{2}$  cup 100% fruit juice for a total

of 1 cup fruit, or (b) 1 cup of fruit 3 days per week and 1 cup of 100% fruit juice 2 days per week. Both examples comply with the weekly juice limit. Fruit blended in smoothies credits toward juice and counts toward this weekly juice limit.

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**“100% juice can comprise the entire fruits or vegetables component for preschoolers at one meal per day, including snacks.”**

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Some fruit-flavored items *do not* credit toward the fruits component, including snack-type fruit products such as drops, leathers, gummies, and strips.

**Chart 2**

**Fruits Daily/Weekly Required Serving Amounts**

MEAL	GRADE GROUP	DAILY MINIMUM	WEEKLY MINIMUM
Lunch	K–5, 6–8	$\frac{1}{2}$ cup	2½ cups
	9–12	1 cup	5 cups
Breakfast	K–5, 6–8, 9–12	1 cup (8 fl oz)	5 cups



## Fruits

**(1) At lunch, provide at least  $\frac{1}{2}$  cup daily for grades K–5 and 6–8, and 1 cup daily for grades 9–12.**

**(2) At breakfast, provide at least 1 cup daily for all grade groups.**

**(3) The smallest creditable amount for the fruits component is  $\frac{1}{8}$  cup.**

**(4) Credit dried fruits at twice the volume (e.g.,  $\frac{1}{8}$  cup credits as  $\frac{1}{4}$  cup).**

**(5) Limit 100% fruit juice to half or less of the fruits component weekly at both lunch and breakfast, including fruits credited in smoothies.**

Seasonal fruits and vegetables provide peak flavor at affordable prices. Plan to offer local produce when it is in season.

## Vegetables

The Dietary Guidelines specify that healthy eating patterns include a variety of vegetables from all of the five vegetable subgroups—dark green, red and orange, beans and peas (legumes), starchy, and other. The NSLP meal patterns reflect this guidance. Vegetables are an important source of many nutrients, including dietary fiber, potassium, vitamin A, vitamin C, vitamin K, copper, magnesium, vitamin E, vitamin B6, folate, iron, manganese,

thiamin, niacin, and choline. Each of the vegetable subgroups contributes different combinations of nutrients, making it important for individuals to consume vegetables from all the subgroups. When in season, local vegetables can be featured in school menus.

The vegetables component includes:

- Fresh (lettuces, carrots, spinach, radishes, celery, cucumber, jicama, etc.)
- Frozen (broccoli, vegetable blends, peas and carrots, potatoes, sweet potatoes, etc.)
- Canned (green beans, corn, mixed vegetables, peas, black beans, tomato sauce, etc.)
- Dried (lentils, pinto beans, split peas, dehydrated potato slices and flakes, etc.)
- Pasteurized, full-strength (100%) vegetable juice (carrot, mixed vegetables, tomato, etc.).

Just as with milk and fruits, vegetables are also measured in volume. The required minimum serving amounts for lunch vary by grade group. Chart 3 summarizes daily and weekly required minimum serving amounts for vegetables at lunch. Vegetables are not a required meal component at breakfast, but may be served in place of fruits. Information on how to credit vegetables for the required fruits component at breakfast is covered later in this chapter and in chapter 3.

The vegetables component contains the five vegetable subgroups: dark green, red/orange, beans and peas (legumes), starchy, and other vegetables. Add both color and interest to weekly menus by planning meals with a variety of vegetables. Chart 4 summarizes the weekly minimum serving amount of each subgroup to offer by grade group.

### CHART 3

#### Vegetables Daily/Weekly Required Serving Amounts\*

*please see page 43 for Chart 4*

MEAL	GRADE GROUP	DAILY MINIMUM	WEEKLY MINIMUM
Lunch	K–5, 6–8	$\frac{3}{4}$ cup	$3\frac{3}{4}$ cups
	9–12	1 cup	5 cups

\* Please refer to Chart 4 on page 43 for the vegetables subgroup requirements.

*Seasonal Fruits and Vegetables*


FALL	WINTER	SPRING	SUMMER
<b>September</b> <b>October</b> <b>November</b>	<b>December</b> <b>January</b> <b>February</b>	<b>March</b> <b>April</b> <b>May</b>	<b>June</b> <b>July</b> <b>August</b>
Apples Broccoli Brussels Sprouts Cabbage Chinese Cabbage Cauliflower Celery Root Chicory Cranberries Cucumbers Dates Eggplant Fennel Grapes Greens Lettuce: Head or Iceberg Leaf Lettuce Mushrooms Nuts Okra Mandarin Oranges Pears Chili Peppers Sweet Peppers Persimmons Pomegranates Pumpkin Quince Shallots Spinach Winter Squash Star Fruit Sweet Potatoes Turnips	Avocados Broccoli Brussels Sprouts Cabbage Chinese Cabbage Cauliflower Celery Root Chicory Dates Fennel Grapefruit Greens Lemons Wild Mushrooms Mandarin Oranges Sweet Oranges Pears Spinach Sweet Potatoes Tangerines Turnips	Asparagus Avocados Basil Beans Beets Berries Broccoli Cabbage Chinese Cabbage Cucumbers Lettuce: Head or Iceberg Mangoes Okra Sweet Oranges Papayas Peas Chili Peppers Sweet Peppers Radishes Rhubarb Shallots Spinach Summer Squash Turnips	Apricots Basil Beans Beets Blackberries Blueberries Boysenberries Carrots Cherries Collards Corn Cucumbers Dates Figs Grapes Green Beans Limes Mangoes Melons Nectarines Okra Peaches Pears Chili Peppers Sweet Peppers Plums Raspberries Summer Squash Tomatoes Watermelon

Learn more about the vegetable subgroups and how to use the FBG Interactive Web-Based Tool, and the FBG Calculator to determine amounts of vegetables for crediting in the *Take a Closer Look* beginning on page 46. For manufactured products, the amount of a vegetable subgroup may appear on a Child Nutrition (CN) label or Product Formulation Statement (PFS).

The smallest amount that credits toward the vegetables component is  $\frac{1}{8}$  cup. Any volume of a vegetable that is less than  $\frac{1}{8}$  cup does not credit toward the vegetables requirement, with these exceptions: tomato paste or tomato purée. Both are concentrated forms of tomatoes; therefore, 1 tablespoon of tomato paste or 2 tablespoons tomato purée credits as  $\frac{1}{4}$  cup red/orange vegetable. Your lunch menu must still meet the total daily minimum serving amount,  $\frac{3}{4}$  cup or 1 cup vegetables depending on the grade group.

Raw leafy greens credit at half their volume. For example, 1 cup of chopped romaine lettuce credits as  $\frac{1}{2}$  cup dark green vegetable. A cooked leafy green, such as spinach, credits for the actual volume;  $\frac{1}{2}$  cup cooked spinach credits as  $\frac{1}{2}$  cup dark green vegetable.

Beans and peas (legumes) require special attention for crediting. This subgroup refers to dry mature beans, lentils, and split peas (canned, dried, or frozen). As noted in *Take a Closer Look* about vegetable subgroups, wax beans and green peas are not part of this subgroup. Bean and peas (legumes) can credit toward either the vegetables or M/MA component. However, they can only credit toward one meal component in a menu item, not both. The M/MA section of this chapter provides more information on crediting legumes toward the vegetables or M/MA component.

To be creditable, vegetable juice must be pasteurized, 100% vegetable juice. Full-strength vegetable juice blends that contain vegetables from the same subgroup may contribute toward that vegetable subgroup. Vegetable juice blends containing vegetables from more than one subgroup may credit as additional vegetables. Vegetable juice may credit toward up to half of the vegetables at lunch weekly, provided all subgroups are met. Vegetables blended in smoothies may credit toward the vegetables component and count toward the weekly juice limit.

**“Full-strength juice can comprise the entire fruits or vegetables component for preschoolers at one meal per day, including snacks.”**

## CHART 4

### Vegetable Subgroup Weekly Required Serving Amounts

In addition to the subgroups amounts listed, weekly menus need to include additional vegetables (1 cup for grades K–8 and  $1\frac{1}{2}$  cups for grades 9–12) to meet weekly minimums of vegetables for each grade group. Additional vegetables can be from any subgroup.

VEGETABLE SUBGROUP	WEEKLY MINIMUM K–5, 6–8	WEEKLY MINIMUM
Dark Green*	$\frac{1}{2}$ cup	$\frac{1}{2}$ cup
Red/Orange	$\frac{3}{4}$ cup	$1\frac{1}{4}$ cup
Beans and Peas (legumes)	$\frac{1}{2}$ cup	$\frac{1}{2}$ cup
Starchy	$\frac{1}{2}$ cup	$\frac{1}{2}$ cup
Other*,**	$\frac{1}{2}$ cup	$\frac{3}{4}$ cup

\* Raw leafy greens (including iceberg lettuce) credit for half the volume;  $\frac{1}{4}$  cup credits as  $\frac{1}{8}$  cup.

\*\* The Other vegetable subgroup requirement may be met with any additional amounts from the dark green, red/orange, and beans and peas (legumes) vegetable subgroups.

Vegetables are not a required component at breakfast, but may credit toward part of the weekly fruits component of breakfast. If you choose to credit vegetables toward part of the fruits component of breakfast, then you will need to follow special instructions. More information on vegetables crediting at breakfast appears in the meal patterns section of this chapter and in chapter 3.

To summarize, fluid milk, fruits, and vegetables are the three meal components measured by volume. The last two meal components, grains and M/MA, are credited by weight. Yogurt, however, is the only M/MA that can credit based on volume ( $\frac{1}{2}$  cup) or weight (4 oz).



### **Vegetables**

- (1) At lunch, provide  $\frac{3}{4}$  cup daily for grades K–5 and 6–8 and 1 cup daily for grades 9–12.**
- (2) Meet subgroup weekly requirements across the menu week.**
- (3) The smallest creditable amount for the vegetables component is  $\frac{1}{8}$  cup.**
- (4) Credit raw leafy greens at half the volume.**
- (5) Credit beans and peas (legumes) as a vegetable or as a M/MA, but not both for the same menu item.**
- (6) Limit 100% vegetable juice to half or less of vegetables component weekly, including vegetables credited in smoothies.**
- (7) Follow the substitution instructions if crediting vegetables toward the required fruits component at breakfast.**



**School District:**  
District of Columbia  
Public Schools

**Located:**  
Washington, DC

**Enrollment:**  
51,000

**Website:**  
<http://dcps.dc.gov>

## Monthly Samplings Encourage Students To Choose Fruits and Vegetables

District of Columbia Public Schools highlights a different vegetable on Fresh Feature Fridays (FFF), held once a month at eight schools in the district where DC Central Kitchen is the food service contractor. The FFF initiative developed by DC Central Kitchen has three main goals:

- Expose students to new vegetables and preparation methods.
- Empower students to take ownership of their menus.
- Inform the recipe development team on what students like to eat.

Here is how FFF works:

- A vegetable is featured and prepared three different ways.
- An FFF sampling table is set up in the cafeteria during lunch periods.
- After they finish lunch, students sample the three FFF preparations and vote for their favorite.
- The lunch menu features the winning recipe the following month and on all future menus.

Walker-Jones Education Campus (<http://profiles.dcps.dc.gov/Walker-Jones+Education+Campus>), a pre-K–8th grade school in the district, shared its experience with FFF. During 1 month, the FFF vegetable was carrots. Three

recipes—Herb Roasted Carrots, Carrot Mash (similar to mashed sweet potatoes), and Asian Style Carrots were taste tested. The winner was Asian Style—with sesame oil, ginger, garlic, scallions, and a low-sodium soy sauce. The recipe is a creation of Chef Ed Kwitowski and Registered Dietitian Katie Nash of DC Central Kitchen ([www.dccentralkitchen.org](http://www.dccentralkitchen.org)), the food service contractor for the school.

Students at Walker-Jones are learning to eat and enjoy carrots (and other vegetables) in a variety of ways besides raw with ranch dip. DC Central Kitchen's food is more than 30 percent locally sourced with at least two local ingredients in every meal.

**Fresh Feature Friday winning recipe Asian Style Carrots is in the menu cycle.**





### Vegetable Subgroups

Vegetables are nutritional powerhouses! Different vegetables provide different nutrients for good health. To make sure that students receive a variety of vegetables in school meals, the Meal Pattern requires menu planners to offer vegetables from five subgroups: dark green, red/orange, beans and peas (legumes), starchy, and other vegetables.

#### Vegetable Subgroups

DARK GREEN VEGETABLES	RED/ORANGE VEGETABLES	OTHER VEGETABLES
Bok choy Broccoli Collard greens* Dark green leafy lettuce* Kale* Mesclun* Mustard greens* Romaine lettuce* Spinach* Turnip greens* Watercress*	Acorn squash Butternut squash Carrots Hubbard squash Pumpkin Red peppers Sweet potatoes Tomatoes Tomato juice	Artichokes Asparagus Avocado Bean sprouts Beets Brussels sprouts Cabbage Cauliflower Celery Cucumbers Eggplant Green beans Green bell peppers Iceberg (head) lettuce* Mixed vegetable juice*** Mushrooms Okra Onions Turnips Wax beans Zucchini
STARCHY VEGETABLES	BEANS AND PEAS (LEGUMES)**	
Cassava Corn Fresh cowpeas, field peas, or black-eyed peas (not dry) Green bananas Green peas Green lima beans Potatoes Taro Water chestnuts	Black beans Black-eyed peas (mature, dry) Edamame (immature soy beans) Garbanzo beans (chickpeas) Kidney beans Lentils Navy beans Pinto beans Soy beans Split peas White beans	

\* Raw leafy greens (including iceberg lettuce) credit at half the volume – 1-cup serving credits as ½ cup. Cooked leafy greens credit at the volume served, ½ cup cooked credits as ½ cup.

\*\* Beans and peas (legumes) are a special subgroup. They can credit toward the vegetables or meats/ meat alternates component. A menu item containing beans and peas (legumes) can only credit toward one meal component, *not both*. However, a school may offer two distinct servings of beans and peas (legumes) in one meal, if they are contained in two separate dishes.

\*\*\* Vegetable juice consisting of vegetables from the same subgroup, such as tomato and carrot juice, credits toward that subgroup; otherwise, the vegetable juice credits toward the additional vegetable subgroup.

### Food Buying Guide

The *Food Buying Guide for Child Nutrition Programs* (FBG) (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>) is the essential resource for NSLP and SBP menu planning. USDA created this resource, in part, to help school nutrition professionals calculate the crediting information for produce. The resource is available as:

- The FBG Interactive Web-Based Tool
- A downloadable PDF
- The FBG Mobile App

The vegetables section of the FBG make it easy to correctly categorize vegetable subgroups. The FBG also lists the as-purchased (AP) and the edible portion (EP) amounts for various forms of fresh, frozen, canned, and dried vegetables. As noted under column 4, the default serving size for the meal contribution is  $\frac{1}{4}$  cup. You will calculate larger or smaller (no less than  $\frac{1}{8}$  cup) serving amounts based on what is listed for  $\frac{1}{4}$  cup. For most fruits and vegetables, both the FBG Web-Based Tool and Mobile App allow you to select a different serving size and complete the calculations for you!

Below are calculation examples for romaine lettuce, untrimmed. The steps show you how to manually calculate the amount to purchase for 80  $\frac{1}{2}$ -cup serving amounts using the FBG.

SECTION 2 — VEGETABLES, DARK GREEN SUBGROUP					
1. Food As Purchased, AP	2. Purchase Unit	3. Servings Per Purchase Unit, EP	4. Serving Size Per Meal Contribution	5. Purchase Units For 100 Servings	6. Additional Information
<b>Lettuce, fresh</b> Romaine, untrimmed	Pound	31.30	$\frac{1}{4}$ cup raw vegetable pieces credits as $\frac{1}{8}$ cup in NSLP/SBP	3.20	1lb AP = 0.64 lb ready-to-serve raw lettuce
	Pound	20.90	$\frac{1}{4}$ cup raw vegetable pieces with dressing credits as $\frac{1}{8}$ cup in NSLP/SBP	4.80	

**FBG Calculation**

Here’s how to use the FBG to determine how much romaine lettuce to purchase for 80 ½-cup servings:

1. Compare the column 2 “Purchase Unit” to the column 3 “Servings per Purchase Unit, EP”:

For untrimmed Romaine lettuce

1 lb (Purchase Unit) yields 31.3 ¼-cup servings (Serving Size per Meal Contribution)

2. Convert the Servings per Purchase Unit, EP (¼ cup) to the desired ½-cup serving amount, by dividing by 2:

$31.3 \div 2 = 15.65$  ½-cup servings per lb

3. Determine the total pounds to purchase for 80 ½-cup servings by dividing the number of servings desired (80) by the number of ½-cup servings per pound:

$80 \text{ servings} \div 15.65 \text{ ½-cup servings per pound} = 5.11 \text{ lb untrimmed lettuce}$

You may also use the FBG Calculator on the FBG Interactive Web-Based Tool to determine the amount of food you need to purchase.

**FBG Calculator - Create Shopping List**

Instructions

Asterisks (\*) denote required information.

1 Shopping List Name \* Romaine Lettuce Date MM/DD/YYYY (MM/DD/YYYY)

Select Program - Meal and Age Group/Grade Group to view the meal pattern requirements

2 Program - Meal Select Program Age Group/Grade Group

Meats/Meat Alternates Vegetables Fruits Grains Milk Other Foods **Shopping List**

Buy Purchase Units	Purchase Unit	Food Item Description	Number of Servings	Serving Size
	Pound	Lettuce, fresh, Romaine, Untrimmed, 1/4 cup raw vegetable pieces (credits as 1/8 cup in NSLP/SBP and CACFP)	80	1/2 cup
5.25	Pound	Total	80	

To use the FBG Calculator, you will first enter a name to create a Shopping List and then search for and select:

- Your product under the appropriate meal component tab by clicking on the “Add” button. (lettuce, romaine fresh, untrimmed)
- Enter “Amount of Purchase Units on Hand”
- Click on “Add Serving Size” button and enter the desired size from the drop down menu (1/2 cup)
- Enter the number of servings (80)

Then you will click on the “Shopping List” tab to view the total quantity to purchase for your product.

Note that the FBG Calculator rounds the purchase quantity up to the nearest  $\frac{1}{4}$  lb. For example, in the figure above, you will see that the exact quantity needed for 80  $\frac{1}{2}$ -cup servings is 5.11 pounds; however, the purchase quantity is rounded up from 5.11 lb to 5.25 lbs of untrimmed romaine lettuce. The online FBG Calculator rounds up the purchase quantity slightly to ensure you purchase enough product to meet your needs.

If the FBG does not list a particular form of vegetable, then use the manufacturer’s information or verify the volume by weighing it during preparation. Let’s use the example of bagged, chopped romaine lettuce, which is not in the FBG.

Your chopped romaine package nutrition label lists a serving size of  $1\frac{1}{2}$  cups, or 85 grams. To calculate the purchasing information for a  $\frac{1}{2}$ -cup portion, divide both the serving amount and the weight by 3 (because your portion size is one third of the serving size listed on the bag).

$$1\frac{1}{2} \text{ cups} \div 3 = \frac{1}{2} \text{ cup}; 85 \text{ grams} \div 3 = 28.33 \text{ grams}$$

One ounce weighs about 28 grams. Thus,  $\frac{1}{2}$  cup or 1 oz of the lettuce weighs 28 grams. The 5-lb bag provides 80  $\frac{1}{2}$ -cup servings (about 1 oz by weight): 5 lb x 16 oz per lb = 80 ounces

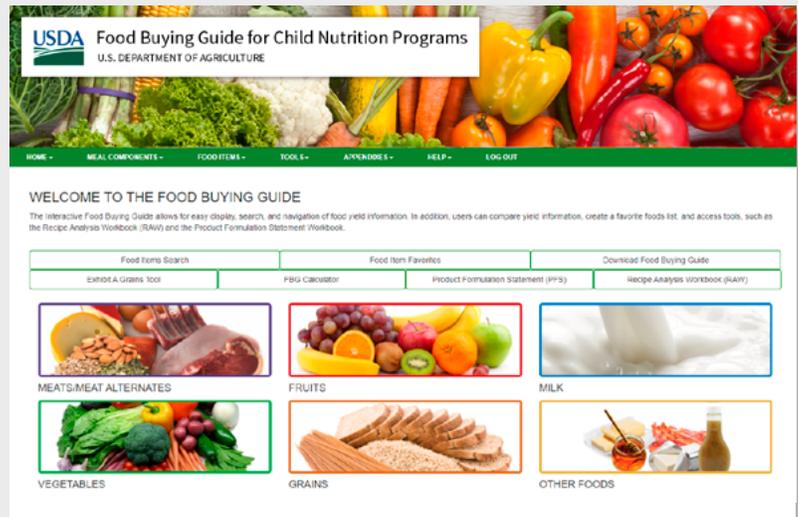
The reason you need to purchase about  $5\frac{1}{4}$  pounds of untrimmed romaine is because the core and other parts are trimmed and discarded during preparation.

What if your bagged lettuce does not have a nutrition label? You will need to verify how many servings are in the package.

### Steps for verifying the number of servings in a package:

1. Measure several (at least six)  $\frac{1}{2}$ -cup portions.
2. Weigh each portion. A gram/ounce scale is a useful tool for light-weight foods such as lettuces.
3. Average the weights.
4. Document your method for verifying the number in your standardized recipe.

Romaine lettuce is a raw leafy green in the dark green vegetable subgroup. Leafy greens credit for half of the volume;  $\frac{1}{2}$ -cup chopped romaine credits for  $\frac{1}{4}$ -cup of dark green vegetable subgroup. Both the  $5\frac{1}{4}$  lb of untrimmed romaine and the 5-lb precut bag each provide 80  $\frac{1}{2}$ -cup servings that credit as  $\frac{1}{4}$ -cup servings of dark green vegetable.





Single vegetables are easy to credit by subgroup. A blended vegetable requires more information. You must know the amount of each vegetable in the blend to credit by subgroup. When the percentage of each vegetable in a blend is unknown, the product credits as additional vegetable. For example, frozen peas and carrots mix credits toward additional vegetables *unless* the percentage of each vegetable is known. If the blend is 50 percent peas and 50 percent carrots by volume, then one ½-cup portion credits as ¼ cup starchy and ¼ cup red/orange vegetable. Vegetable blends that do not include starchy vegetables can also credit to the other vegetable subgroup when amounts are unknown.

To credit a preblended vegetable product by subgroup, ask your supplier for a manufacturer's PFS that includes the percentage of each vegetable in a blend. For a blend prepared on site, use the volume of each vegetable in the standardized recipe to determine the crediting. Here is an example using a four-way salad mix recipe prepared in-house that is 25 percent by volume of each vegetable: romaine, iceberg, carrots, and cabbage.

The recipe calls for:

- 1 quart chopped romaine
- 1 quart chopped iceberg
- 1 quart shredded carrots
- 1 quart shredded cabbage.

The recipe yield is 4 quarts (16 cups) and the serving amount is 1 cup. Each 1-cup portion provides ¼ cup of each ingredient. Each vegetable ingredient credits toward a vegetable subgroup as follows:

- ¼ cup romaine credits as ⅛ cup dark green
- ¼ cup iceberg credits as ⅛ cup other vegetable
- ¼ cup shredded carrot credits as ¼ cup red/orange
- ¼ cup cabbage credits as ¼ cup other vegetable.

A 1-cup portion of the salad mix credits as ⅛ cup dark green, ¼ cup red/orange, and ⅜ cup other vegetable subgroups, for a total of ¾ cup creditable vegetables. Your standardized recipe reflects this per serving information. Please note, to meet the 1-cup daily requirement for the 9–12 grade group, your planned menu needs an additional ¼ cup of creditable vegetable.

### **ChooseMyPlate.gov Vegetable Subgroup Information**

Wondering about the health benefits of the vegetable subgroups? Looking for color photos for marketing materials? Seeking strategies to promote vegetable intake? Check out the Vegetables section of the consumer-friendly site ChooseMyPlate.gov (<https://www.choosemyplate.gov/vegetables>) to find out more information about the various subgroups and other free resources.

## Grains

The Dietary Guidelines note the importance of whole grains as part of an overall healthy eating pattern, and the FBMP is consistent with that guidance. Whole grains are a source of nutrients, such as dietary fiber, iron, zinc, manganese, folate, magnesium, copper, thiamin, niacin, vitamin B6, phosphorus, selenium, riboflavin, and vitamin A. Eighty percent of the weekly grains credited for reimbursable meals must be whole grain-rich, and the remaining weekly grains offered must be enriched or made with enriched grains. Whole grain-rich means that at least 50 percent of the grain in the product is whole grain. The remaining grains must be enriched for the product to be creditable as a whole grain-rich product. Whole-grain and whole grain-rich options in the grains component include:

- Cereal grains (oatmeal, brown rice, quinoa, wheat berries, cracked wheat, whole-meal corn, whole-grain pasta made from cereal grain, etc.)
- Baked goods made from cereal grain flours (breads, rolls, tortillas, pitas, flatbreads, crusts, pancakes, waffles, and some limited dessert items, etc.)
- Ready-to-eat (RTE) cereals (flakes, puffs, shreds, and rings of various grains, granolas, etc.)

Grains are measured by weight and use ounce equivalents (oz eq) as the unit for NSLP/SBP. Grains have both daily and weekly required minimum serving amounts. The daily and weekly required

minimum serving amounts vary by meal type and grade group. Chart 5 summarizes daily and weekly required minimum serving amounts for grains.

The *Whole Grain Resource for the National School Lunch and School Breakfast Programs* (Whole Grain Resource) (<https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-breakfast-programs>) is a useful reference for grains. The Whole Grain Resource contains information to help Program operators determine creditable grains in schools meals. Appendix 2.B of this Menu Planner entitled, “Exhibit A: Grain Requirements for Child Nutrition Programs” features ounce equivalent (oz eq) grains requirements. The FBG Interactive Web-Based Tool includes whole grain-rich and enriched grain foods to help determine purchasing amounts. In addition, the Exhibit A Grains Tool, available on the FBG Interactive Web-Based Tool, can determine the following: the grains contribution for a grain product, the amount of a grain product to serve to meet a specific grains contribution, and the amount of a grains product to serve in order to meet the Minimum Grains Requirement as appropriate for a specific age group/grade group. As noted earlier, grains are credited as oz eq. Foods more easily portioned by volume, such as cooked cereals, pasta, and rice, are converted from oz eq to cup measures.

The smallest amount that credits toward the grains component is  $\frac{1}{4}$  oz eq. Include the oz eq per serving on your standardized recipes. A CN label or PFS will provide oz eq of grains per portion (See pages 56–59 for examples).

### CHART 5

#### Grains Daily/Weekly Required Serving Amounts

All creditable grains must be whole grain-rich or made with enriched grains.

MEAL	GRADE GROUP	DAILY MINIMUM	WEEKLY MINIMUM
Lunch	K–5	1 oz eq	8 oz eq
	6–8	1 oz eq	8 oz eq
	9–12	2 oz eq	10 oz eq
Breakfast	K–5	1 oz eq	7 oz eq
	6–8	1 oz eq	8 oz eq
	9–12	1 oz eq	9 oz eq



## Whole Grain Resource



The USDA developed a helpful guide that addresses whole grain-rich foods. The *Whole Grain Resource for the National School Lunch and Breakfast Programs* (Whole Grain Resource) (<https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-breakfast-programs>) is a must-have resource. This guide answers the questions:

- How do I know if a product meets whole grain-rich criteria?
- What is a whole grain?
- How do I calculate ounce equivalents (oz eq)?

The publication features a helpful decision flow chart which can be used to determine if a food meets the whole grain-rich criteria for foods offered in the NSLP and SBP. In short, whole grain-rich foods must:

- Meet oz eq based on Exhibit A: Grain Requirements for Child Nutrition Programs (Exhibit A) *AND*
- Be labeled with one of the following:
  - Contains at least 8 grams of whole grains (for food items found in Groups A-G of Exhibit A) or 14 grams of whole grains (for food items found in Groups H and I), *OR*
  - Has a CN label indicating it contains a contribution toward the “Grains” component (enriched grains are designated as “Grains (enriched)” on CN labels), *OR*
  - Includes one of the Food and Drug Administration-approved health claim statements for whole grains, *OR*
  - Lists whole grain as the *first* grain ingredient by weight for mixed dishes and as the primary ingredient in nonmixed dishes.

Exhibit A can be found in Appendix 2.B.

### Calculating Ounce Equivalents of Whole Grain-Rich Foods

The Whole Grain Resource explains how to calculate oz eq of grains. *Always round down* for oz eq; this assures required grains serving amounts are fully met.

Total product weight or grams of creditable grain per portion provides the basis for calculating oz eq, or crediting. Exhibit A provides crediting information on total product weight.

A product can be credited in different ways, and you have the option to decide which crediting method to use. Let’s take a look at crediting methods from the Whole Grain Resource for two different example products: bread and pasta.

### Calculation Example for Bread

Oz eq for a slice of bread can be calculated two ways based on:

- A. Total finished weight of creditable product, or
- B. Grams of creditable grain ingredient per portion

For calculations based on the weight of product, use Exhibit A to find the appropriate group and standard weight.

Standards for calculations

Bread is in Group B of Exhibit A; the standard weight for a 1 oz eq is 1 ounce.

The amount of creditable grain required for 1 oz eq in Group B is 16 grams.

Example bread

- Contains whole-wheat flour and enriched flour with no non-creditable grains
- Weighs 0.9 oz per slice
- Contains 17 grams of creditable grain per slice, according to the PFS.

Let's try the two calculation methods for determining creditable oz eq:

**A. To determine oz eq by product weight:**

$$0.9 \text{ oz slice} \div 1 \text{ oz eq standard} = 0.9 \text{ oz eq}$$

0.9 oz eq rounds down to **0.75 oz eq grain**

**B. To determine oz eq by grams of creditable grain:**

$$17 \text{ grams per slice} \div 16 \text{ gram standard} = 1.06$$

1.06 rounds down to **1 oz eq**

Notice the two methods result in different credit amounts. Using the grams of creditable grain method, one slice of our example bread meets the criteria for a minimum 1 oz eq of grain daily. To document oz eq by the amount of creditable grain in a product, you must keep the standardized recipe or a PFS on file.

### Calculation Example for Pasta

Whole-grain pasta is the second crediting example. Three different methods can be used to calculate an oz eq of pasta:

- A. Cooked volume based on Exhibit A
- B. Dry weight
- C. Grams of creditable grain per serving.



Standards for calculations

Pasta is in Group H of Exhibit A; ½ cup cooked pasta provides 1 oz eq

The standard for dry weight is 28 grams per oz eq

Example pasta

- Contains whole-wheat flour, enriched flour, and no non-creditable grains
- Cooks to ½ cup volume per 32 grams dry weight portion, according to the label
- Contains 29 grams of creditable grain per 32 gram portion, according to the manufacturer PFS.

Let's try the three calculation methods for determining creditable oz eq:

**A. To determine oz eq by product volume:**

$$\frac{1}{2} \text{ cup cooked portion} \div \frac{1}{2} \text{ cup standard} = \mathbf{1 \text{ oz eq}}$$

**B. To determine oz eq by dry weight of product:**

$$32 \text{ grams dry weight portion} \div 28 \text{ gram standard} = 1.14$$

1.14 rounds down to **1 oz eq**

**C. To determine oz eq by grams of creditable grain:**

$$29 \text{ grams per portion} \div 28 \text{ gram standard} = 1.03 \text{ oz}$$

1.03 oz rounds down to **1 oz eq**

In this example, the three calculation methods result in the same credit amounts. Choose the method that works best for your program.

### **Keep the Whole Grain Resource at Your Fingertips**

To help you master the calculations for whole grain-rich foods, the Whole Grain Resource samples include:

- Ingredient statements of grain products
- Child Nutrition (CN) label
- Standardized Recipe
- USDA Foods Product Information Sheet
- Sample PFS based on both Exhibit A (weight and volume) and grams of creditable grains.

The Whole Grain Resource is available at <https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-breakfast-programs>. Keep this resource handy to use when:

- Crediting whole grain-rich foods
- Making sure that 80 percent of the grain foods on the weekly breakfast and lunch menus meet the whole grain-rich criteria.

You can include grain-based desserts at lunch, but not to exceed 2 oz eq total per week. Exhibit A denotes specific grain products that credit as grain-based desserts. A grain-based dessert may be whole grain-rich or made with enriched grains. Grain-based desserts count toward the weekly dietary specifications. Exhibit A denotes specific grain products that credit as grains for breakfast; some of these same products credit as grain-based desserts at lunch. For example, graham crackers credit as grains at breakfast, but are considered a grain-based dessert at lunch. Refer to Exhibit A items marked with footnotes 3, 4, and 5 for details.

**“Please note: grain-based desserts are not creditable for preschoolers.”**

At breakfast, you can choose to credit M/MA toward some of the weekly required grains, after providing 1 oz eq grains daily. The meal patterns section of this chapter covers more information on M/MA crediting at breakfast.

Often, menu items will be a combination of grains and M/MA. Let’s move on to the final meal component, M/MA.



## Grains

- (1) **Determine that credited grains are whole grain-rich or enriched.**
- (2) **Meet daily minimums for each grade group and meal.**
- (3) **Meet weekly minimums for each grade group and meal.**
- (4) **The smallest creditable amount for the grains component is ¼ oz eq.**
- (5) **Limit grain-based desserts to 2 oz eq or less weekly for all grade groups (lunch).**

## Chicken Stir-Fry Bowl

### Ingredient Statement:

Chicken, brown rice, broccoli, red peppers, carrots, onions, water, olive oil, soy sauce, spices.

CN

XXXXXX

CN Each 4.5 oz. Chicken Stir-Fry Bowl provides 1.5 oz equivalent meat, **1.0 oz equivalent grains**, ¼ cup dark green vegetable, ¼ cup red/orange vegetable, and ⅛ cup other vegetable for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA XX/XX). CN

CN

**Net Wt.:** 18 pounds

Chicken Wok Company  
1234 Kluck Street • Poultry, PA 1235





Product Formulation Statement for Documenting Grains in Child Nutrition Programs

(Crediting Standards Based on Grams of Creditable Grains (ounce equivalent))

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative.

Product Name: \_\_\_\_\_ Code No.: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Serving Size: \_\_\_\_\_ (raw dough weight may be used to calculate creditable grains)

I. Does the product meet the whole grain-rich criteria? Yes \_\_\_\_\_ No \_\_\_\_\_

II. Does the product contain non-creditable grains? Yes \_\_\_\_\_ No \_\_\_\_\_ How many grams? \_\_\_\_\_ (Products with more than 0.24 ounce equivalent (oz eq) or 3.99 grams (g) for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.)

III. Use Exhibit A: Grain Requirements for Child Nutrition Programs in the Food Buying Guide for Child Nutrition Programs (FBG) to determine if the product fits into Groups A-G (baked goods), Group H (cereal grains) or Group I (RTE breakfast cereals). (Different methodologies are applied to calculate the grains contribution based on creditable grains. Groups A-G use the standard of 16g creditable grains per oz eq; Groups H and I use the standard of 28g creditable grains per oz eq or volume.)

Indicate which Exhibit A Group (A-I) the product belongs to: \_\_\_\_\_

Table with 4 columns: DESCRIPTION OF CREDITABLE GRAIN INGREDIENT\*, GRAMS OF CREDITABLE GRAINS INGREDIENT PER PORTION¹ (A), GRAM STANDARD OF CREDITABLE GRAINS PER OZ EQ (16g or 28g)² (B), CREDITABLE AMOUNT (A ÷ B). Includes a Total row and a Total Creditable Amount³ row.

\* Creditable grains vary by Program. See the FBG for specific Program requirements.
¹ (Serving size) X (% of creditable grains in formula); serving sizes other than grams must be converted to grams.
² Standard grams of creditable grains from the corresponding Group in Exhibit A.
³ Total Creditable Amount must be rounded down to the nearest quarter (0.25) oz eq. Do not round up.

Total weight (per portion) of product as purchased \_\_\_\_\_

Total contribution of product (per portion) \_\_\_\_\_ oz eq

I certify that the above information is true and correct and that a \_\_\_\_\_ ounce portion of this product (ready for serving) provides \_\_\_\_\_ oz eq grains. I further certify that non-creditable grains are not above 0.24 oz eq per portion. Products with more than 0.24 oz eq or 3.99g for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_

Phone Number \_\_\_\_\_

## EXAMPLE

Product Formulation Statement for Documenting Grains  
in Child Nutrition Programs

(Crediting Standards Based on Grams of Creditable Grains (ounce equivalent))

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative. Program operators have the option to choose the crediting method that fits their specific menu planning needs.

Product Name: Wheat Smile Pancakes Code No.: 14005Manufacturer: ABC Bread Company Serving Size: 2 pancakes – 50g (1.75 oz.)

(raw dough weight may be used to calculate creditable grains)

I. Does the product meet the whole grain-rich criteria? Yes  No II. Does the product contain non-creditable grains? Yes  No  How many grams? \_\_\_\_\_

(Products with more than 0.24 ounce equivalent (oz eq) or 3.99 grams (g) for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.)

III. Use Exhibit A: Grain Requirements for Child Nutrition Programs in the *Food Buying Guide for Child Nutrition Programs (FBG)* to determine if the product fits into Groups A-G (baked goods), Group H (cereal grains) or Group I (RTE breakfast cereals). (Different methodologies are applied to calculate the grains contribution based on creditable grains. Groups A-G use the standard of 16g creditable grains per oz eq; Groups H and I use the standard of 28g creditable grains per oz eq or volume.

Indicate which Exhibit A Group (A-I) the product belongs to: C

DESCRIPTION OF CREDITABLE GRAIN INGREDIENT*	GRAMS OF CREDITABLE GRAINS INGREDIENT PER PORTION <sup>1</sup>	GRAM STANDARD OF CREDITABLE GRAINS PER OZ EQ (16g or 28g) <sup>2</sup>	CREDITABLE AMOUNT
	A	B	A ÷ B
Whole wheat flour (30%)	15	16	0.9375
Enriched flour (22%)	11	16	0.6875
		<b>Total</b>	<b>1.625</b>
		<b>Total Creditable Amount<sup>3</sup></b>	<b>1.50</b>

\* Creditable grains vary by Program. See the FBG for specific Program requirements.

<sup>1</sup> (Serving size) X (% of creditable grains in formula); serving sizes other than grams must be converted to grams.<sup>2</sup> Standard grams of creditable grains from the corresponding Group in Exhibit A.<sup>3</sup> Total Creditable Amount must be rounded **down** to the nearest quarter (0.25) oz eq. Do **not** round up.Total weight (per portion) of product as purchased 50g (1.75 oz eq)Total contribution of product (per portion) 1.50 oz eq

I certify that the above information is true and correct and that a 1.75 ounce portion of this product (ready for serving) provides 1.50 oz eq grains. I further certify that non-creditable grains are **not** above 0.24 oz eq per portion. Products with more than 0.24 oz eq or 3.99g for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.

Signature

Title

Printed Name

Date

Phone Number

Product Formulation Statement (PFS) with ounce equivalent grains highlighted



Product Formulation Statement for Documenting Grains in Child Nutrition Programs

(Crediting Standards Based on Exhibit A Weights per Ounce Equivalent)

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative.

Product Name: \_\_\_\_\_ Code No.: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Serving Size: \_\_\_\_\_

I. Does the product meet the whole grain-rich criteria? Yes \_\_\_\_\_ No \_\_\_\_\_

II. Does the product contain non-creditable grains? Yes \_\_\_\_\_ No \_\_\_\_\_ How many grams? \_\_\_\_\_ (Products with more than 0.24 ounce equivalent (oz eq) or 3.99 grams (g) for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.)

III. Use Exhibit A: Grain Requirements for Child Nutrition Programs in the Food Buying Guide for Child Nutrition Programs (FBG) to determine if the product fits into Groups A-G (baked goods), Group H (cereal grains) or Group I (RTE breakfast cereals). (Different methodologies are applied to calculate the grains contribution based on creditable grains. Groups A-G use the standard of 16g creditable grains per oz eq; Groups H and I use the standard of 28g creditable grains per oz eq or volume.

Indicate which Exhibit A Group (A-I) the product belongs: \_\_\_\_\_

Table with 4 columns: DESCRIPTION OF PRODUCT PER EXHIBIT A, PORTION SIZE OF PRODUCT AS PURCHASED (A), WEIGHT OF ONE OZ EQ AS LISTED IN EXHIBIT A (B), CREDITABLE AMOUNT (A ÷ B). Includes a Total Creditable Amount row.

1 Total Creditable Amount must be rounded down to the nearest quarter (0.25) oz eq. Do not round up.

Total weight (per portion) of product as purchased \_\_\_\_\_

Total contribution of product (per portion) \_\_\_\_\_ oz eq

I further certify that the above information is true and correct and that a \_\_\_\_\_ ounce portion of this product (ready for serving) provides \_\_\_\_\_ oz eq grains. I further certify that non-creditable grains are not above 0.24 oz eq per portion. Products with more than 0.24 oz eq or 3.99g for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_

Phone Number \_\_\_\_\_

# EXAMPLE

## Product Formulation Statement for Documenting Grains in Child Nutrition Programs

(Crediting Standards Based on Exhibit A Weights per Ounce Equivalent)

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative. Program operators have the option to choose the crediting method that fits their specific menu planning needs.

Product Name: Wheat Smile Pancakes Code No.: 14005

Manufacturer: ABC Bread Company Serving Size: 2 pancakes – 50g (1.75 oz.)

I. Does the product meet the whole grain-rich criteria? Yes  No

II. Does the product contain non-creditable grains? Yes  No  How many grams?   
 (Products with more than 0.24 ounce equivalent (oz eq) or 3.99 grams (g) for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.)

III. Use Exhibit A: Grain Requirements for Child Nutrition Programs in the *Food Buying Guide for Child Nutrition Programs (FBG)* to determine if the product fits into Groups A-G (baked goods), Group H (cereal grains) or Group I (RTE breakfast cereals). (Different methodologies are applied to calculate the grains contribution based on creditable grains. Groups A-G use the standard of 16g creditable grains per oz eq; Groups H and I use the standard of 28g creditable grains per oz eq or volume.

Indicate which Exhibit A Group (A-I) the product belongs: C

DESCRIPTION OF PRODUCT PER EXHIBIT A	PORTION SIZE OF PRODUCT AS PURCHASED A	WEIGHT OF ONE OZ EQ AS LISTED IN EXHIBIT A B	CREDITABLE AMOUNT A ÷ B
Pancakes	50 grams	34 grams	1.47
<b>Total Creditable Amount<sup>1</sup></b>			<b>1.25</b>

<sup>1</sup> Total Creditable Amount must be rounded **down** to the nearest quarter (0.25) oz eq. Do **not** round up.

Total weight (per portion) of product as purchased 50g

Total contribution of product (per portion) 1.25 oz eq

I further certify that the above information is true and correct and that a 1.75 ounce portion of this product (ready for serving) provides 1.25 oz eq grains. I further certify that non-creditable grains **are not** above 0.24 oz eq per portion. Products with more than 0.24 oz eq or 3.99g for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_

Phone Number \_\_\_\_\_

**Meats/Meat Alternates (M/MA)**

The M/MA component includes animal and plant-based foods that are good sources of protein. Most foods in this group also provide iron, zinc, magnesium, and B-vitamins. Lean choices and low-fat cooking methods are two tips from the MyPlate messages you can apply to school meal choices for M/MA. Foods in the M/MA component include:

- Fresh and frozen meats (lean beef, pork, poultry, fish, shellfish, etc.)
- Processed meats (beef crumbles, chicken tenders/nuggets, deli meats, fish patties/sticks, dried meat products, surimi seafood, etc.)
- Canned meats (chicken, tuna, salmon, etc.)
- Meat alternates (eggs, cheese, yogurt, nuts/seeds and their butters, beans and peas (legumes), tofu, tempeh, etc.).

For many M/MA choices, cooking losses occur when the raw product is cooked for service. Use the M/MA section of the FBG to find the amount of uncooked product required to yield the cooked amounts needed for food production. For M/MA, the FBG “edible portions” are the common forms in meals, such as lean meat without bone or a chicken drumstick with skin and bone. Other M/MA are processed foods made with meat and other ingredients, such as chicken nuggets.

M/MA are measured by weight and use oz eq as the unit for NSLP/SBP. Use the FBG to determine the amount of raw meat needed for an oz eq; it may be more than an ounce by cooked weight. The FBG helps determine the amount of M/MA to

purchase for meal needs. Manufacturer-specific sources of oz eq information are CN labels and PFS. Some foods, such as nut butters, are more easily measured by volume. With these foods, oz eq are converted into volume measures for ease in accurate portioning.

The smallest amount that credits toward M/MA is 0.25 oz eq. As with other components, *always round down* when calculating oz eq of M/MA.

M/MA have both daily and weekly required minimum serving amounts for lunch. The daily required minimum serving amounts vary by grade group. Provide additional M/MA beyond the daily requirement across the menu for K–5 and 6–8 grade groups to meet the weekly minimums. The daily requirement for grades 9–12 meets the weekly requirement for M/MA. Chart 6 summarizes daily and weekly M/MA required minimum serving amounts.

M/MA is not a required component at breakfast, but may credit toward part of the weekly grains component for breakfast. If you choose to credit M/MA toward part of the grains component for breakfast, you will need to follow special instructions. More information on M/MA crediting at breakfast is covered in the meal patterns section of this chapter and chapter 3.

Nuts and seeds can provide up to half of the M/MA requirement at a meal, but not the full required serving amount. However, *nut and seed butters* can provide the full serving amount of M/MA in a meal.

**CHART 6**

**Meats/Meat Alternates Daily/Weekly Required Serving Amounts**

MEAL	GRADE GROUP	DAILY MINIMUM	WEEKLY MINIMUM
Lunch	K–5	1 oz eq	8 oz eq
	6–8	1 oz eq	9 oz eq
	9–12	2 oz eq	10 oz eq

Give beans and peas (legumes) special attention for crediting. They can credit toward either the beans and peas (legumes) subgroup of the vegetables component or M/MA component. A menu item with beans and peas (legumes) credits toward only one meal component. For example, you could credit chili made with black beans and kidney beans as either legume vegetable subgroup or M/MA, but not both. You may credit two distinct servings of beans and peas (legumes) in one meal, if they are contained in two separate dishes. For example, legumes may be part of a salad (vegetables component) and as part of chili/bean soup (M/MA component). As the menu planner, you must determine in advance how beans and peas (legumes) will credit in a meal. Train your staff on how each food on the menu contributes to the reimbursable meal; it is especially important when determining how beans and peas (legumes) contribute to the reimbursable meal.



### **Meats/Meat Alternates**

- (1) Meet daily minimums for each grade group at lunch.**
  - (2) Meet weekly minimums for each grade group at lunch.**
  - (3) The smallest creditable amount for the M/MA is  $\frac{1}{4}$  oz eq.**
  - (4) Credit nuts/seeds for up to half the M/MA requirement; nut/seed butters can credit for the full M/MA serving amount.**
  - (5) Credit beans and peas (legumes) toward M/MA or the beans and peas (legumes) vegetable subgroup, but not both for the same menu item.**
  - (6) Follow the substitution instructions if crediting M/MA toward the required weekly grains component at breakfast.**
-

## Menu Chat

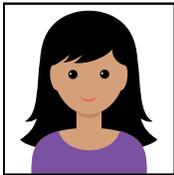


## Hi everyone!



Lin

I am trying to decide the best approach for identifying how foods such as kidney beans, lentils, and yellow split peas contribute to reimbursable meals. I know we need to meet the ½ cup legumes subgroup each week, so some must be vegetables. I am not sure if I want to also credit some as a meat/meat alternate. What approaches do you use? Thanks!



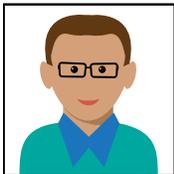
Elena

The products we use are beans and lentils that we cook from the dry form for service. We credit them toward the legumes vegetable subgroup in all of our menus. This approach helps my staff clearly understand how to recognize a reimbursable meal. Our program takes this single approach to help make it easier to recognize each component in the meal pattern. It works for my staff and students.



Megan

We do this a little differently in our schools. We offer black beans, garbanzo beans, or kidney beans daily on the self-serve salad bar and we credit them as the legumes vegetable subgroup. At serving lines for entrees and hot items, we always credit menu items with beans and peas (legumes) as a meat/meat alternate. Offering legumes daily on our salad bar gives students who want vegetarian meals an option and also meets the weekly vegetable subgroup requirements for all students. I want to keep it easy for my staff to understand how each food item contributes toward reimbursable meals. Including legumes in main dish items has budget advantages and seems to increase intake because those items are served to most of our students.



Dylan

Here is something to remember, fresh (immature) soybeans also known as edamame is the exception to the rule of dry, mature beans and peas crediting toward either the legumes vegetable subgroup or meat/meat alternate component. Our high school students enjoy edamame, so we include it on our vegetables self-serve bar and credit it toward the weekly legumes vegetable subgroup requirements. If you are serving other immature beans such as fresh or frozen lima beans, those are in the starchy vegetable subgroup. Remember that green beans and yellow wax beans are in the other vegetable subgroup and green peas are starchy. I have a photo chart with pictures and samples of our food labels as a reference for our staff so that they recognize the foods we usually serve and the vegetable subgroup each belongs to for foods with similar sounding names. It has been useful for when we needed a substitution, they can see what other options are in the legumes vegetable subgroup.



Lin

**THANK YOU**

I appreciate your help! I definitely need to choose a method that my staff will clearly understand. Thanks!

You may be wondering how condiments and other foods that do not credit fit into school meals. Let's finish our review of the meal components with a look at non-creditable foods.

### **Foods That Do Not Credit Toward Reimbursable Meals**

Some foods add enjoyment to a meal but do not belong to a meal component. For example, the dressing on a vibrantly colored salad of local produce does not credit toward a meal component. Examples of non-creditable food items include:

- Jam, jelly, syrup, and spreads
- Salad dressings
- Condiments: mustard, mayonnaise, ketchup, and BBQ sauce
- Gelatin and pudding
- Portions of meal components served in amounts too small to credit, such as croutons, pickles, or sunflower seeds on salad bars.

To teach healthy food habits, students need to know what foods they are eating. Therefore, except for pasta products made from vegetable flour that credit toward the vegetables component, individual food items need to be recognizable to credit toward a meal component. A recognizable food is visible in the finished menu item. For example, you may have a recipe for brownies that includes puréed black beans. This is a great strategy to reduce fat in the recipe, and one your program can use. However, brownie recipes do not usually include black beans and, furthermore, pieces of the black beans are not visible to students. Therefore, you cannot credit the puréed beans toward the legumes vegetable subgroup or M/MA. The nutrient content of the recipe may still be a perfect fit for your overall menu goals. However, if the brownie has enough whole grain-rich flour or enriched grains to credit as least 0.25 oz eq grains, it can credit toward the grains component. Be sure to count these grains toward the weekly 2 oz eq limit of grain-based desserts. Please keep in mind, if your menu contains tofu or soy yogurt, be sure they appear in a recognizable form, as some forms or menu uses of these foods are not recognizable.

Generally speaking, you may include non-creditable foods in small portions. Limited amounts help your menus stay within dietary specifications for calories, saturated fat, and sodium. While these extra foods do not credit toward meal components, they do count in dietary specifications. If your menus exceed any of the dietary specifications for calories, saturated fat, or sodium, evaluate how these non-creditable foods contribute to the excess. Also, consider the cost of these foods in the budget.

### **Component-Specific Food Safety**

Chapter 1 introduced the importance of creating a culture of food safety. Be sure to follow food safety practices for each meal component. This section addresses specific food safety practices for each of the five meal components. For training resources, check the Institute of Child Nutrition's (ICN) Food Safety in Schools (<https://theicn.org/icn-resources-a-z/food-safety-in-schools>).

#### **Fluid Milk**

Keep milk at 41 °F or less. Check and document the temperatures of milk during receiving, storing, and serving. If the milk temperature is above 41 °F when delivered, refuse the shipment and send it back to the vendor. After receiving your milk, move the shipment to your refrigerator quickly so it remains at the proper temperature.

#### **Fruits**

Wash fresh fruits under cool, running water. Use a brush on the skins of fruits with thick and firm skins (cantaloupe, honeydew, etc.) to remove dirt and pathogens. Cover, label, and date cut fruit for cold holding at 41 °F or less. Handle and serve washed, ready-to-eat fruits with utensils or washed, gloved hands. For canned fruits, wipe the flat surfaces of cans to remove excess dirt and dust prior to storage and before opening.



### Vegetables

Wash fresh vegetables under cool, running water. Use a brush on the skins of root vegetables (potatoes, carrots, etc.) to remove dirt and pathogens. Do not rewash prewashed, ready-to-serve bagged salad greens. Cover, label, and date cut vegetables (e.g., sliced tomatoes, chopped lettuce) for cold holding at 41 °F or less. Handle and serve raw, ready-to-eat vegetables with utensils or washed, gloved hands. For canned vegetables, wipe the flat surfaces of cans to remove excess dirt and dust prior to storage and before opening. Properly cool and reheat beans and peas (legumes) cooked from the dry form. Many USDA recipes include these cooling and reheating instructions.

### Grains

Handle rolls and other ready-to-eat grains with utensils, waxed deli paper, or washed, gloved hands. Follow proper procedures and Critical Control Points (CCPs) to prepare, hold, and cool rice for a combination dish such as fried rice. Cover, label, and date leftover cooked grains (e.g., rice, pasta) for cold holding at 41 °F or less after the grains are properly cooled. Store whole grains and flours in sealed containers in cool, dry places to preserve quality and maintain freshness.

### Meats/Meat Alternates

Keep raw meats (beef, pork, poultry, fish, etc.) and drippings completely separate from other foods. Prevent cross-contamination by using separate cutting boards for raw and cooked meats. Store fresh eggs and raw meat products on the lowest refrigerator shelf, separated from each other and from other foods. Cook meats to a safe internal temperature per standardized recipe CCPs. Clean and sanitize all preparation surfaces and equipment between food products, especially after handling raw meats. Follow 7-day discard dates for open packages of cold cuts.

### Meal Component Summary

This section covered key aspects of each meal component, including:

- Daily and weekly required minimum serving amounts
- Component-specific crediting
- Non-creditable foods
- Food safety considerations.

Each meal component provides different nutrients. Now it is time to see how each component plays a role in meal patterns.



**School District:**  
School District of  
New Richmond

**Located:**  
New Richmond,  
Wisconsin

**Enrollment:**  
3,000

**Website:**  
[https://www.  
newrichmond.k12.  
wi.us/](https://www.newrichmond.k12.wi.us/)

## Vegetable of the Month Program

New Richmond School District offers a Veggie of the Month program at its K–5 schools. High school agriculture students offer vegetable samples to students during lunch service, ask trivia questions about the vegetable, and give nonfood prizes. Students also receive an “I tried it” sticker. Recipes feature a wide variety of vegetables including roasted Brussels sprouts, roasted tomatoes, cauliflower gratin, roasted asparagus, baked sweet potatoes, corn black bean salsa, and roasted beets. The school district has also held color-themed fruit and vegetable promotions for K–5 schools. For example, “Eat Red Day” on Valentine’s Day showcased blood oranges, tomatoes, and beet salad, while “Eat Green Day” featured Brussels sprouts, romaine salad, and green grapes.

A monthly newsletter posted on the school nutrition web page at the district website features the recipe served to the students. Each month, the district posts new pictures of students trying the vegetable samples.



New Richmond School District highlights a new fruit in a pomegranate apple salad.



**Check Team Nutrition resources for stickers and other promotional supplies.**

## Food Safety for Handling Produce

Fruits and vegetables play a prominent role in school meals by adding color and visual appeal. Because fresh fruits and vegetables have special food safety considerations, always emphasize safe food handling with these products. This is part of creating a culture of food safety in your program.

Fresh produce is perishable and may quickly spoil if not properly stored. Additionally, fresh fruits and vegetables are often served raw, rather than cooked, meaning they need to be carefully washed and handled before service. Your standard operating procedures (SOPs) should detail proper receiving, storing, cleaning, preparing, cold holding, and serving practices for staff.

The points below summarize key food safety actions for fresh produce. The USDA supports the Institute of Child Nutrition (ICN) in developing a number of resources to help your staff get the job done. The images of sample resources show the depth of information available. All of the produce safety resources mentioned below can be found at <https://theicn.org/icn-resources-a-z/produce-safety>.

**Receiving:** Train your staff to check produce deliveries for the proper temperature. Staff should also check the quality of fresh produce and recognize whether products meet your specifications. Teach your staff to evaluate produce with the Product Information Sheets. Empower staff to reject poor quality produce.

**Storing:** How you store fresh produce can affect the safety as well as the quality and shelf life. USDA and ICN have produced the Produce Safety video series providing tips on proper produce handling, including proper placement in the cooler. You can display the walk-in cooler organization fact sheet, “Storing Fresh Produce,” as a handy reminder for your staff.

**Washing:** Need a SOP on how to wash produce? The ICN sample SOP “Washing Fruits and Vegetables” is based on the Hazard Analysis and Critical Control Point (HACCP) principles. Every school food safety program needs produce washing procedures and other SOPs.

**Handling Precut Foods:** Precut produce (e.g., commercially diced tomatoes, chopped lettuce, and sliced fruits) needs vigilant attention to temperature. Ensure these foods are stored so they remain at or below 41 °F. Track the time this produce is out of refrigeration.



### Watermelon Information Sheet

**Purchasing Specifications**  
Specifications should state grade, type, size, and quantity. Watermelons should be firm and symmetrical. The underside of the watermelon should have a creamy yellow spot from where it sat on the ground to ripen. No more than 12% should have defects that make watermelons unusable, and no more than 2% should be affected by decay.

Measure	Weight in Pounds
Small	Up to 12
Medium	12 to 20
Large	Over 20

**U.S. Grades**

- U.S. Fancy - Very few defects are permitted.
- U.S. No. 1\* - Greater number of defects permitted compared to the U.S. Fancy Grade.
- U.S. No. 2 - Greater areas of defects are allowed compared to higher grades; off-shape is permitted.

- Watermelons can be round or oblong. Round watermelon is more common commercially.
- The most common varieties of watermelons are Jubilee and Crimson Sweet.
- Seedless watermelons have fewer than 10 mature (brown to black) seeds visible when the watermelon is cut into 4 equal pieces.

\*U.S. No. 1 consists of watermelons that are mature, have similar varietal characteristics, are fairly well formed, and are not overripe. Watermelons should be free from sunken lesions, decay, sunscald, and damage by other means.

**Domestic Harvest**  
2, 3, 4: August  
5, 6: July - August  
7, 8: June - July  
9, 10: April - July

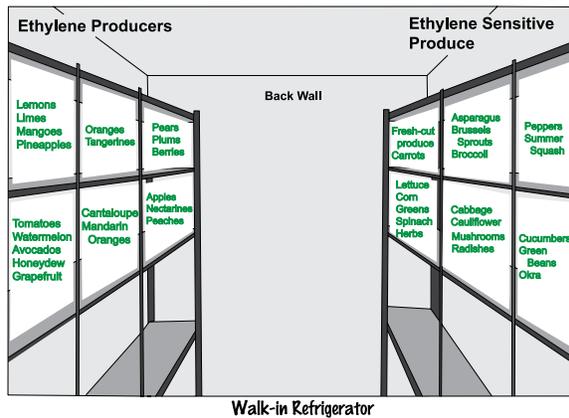
\*California available year around.

Domestic harvest begins in April and will continue through October in a few of the southern states, with the greatest crop yield in the summer months. Check with your county or state Cooperative Extension Office for specific information regarding watermelon production in your area.

## Storing Fresh Produce

Refrigerators should maintain a temperature of 41 °F, or less, but temperatures inside a refrigerator can range from colder (32 °F) to warmer (41 °F), depending on the location. Colder temperatures are found in the back and warmer temperatures in the front, near the door. Some kinds of produce should be stored at warmer temperatures near the door for best quality. Location of fruits and vegetables is important because fruits, in general, produce ethylene gas, which fosters natural ripening, but it also can cause most vegetables and a few non-ethylene producing fruits to deteriorate more quickly and develop undesirable characteristics. Ideally, ethylene-producing fruits should be stored in the refrigerator as far from ethylene-sensitive fruits and vegetables as possible.

These items should not be refrigerated. Place in dry storage 60 °F and 70 °F.  
Bananas Sweet Potatoes Potatoes Dry Onions



**Preparing onsite:** Produce prepared onsite requires careful control of time and temperature; cold hold prepared produce at 41 °F or less. Cover, label, and date foods for proper cold storage. Utensils, waxed deli tissues, and well-washed, gloved hands are essential tools for handling produce that is consumed raw.

**Serving:** Use ICN’s Food Safety Fact Sheet Series to train staff onsite from preparation to service. Each sheet is product specific and concise.

Many schools serve fresh produce on salad bars. Salad bars have special requirements to keep food safe. Sneeze guards, utensils, and adult supervision are all necessary tools.

Students enjoy the variety and choices of a salad bar and are more likely to eat foods they select themselves. To ensure food safety standards are met, a staffed salad bar for K–5 students is recommended. Students direct the worker to portion out their choices protected by a solid sneeze guard. The adult hands the plated produce to the child. Self-serve bars monitored by trained school nutrition staff and equipped with food-safe cues are appropriate for older students in middle and high school.

Produce Safety University, a 1-week intensive training course, is available for school nutrition program staff to identify and manage food safety risks associated with fresh produce. You can learn more about Produce Safety University at <https://www.fns.usda.gov/ofs/produce-safety-university>.



## Cherry/Grape Tomato Information Sheet

### Purchasing Specifications

Specifications should state grade, type, size, and quantity. Select an appropriate grade for the intended use. They should have bright to dark red color, natural shine, firm, smooth-skinned and be at least pink in color. Yellow/orange fleshed tomatoes may be specified and should have a solid yellow characteristic color throughout the tomato. Cherry and grape tomatoes should be received with more than 90% of the tomatoes showing specified color. No more than 15% should have defects that make the tomatoes unusable, and no more than 5% should be affected by decay.

### U.S. Grades

- U.S. No. 1\* - Most common grade used to ship cherry and grape tomatoes.
- U.S. Combination - at least 60% of the tomatoes are U.S. No. 1 quality.
- U.S. No. 2 - Severity of defects are more than in a U.S. No. 1.

\*U.S. No. 1 consists of tomatoes that have similar varietal characteristics. U.S. No. 1 tomatoes are mature, not overripe or soft, clean, well developed, fairly well formed, fairly smooth, and free from decay, freezing, sunscald, or damage by any other cause.

### Domestic Harvest

- 2, 3, 4: July - August
- 5, 6: June - July
- 7, 8: April - May
- 9, 10: December - April



Tomatoes are grown locally year around either outside or in greenhouses in most of the United States. Greenhouse/hothouse and hydroponic tomatoes are growing steadily in popularity and available nearly year-round. The peak commercial production states are Florida and California. Between these two states there is virtually no gap in domestic production of tomatoes. Check with your county or state Cooperative Extension Office for specific information regarding tomato production in your area.



**MEAL PATTERNS**

As mentioned in chapter 1, lunch and breakfast meal patterns exist for the three established grade groups: K–5, 6–8, and 9–12. The meal patterns show the minimum amount of each meal component needed to meet the requirements for a particular grade group. At lunch, the K–5 and 6–8 meal patterns overlap. This allows you to create a single K–8 menu at lunch that meets the requirements for both grade groups. At breakfast, you can plan a K–8 or K–12 menu because the meal patterns overlap. Again, the menus must meet all grade group requirements.

Let’s review the meal patterns for lunch and breakfast. Later in this chapter, you will learn how these meal patterns are designed to help meet the dietary specifications.

**Meal Pattern for Lunch**

The lunch meal pattern requires all five meal components for a reimbursable meal. Chart 7 summarizes the required minimum serving amounts of each meal component per each grade group, including the optional K–8 overlap. The unit of measure, cups or oz eq, is noted, with daily and weekly totals shown.

Key aspects of the lunch meal patterns to remember:

- Plan the daily required minimum serving amounts, and your menu will also meet the weekly minimums for:
  - All components, grades 9–12
  - Fluid milk, fruits, and vegetables components, grades K–5 and 6–8.
- Include additional grains and M/MA across the menu week to meet weekly minimums for all grades K–8.
- Meet the five vegetable subgroup requirements for all grade groups across the menu week.

**Meal Pattern for Breakfast**

The breakfast meal pattern requires these three meal components: fluid milk, fruits, and grains. Chart 8 summarizes the required minimum serving amounts of each required meal component per each grade group, including the optional K–8 and K–12 overlaps. The chart shows unit of measure (cups or oz eq), daily minimums, and weekly minimums.

**CHART 7**

**Lunch Meal Pattern (Minimum Required Serving Amounts)**

GRADE GROUP	FLUID MILK (CUPS)		FRUITS (CUPS)		VEGETABLES (CUPS)		GRAINS (oz eq)		M/MA (oz eq)	
	Daily	Weekly	Daily	Weekly	Daily	Weekly	Daily	Weekly	Daily	Weekly
<b>K–5</b>	1	5	½	2½	¾	3 ¾	1	8	1	8
<b>6–8</b>	1	5	½	2½	¾	3 ¾	1	8	1	9
<b>K–8 Option</b>	1	5	½	2½	¾	3 ¾	1	8	1	9
<b>9–12</b>	1	5	1	5	1	5	2	10	2	10

You have flexibility in planning breakfast to include the other two component groups: vegetables and M/MA. If you include vegetables and M/MA in breakfast menus, you can choose either of these options:

- Option 1: Follow the substitution rules and credit these components toward requirements for reimbursement.
  - Vegetables may credit for some or all of the required fruits component when these guidelines are followed:
    - Equal volume measures of vegetables can be substituted for equal volume measures of fruits.
    - Vegetable juices must be pasteurized 100% juice and count toward the limit on juice offered weekly.
  - M/MA may credit toward the required weekly total grains, *after meeting the daily grains requirement*; 1 oz eq of M/MA equals 1 oz eq of grains.

- Option 2: Include vegetables and/or M/MA as extra foods, not part of the reimbursable meal.

No matter which approach you take for planning breakfast menus, the foods count toward the dietary specifications. You must clearly communicate to your staff about how to recognize a reimbursable breakfast.

## CHART 8

### Breakfast Meal Pattern (Minimum Required Serving Amounts)

GRADE GROUP	FLUID MILK (CUPS)		FRUITS* (CUPS)		GRAINS** (oz eq)	
	Daily	Weekly	Daily	Weekly	Daily	Weekly
K-5	1	5	1	5	1	7
6-8	1	5	1	5	1	8
K-8 Option	1	5	1	5	1	8
9-12	1	5	1	5	1	9
K-12 Option	1	5	1	5	1	9

\* Vegetables may substitute for fruits at breakfast.

\*\* After offering 1 oz eq daily grains at breakfast, 1 oz eq M/MA may be served to credit toward 1 oz eq of the weekly grains requirement.



## Offer Versus Serve

As the menu planner, you decide on daily meal items that meet at least the required minimum serving amounts of each meal component in delicious, appealing ways. You must clearly identify how food items on the menu contribute to the reimbursable meal. This identification is guided by your district's decision on meal service, either Offer Versus Serve (OVS) or Served.

With a Served breakfast or lunch, the student may not decline a food item nor select less than the required minimum serving amount. The Served option is allowed for all grade groups at breakfast and for grades K–5 and 6–8 at lunch.

OVS allows the student to decline some food items or select smaller amounts at meal service. OVS is a way to allow student choice and decrease plate waste. OVS is required at lunch for students in grades 9–12 and encouraged for other grade groups. Breakfast OVS is optional for all grade groups.

Under OVS, students are offered the daily required minimum amounts of all meal components. OVS encourages the student to take the full meal with personal choice to decline items. Below are the basic steps of OVS for lunch and breakfast.

### Lunch:

The lunch meal pattern requires all five meal components: fluid milk, fruits, vegetables, grains, and M/MA. For a reimbursable meal, a student must select at least:

- ½ cup fruits and/or vegetables
- Two full minimum serving amounts of the other meal components offered.

Here is an important distinction for students in grades 9–12. Please note when both fruits and vegetables are two of the three items selected for the reimbursable meal, the student must have at least:

- ½ cup portion of one (for example, applesauce)
- 1 cup portion of the other (for example, steamed broccoli) plus
- One more full serving of a third meal component (for example, 2 oz eq whole-grain bread stick).

A meal selected at grades 9–12 with ½ cup portions of both the fruits and vegetables components (½ cup each applesauce and steamed broccoli), and one full serving of grains component (breadstick) would not be reimbursable. The guidelines for reimbursement require at least ½ cup fruits and/or vegetables for all meals; the requirement for full minimum servings of two other meal components applies to the fruits or vegetables component (1 cup minimum serving amount) when selected as one of the two additional items for a reimbursable meal. A student could take the two ½ cup portions of fruits and vegetables with two other full meal components (2 oz eq of grains and/or M/MA and/or 1 cup of milk) for reimbursement.

**Breakfast:**

The breakfast meal pattern requires three meal components: fluid milk, fruits, and grains. An OVS breakfast offers at least four items that credit toward required meal components.

For a reimbursable meal, a student must select at least three items, including:

- ½ cup of fruit (or vegetable if properly substituted and credited to fruits component requirement)
- Two full minimum serving amounts of the other meal components offered (including M/MA if credited toward weekly grains requirement).

A variety of service styles can provide students with reimbursable meals. Check the USDA's OVS manual (<https://www.fns.usda.gov/updated-offer-vs-serve-guidance-nslp-and-sbp-beginning-sy2015-16>) for guidance on OVS, especially for alternate methods, such as family-style, grab-and-go, or preplated meals. The manual explains specific meal examples your staff may encounter. Exceptions to the OVS requirements at lunch for grades 9–12 are noted. And, if you still have questions on implementing OVS, check with your State agency for additional help.

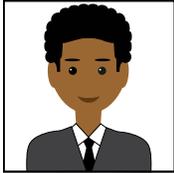
Your success with OVS depends on trained staff. The Institute of Child Nutrition (ICN) offers several OVS resources:

Meal Pattern Training Resources (<https://theicn.org/icn-ilearn/>).

## Menu Chat



## Hi colleagues!



Tyler

Could you share your thoughts on how the items below can fit into my menu at breakfast? I know there are options for flexibility and I am trying to figure out what is best for my district. For example, I know that meats/meat alternates can credit toward weekly grains as long as each breakfast already includes the minimum 1 ounce equivalent of grains. I also know that if we want to credit vegetables toward the fruits component, we need to follow the guidance. Here is the menu and thanks in advance for your help!

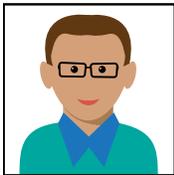
**Breakfast Burrito**

1 oz eq whole-wheat tortilla filled with  
 1 oz eq scrambled egg,  
 ¼ cup diced potatoes,  
 ¼ cup diced onions and peppers, served with  
 ¼ cup salsa  
 ½ cup 100% orange juice  
 ½ cup canned pears  
 1 cup fluid milk (choice of unflavored or flavored fat-free or 1%)



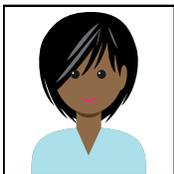
Megan

We take a simple approach for breakfast. Our decision is to not provide OVS at breakfast. For the menu above, we would serve students the portions listed of milk, fruits (orange juice and pears), and grains (tortilla) to meet the required meal components and serving amounts for a reimbursable breakfast. The eggs and vegetables would be extras on our menu. Because they are extras, students have a choice to take any or all of these foods in the portions offered. The calories and nutrients from the extras in our menu, like egg and vegetables, are averaged into our weekly totals. It works for us.



Dylan

We do a Served breakfast, too. However, we need to count as many components toward reimbursement as possible. Because the tortilla meets the daily grains requirement, I would credit the 1 oz eq egg, the meat alternate, toward the weekly grains requirement. We do not choose to credit any vegetables toward the fruits requirement at breakfast, so for my schools all of the vegetables would be considered extras. When we do have vegetables on the breakfast menu, I make sure to balance vegetables from several subgroups, just like you did in this menu with the onions, peppers, and salsa. I find that a 1-day menu exception is confusing for some of my staff, so we have decided not to credit any vegetables at breakfast toward fruits.



Sandra

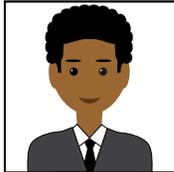
We do OVS at breakfast. To meet the four item requirement of OVS, I would credit the 1 oz eq egg – the meat alternate – toward the weekly grains and as an item for reimbursement. That means we assemble the breakfast from the line, so students have the option of declining the egg – part of following OVS. I list the vegetables as extras on the production record and optional for students. My staff is trained to recognize a reimbursable meal – the student must have at least ½ cup fruits, in this case orange juice or pears, and two other full components: tortilla, egg, or milk. Our younger students like this option and our older students usually select everything. Before you credit a meat/meat alternate toward weekly grains, make sure you have met your daily grains requirement.

## Menu Chat



Lin

The best option for us is OVS and making sure that most items offered are those that make a meal reimbursable. OVS and crediting every food we can are budget realities. For the menu you provided, we would credit the milk, fruits, and grains toward those requirements and credit the egg, a meat alternate, toward the weekly grains requirement. We also plan at least 2 cups per week of dark green, red/orange, legumes, and other vegetable subgroups at breakfast. I plan vegetables at breakfast every day in different ways and include the red/orange and other vegetable subgroups in ½ cup portions. We have a similar menu to the one you shared, and we offer the hot items from the serving line so students can tell us their choices. Often the reimbursable meal is the tortilla, egg, and vegetable mixture. We offer a full cup of fruit. We could go with ½ cup because we follow the substitution rules for crediting vegetables as fruits. But so many of our students like juice, we want to keep offering other fruit choices.



Tyler

**THANK YOU**

Thanks everyone! We have been thinking about starting OVS at breakfast. I see how that choice influences other decisions. You have given me some good options to think about.

## REIMBURSABLE MEALS – OFFER VERSUS SERVE OR SERVED

You plan your menu to meet the requirements for reimbursable meals. The definition of a reimbursable meal that each student selects depends on your program choice of Offer Versus Serve (OVS) or Served meals (see *Take a Closer Look* on page 70 for details). Research shows giving students options rather than requiring them to take all food items significantly reduces plate waste.

Your decisions for OVS or Served include choices about crediting vegetables and/or M/MA, or counting as extra foods. These choices affect what is a reimbursable breakfast meal. You need to clearly identify what are the components for reimbursable meals and what are extras. Be sure staff and students can recognize a reimbursable breakfast meal.



**For both lunch and breakfast meals, OVS requires a student select at least**

- ***½ cup fruits/vegetables***
- ***Two other full minimum serving amounts of the meal components offered.***

Information on how menu planning and production records incorporate OVS for both lunch and breakfast are topics of chapters 3 and 4. When an SFA uses OVS, one part of the Administrative Review includes meal observation and records review to assure it is implemented correctly. The last aspect of FBMP covered in this chapter is the dietary specifications.

## DIETARY SPECIFICATIONS FOR GRADE GROUPS

Chapter 1 highlighted the nutritional strengths of the FBMP system. School meals provide the key nutrients students need because of the meal pattern requirements. The beginning of this chapter notes that meals need to provide approximately one-third and one-fourth of the daily requirements for calories and key nutrients for lunch and breakfast, respectively. The Dietary Guidelines encourages healthy eating patterns at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease. In the FBMP system, balanced menus provide enough but not too much energy (calories), saturated fat, and sodium. *Trans* fat is reduced to as little as possible; only products labeled 0 grams (<0.5 grams) *trans* fat per serving are allowed in school meals.

The dietary specifications for school meals:

- Specify ranges of calories for meals for each grade group.
- Limit daily calories (averaged over a week) from saturated fat to less than 10 percent, and ensure all nutrition labels indicate 0 grams (<0.5 grams) *trans* fat per serving.
- Provide targets for sodium reduction.

Let's review each dietary specification and see how the meal patterns help meet these goals.

### Calorie Ranges

Students need calories to fuel growth, development, learning, and physical activity. However, many American children consume more calories than they need. Often, the calories they consume are not rich in nutrients. School meals are designed to provide abundant nutrients with sufficient calories.

Each grade group meal pattern has a calorie range. Chart 9 summarizes the calorie ranges, including optional grade overlaps.

The meal patterns and minimum serving amounts provide the structure for developing menus that are rich in nutrients for the calories provided.

### CHART 9

#### Calorie Ranges by Grade Group and Meal

GRADE GROUP	BREAKFAST CALORIE RANGE	LUNCH CALORIE RANGE
K-5	350-500	550-650
6-8	400-550	600-700
K-8 Option	400-500	600-650
9-12	450-600	750-850
K-12 Option	450-500	NA

The following strategies work together to create opportunity for calorie balance:

- Include food items from each meal component that limit calories from added fats or sugars.
- Limit fluid milk options to unflavored and/or flavored fat-free or 1% (low-fat); an unflavored milk must be offered at each meal service.
- Provide fruits and a variety of vegetables (subgroups) in larger portions to help students fill up on nutrient-rich foods.
- Ensure grains provided are whole grain-rich or made with enriched grains and in the amounts specified in the meal pattern.
- Prepare lean and low-fat M/MA foods with as little added oil/fat as possible.
- Limit frequency and portion size of any desserts and non-creditable food items.

Follow these guidelines and the meals you plan are likely to meet the calorie range goals. Good menu planning includes balance and a variety of foods; the meal patterns are built on the principles of good menu planning.

### Saturated Fat and *Trans* Fat

Limiting saturated fat and *trans* fats in school meals help reduce the risk of children developing heart disease later in life. The meal patterns emphasize foods that are naturally low in or free of saturated fats, such as:

- Fat-free and 1% (low-fat) fluid milk
- Fruits and vegetables
- Whole grains and whole grain-rich foods.

Foods in the M/MA component vary in saturated fat content. Plant-based meat alternates generally provide little saturated fat compared to animal-based options. Chart 10 lists the approximate amount of saturated fat found in foods served in school meals.

Lean and low-fat M/MA choices prepared without

additional fat meet the meal patterns and nutrient goals. Good menu planning includes a variety of foods. Plan your menus to:

- Provide the required meal components in required amounts.
- Use oils rather than solid fats (for example, butter, lard, shortening, margarine) during preparation and use as little as possible.
- Balance fat content from commercial foods—read labels for saturated fat content of prepared items.

**CHART 10**

**Saturated Fat Content by Meal Component**

The saturated fat content of each meal component varies. The general guide below lists approximate saturated fat values in grams for foods commonly served in schools, based on serving amounts. Values are rounded from saturated fat information from food labels. Check actual products for manufacturer information on saturated fat content.

FOOD	SERVING AMOUNT	GRAMS OF SATURATED FAT
<b>Fat-free milk</b>	1 cup	0 grams
<b>1% (Low-fat) milk</b>	1 cup	1.5 grams
<b>Fruits*</b>	1 cup	0 grams
<b>Vegetables*</b>	1 cup	0 grams
<b>Grains*</b>	1 oz eq	0 grams
<b>M/MA</b>		
<b>Beef, ground, 85–89% lean, cooked</b>	1 oz eq	2 grams
<b>Cheese, Cheddar</b>	1 oz eq	6 grams
<b>Cheese, part skim Mozzarella</b>	1 oz eq	3 grams
<b>Chicken thigh w/skin, baked</b>	1 oz eq	1 gram
<b>Egg</b>	1 oz eq (½ large)	1 gram
<b>Peanut butter</b>	1 oz eq (2 Tbsp)	3 grams
<b>Pollock fish, baked</b>	1 oz eq	0 grams
<b>Tofu</b>	1 oz eq (¼ cup)	0.5 grams
<b>Yogurt, fat-free</b>	1 oz eq (½ cup)	0 grams
<b>Yogurt, low-fat</b>	1 oz eq (½ cup)	1 gram

\* Foods in these meal components have almost no naturally occurring saturated fats; fats added during preparation may add saturated fat.

Limit daily calories (averaged over a week) from saturated fat to less than 10 percent in school meals for all grade groups. Saturated fat is measured in grams. Chart 11 is a quick reference showing the maximum grams of saturated fat per menu calorie level to keep saturated fat below 10 percent of calories. Use this tool to gauge compliance without calculating the exact percentage.

For example, a K–5 breakfast with an average of 350 calories and 3.5 grams of saturated fat per day has less than 10 percent calories from saturated fat. A menu for grades 9–12 lunch with an average of 850 calories has below 10 percent calories from saturated fat when the daily average of saturated fat is 9 grams or less.

All packaged foods provided in the NSLP and SBP must be labeled as 0 grams (<0.5 grams) *trans* fat per serving. Schools can most easily comply with this requirement with careful procurement processes, which are explained in more detail in chapter 5.

Following the school meal patterns and making wise choices should result in meals that meet the dietary specifications for saturated fat and *trans* fat. In other words, you should be able to plan your menus without making a lot of additional accommodations for these two nutrients.

### CHART 11

**Average Calorie and Saturated Fat Grams for Less Than 10 Percent Calories from Saturated Fat**

CALORIES	350	400	450	500	550	600	650	700	750	800	850
GRAMS	3.5	4	4.5	5.5	6	6.5	7	7.5	8	8.5	9

### CHART 12

**Sodium Requirements for Lunch and Breakfast**

MEAL	GRADE GROUP	SODIUM TARGET 1 (mg)*	SODIUM TARGET 1A (mg)**
Lunch	K–5	≤ 1,230	≤ 1,110
	6–8	≤ 1,360	≤ 1,225
	9–12	≤ 1,420	≤ 1,280
Breakfast	K–5	≤ 540	
	6–8	≤ 600	
	9–12	≤ 640	

\* Remains in effect through the end of SY 2022-2023 for lunch and SY 2023-2024 for breakfast.

\*\* These targets are required at lunch beginning SY 2023-2024.

### Sodium

Finally, let's review the dietary specification for sodium in school meals. The sodium requirements reflected in school meal standards are the appropriate levels for children and are consistent with the Dietary Guidelines key recommendation to limit sodium consumption. Excess sodium intake is associated with high blood pressure, a risk factor for heart disease.

Chart 12 displays the lunch and breakfast sodium requirements for all three grade groups.

FBMP can help you keep your meals within the sodium requirements when you carefully select food items to meet the meal component requirements. All foods naturally contain sodium; however, some food items tend to be higher in sodium than others. For example, vegetables are naturally low in sodium, but if you purchase canned vegetables that contain added salt, the sodium content may be high. Therefore, select low-sodium or no-salt-added versions when purchasing canned vegetables. The same principle can be applied to precooked meat items, soups, sauces, and condiments, which also tend to be high-sodium items. Because USDA Foods include a variety of lower sodium products, sourcing USDA Foods for your menus can also help you meet the sodium requirements (see chapter 5 for more information on USDA Foods).

Some foods, such as unflavored milk, fruits, lower sodium vegetables, and cereal grains with little added salt, help balance total sodium within the meal. Keep in mind, the sodium content of your meals is averaged over an entire menu week. This allows you to balance higher sodium foods and menu items from 1 menu day with lower sodium items from another menu day.

Other strategies for meeting the sodium requirements include:

- Evaluate and retest your standardized recipes to lower sodium.
- Find lower sodium large quantity recipes in the Institute of Child Nutrition's - Child Nutrition Recipe Box, <https://theicn.org/cnr/>.
- Prepare recipes without adding salt or by using low- or no-sodium ingredients, such as herbs and spices.
- Send school nutrition staff to culinary training or invite a local chef to provide hands-on instruction on how to enhance the flavor of foods.
- Add a "flavor station" of creatively labeled containers of herbs, spices, lemon and lime juice (without added sodium or sugar), and flavored vinegars in your cafeteria where students can add to their foods according to their own taste.
- Review your products' Nutrition Facts labels for sodium content and source new items with lower sodium content. Consider keeping a spreadsheet of the sodium content in any processed foods you purchase to assist with menu planning.
- Select more USDA Foods, which offer several lower sodium options for schools.
- Check with your food vendors on a regular basis to identify reduced-sodium foods coming onto the market. Manufacturers are producing more foods with reduced sodium levels for schools.
- Participate in a purchasing cooperative (co-op) to expand your selection of lower sodium products while saving money through greater purchasing power.

## Sodium Content by Meal Component

Each of the required meal components in a school meal contains sodium. The general guide below lists the approximate sodium content (mg) of foods commonly served in schools, based on serving amounts. Values in each range are based on rounded sodium information from food labels. Check the Nutrition Facts labels on food labels or manufacturer product information for sodium content of specific foods.

### Fruits

*Sodium Content per Cup*

- Fresh** 0–10 mg
- Canned** 0–10 mg
- Juice (100%)** 0–10 mg
- Dried (½ cup)** 0–10 mg

### Meats & Meat Alternates

*Sodium Content per Oz Eq (except as noted)*

#### Cheese:

- natural 170–200 mg
- processed 230–400 mg

#### Egg:

- large 140 mg or 70 mg per oz eq (½ egg)

#### Fish, Beef, Pork, Poultry:

- fresh 80–100 mg
- canned 100–170 mg

#### Beef, Pork, Poultry:

- cured/processed 200–300 mg

#### Fish:

- frozen breaded 100–250 mg

#### Peanut Butter

- 75 mg/Tbsp or 150 mg/oz eq (2 Tbsp)

### Milk (Fluid)

*Sodium Content per Cup*

- Fat-free or 1%, Unflavored** 125 mg
- Fat-free, Chocolate** 180–200 mg
- Fat-free, Strawberry** 125–130 mg
- Soy Milk**, 100–120 mg

### Vegetables

*Sodium Content per ½ Cup*

- **Fresh** 5–50 mg (prepared without added salt)
- **Frozen** 5–50 mg (prepared/processed without added salt)
- **Canned** 5–500 mg (sodium content depends on amount added during processing and natural sodium content in vegetable)

*Read food labels and choose No-Salt-Added or Low Sodium canned and frozen vegetables. No-Salt-Added means no salt was added during processing; these products often have less than 35 mg sodium per serving (½ cup). Low Sodium means the product has less than 140 mg sodium per serving (½ cup). Regular canned vegetables range from 300 to more than 500 mg per serving (½ cup).*

*Prepare fresh vegetables without added salt/sodium. Rinse and drain canned vegetables, such as beans, to reduce sodium by about 25 percent.*

### Grains

*Sodium Content per Oz Eq*

- **Breads/Wraps** 130–200 mg
- **Hard Tortilla or Chips** 130–200 mg
- **Ready-to-eat Cereals** 0–250 mg
- **Granola Bars, Crackers** 115–250 mg
- **Oatmeal/Cereal Grains (½ cup)** 10–15 mg (cooked without added salt)
- **Pasta or Rice (½ cup)** 10–20 mg (cooked without added salt)



The serving amounts for meal components and the variety of food in the meal pattern serve as natural guides to reducing sodium in the menu. Keeping the calories within the appropriate limits will also help keep the sodium within the guidelines. You will find cycle menus, recipes, and other tips to meet the sodium requirements for school meals as part of menu planning in chapter 3.

**Where To Find Product Nutrition Information**

You will find information on calories, saturated fat, sodium, and *trans* fat listed on the Nutrition Facts labels on products, in the USDA Foods Database, or on USDA Foods Product Information Sheets. You can find detailed nutrient information for over 8,000 foods at USDA, FoodData Central ([fdc.nal.usda.gov](http://fdc.nal.usda.gov)). However, the most accurate source of information for processed foods is the manufacturer.

**MEAL PATTERNS FOR VARIABLE DAYS IN WEEK (3-, 4-, 6-, OR 7-DAY MENU WEEKS)**

As noted earlier, the information in this Menu Planner uses a 5-day-week meal pattern for all examples. Schools and Residential Child Care Institutions (RCCIs) often need patterns for shorter or longer day weeks. The meal patterns for 3-, 4-, 6-, and 7-day weeks follow the same general guidance in this chapter. The specific amount of each vegetable subgroup, total grains, and M/MA is prorated for the length of the week. The variable day meal patterns are located in Appendix 2.C.

**MEAL PATTERN GUIDANCE FOR SCHOOLS WITH PRE-K MEAL SERVICE, AFTERSCHOOL SNACK SERVICE, AND SEAMLESS SUMMER OPTION (SSO)**

**Pre-K Meal Service**

Some schools provide meals to children in pre-K programs.

The final rule for the *Child and Adult Care Food Program* updates the NSLP and SBP regulations to reflect meal pattern requirements in CACFP for preschoolers (children ages 1 through 4). To serve meals to preschool-aged children, you will need to meet different requirements for fluid milk

(e.g., no flavored milk may be offered to children under 6 years of age) and other meal components. See Appendix 2.D for more information.

**Afterschool Snack Service**

Afterschool snack service (<https://www.fns.usda.gov/cn/afterschool-snacks>) has separate guidance; it also uses the *Food Buying Guide for Child Nutrition Programs* (FBG). In order to be reimbursed, the snacks must contain at least two different components of the following four:

- A serving of milk
- A serving of M/MA
- A serving of vegetables or fruits or pasteurized, full-strength 100% vegetable or fruit juice
- A serving of whole-grain or enriched bread or cereal.

**“Afterschool snacks served to preschoolers must meet the updated NSLP and SBP regulations, which reflect meal pattern requirements in CACFP. See Appendix 2.D.”**

**The National School Lunch Program’s Seamless Summer Option of the Summer Food Service Program**

The National School Lunch Program’s Seamless Summer Option (<https://www.fns.usda.gov/sfsp/seamless-summer-and-other-options-schools>) uses the NSLP/SBP meal patterns.

**School District:**

Evansville  
Vanderburgh  
School  
Corporation

**Located:**

Evansville,  
Indiana

**Enrollment:**

23,000

**Website:**

[https://district.  
evcschools.com/](https://district.evcschools.com/)

## Try It Tuesdays

Evansville Vanderburgh School Corporation introduced Try It Tuesdays during a National School Lunch Week promotion. Once a month during lunch, students sample a fruit or vegetable not typically on the school lunch menu. A fun fact sheet describes the food to help guide discussion with students as they sample the food. Community volunteers encourage students to try something new and provide facts about the food. Try It Tuesdays have featured blueberries, broccoli slaw, Brussels sprouts, edamame succotash, jicama, tropical fruit mix, and sugar snap peas, among others. Many of these foods were then added to the school lunch menus and have become favorite choices of the students. A couple years after its start, the initiative became Try It Again Tuesday. Foods from previous Try It Tuesdays are offered as research shows children may need to try a new food several times before accepting it. In the elementary schools, principals have participated to help encourage the students to try the food. Try It Tuesdays and Try It Again Tuesdays have been an effective tool for introducing students to new fruits and vegetables, encouraging them to eat more fruits and vegetables, expanding menu options, and involving the community.



Evansville Vanderburgh School Corporation promotes vegetables for Try It Tuesdays.



### CONCLUSION

This chapter provides the foundation of Food-Based Menu Planning (FBMP). The rest of this Menu Planner builds upon what you learned in this chapter. Using this chapter's guide to meal components, meal patterns, and dietary specifications allows mastery of FBMP.

Here is a recap of key concepts:

- Benefits of FBMP include
  - A single framework for school meals, making it easy to share ideas and successes
  - Grade groups, including some flexibility for blended groups where overlaps exist
  - Clear identification of food groups to help students learn how to build a healthy meal
  - Support for a culture of food safety
    - Focus on how food supports food safety in all aspects of your program
    - Food-safe practices from receiving through serving address safety concerns of foods in each component
    - Meals organized around food groups to facilitate food-safe education and engagement with faculty, staff, students, and community.
- Reimbursable meals consist of
  - Meal components planned in daily and weekly minimum serving amounts as specified by the lunch and breakfast meal patterns for each grade group.

- The meal components planned in creditable amounts to meet the patterns.
- A variety of foods balanced across the menus to meet the dietary specifications for calories, saturated fat, sodium, and *trans* fat.
- The indispensable tools for planning reimbursable meals include:
  - The *Food Buying Guide for Child Nutrition Programs* (FBG) suite of resources.
    - FBG Interactive Web-Based Tool
    - FBG Mobile App
    - FBG Calculator
    - Exhibit A Grains Tool
  - The *Whole Grain Resource for the National School Lunch and School Breakfast Programs* (Whole Grain Resource).
  - Safe, wholesome meals start with each employee's attention to safe food practices for each meal component at all times to create a culture of food safety.

Chapter 3 will focus on menu planning. You will apply the knowledge from this chapter in a final product: quality menus that meet students' preferences and reimbursable meal requirements.



**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**

1. What is the primary goal of Food-Based Menu Planning?
2. What is the required minimum daily serving amount in a Meal Pattern? What is the minimum weekly total?
3. What is the minimum creditable amount of a meal component?
4. What is the required minimum daily serving amount of vegetables at lunch for grades K–8? For grades 9–12? What are the five vegetable subgroups?
5. A 1.3-oz tortilla contains 24 grams of creditable grain. Use one of two methods to calculate the amount of creditable oz eq.
6. What is Offer Versus Serve?

***If you got the answers right, great job! You are ready for the next chapter. If you missed any, review that section of the chapter before moving on to the next chapter.***



### LINKS TO ADDITIONAL RESOURCES

Child Nutrition Programs: Transitional Standards for Milk, Whole Grains, and Sodium, Final rule. 7CFR § 210, 215, 220, 226. February 7, 2022 (<https://www.govinfo.gov/content/pkg/FR-2022-02-07/pdf/2022-02327.pdf>).

Fluid Milk Substitutes, Nutrition Standards in the National School Lunch and School Breakfast Programs, Final rule. 7CFR § 210.10(d)(3). (2012) – 77 Fed. Reg. January 26, 2012, 4146 (<https://www.gpo.gov/fdsys/pkg/FR-2012-01-26/pdf/2012-1010.pdf>).

Institute of Child Nutrition, Food Safety in Schools, 2015, University, MS. (<https://theicn.org/icn-resources-a-z/food-safety-in-schools>).

Institute of Child Nutrition, Seguridad de alimentos en las escuelas, 2016, University, MS. (<https://theicn.org/icn-resources-a-z/seguridad-de-alimentos-en-las-escuelas-spanish-version-food-safety-in-schools/>).

Institute of Child Nutrition, Meal Pattern Training Resources (<https://theicn.org/>).

Institute of Child Nutrition, Produce Safety University Resources, University, MS. (<https://theicn.org/icn-resources-a-z/produce-safety>).

Nutrition Standards in the National School Lunch and School Breakfast Programs, Final rule. 7CFR § 210 and 220 (2012) – 77 Fed. Reg. January 26, 2012, 4088-4165 (<https://www.gpo.gov/fdsys/pkg/FR-2012-01-26/pdf/2012-1010.pdf>).

U.S. Department of Health and Human Services and U.S. Department of Agriculture. *Dietary Guidelines for Americans* (<https://www.dietaryguidelines.gov/>).

U.S. Department of Agriculture, Food and Nutrition Service, Afterschool Snack Service (<https://www.fns.usda.gov/cn/afterschool-snacks>).

U.S. Department of Agriculture, Food and Nutrition Service, Child and Adult Care Food Program Meal Patterns (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>).

U.S. Department of Agriculture, Food and Nutrition Service, Food Buying Guide for Child Nutrition Programs, Alexandria, VA (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>).

U.S. Department of Agriculture, Food and Nutrition Service, Food Buying Guide for Child Nutrition Programs Interactive Web-Based Tool, Alexandria, VA (<https://foodbuyingguide.fns.usda.gov/>).

U.S. Department of Agriculture, Food and Nutrition Service, Nutrition Standards for School Meals (<https://www.fns.usda.gov/school-meals/nutrition-standards-school-meals>).

U.S. Department of Agriculture, Food and Nutrition Service, Offer Versus Serve, Guidance for the National School Lunch Program and the School Breakfast Program, School Year 2015-2016, Alexandria, VA (<https://www.fns.usda.gov/cn/updated-offer-vs-serve-guidance-nsfp-and-sbp-beginning-sy2015-16>).

U.S. Department of Agriculture, Food and Nutrition Service, Policy Memos (<https://www.fns.usda.gov/school-meals/policy>).

U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual (please contact your State agency for the most current version <https://www.fns.usda.gov/contacts/contact-map?f%5B0%5D=program%3A32>).

U.S. Department of Agriculture, Food and Nutrition Service, Summer Meal Programs Meal Toolkit (<https://www.fns.usda.gov/sfsp/summer-meals-toolkit>).

U.S. Department of Agriculture, Food and Nutrition Service, Summer Meal Program, Seamless Summer Option (<https://www.fns.usda.gov/cn/opportunity-schools>).

U.S. Department of Agriculture, Food and Nutrition Service, USDA Foods Database (<https://www.fns.usda.gov/usda-fis/usda-foods-database>).

U.S. Department of Agriculture, Food and Nutrition Service, USDA Foods Product Information Sheets (<https://www.fns.usda.gov/usda-fis/usda-foods-product-information-sheets>).

U.S. Department of Agriculture, Food and Nutrition Service, Whole Grain Resource for the National School Lunch and School Breakfast Programs, 2022, Alexandria, VA (<https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-breakfast-programs>).

U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, MyPlate, Alexandria, VA (<https://www.myplate.gov/>).

U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2019 ([fdc.nal.usda.gov](https://fdc.nal.usda.gov)).

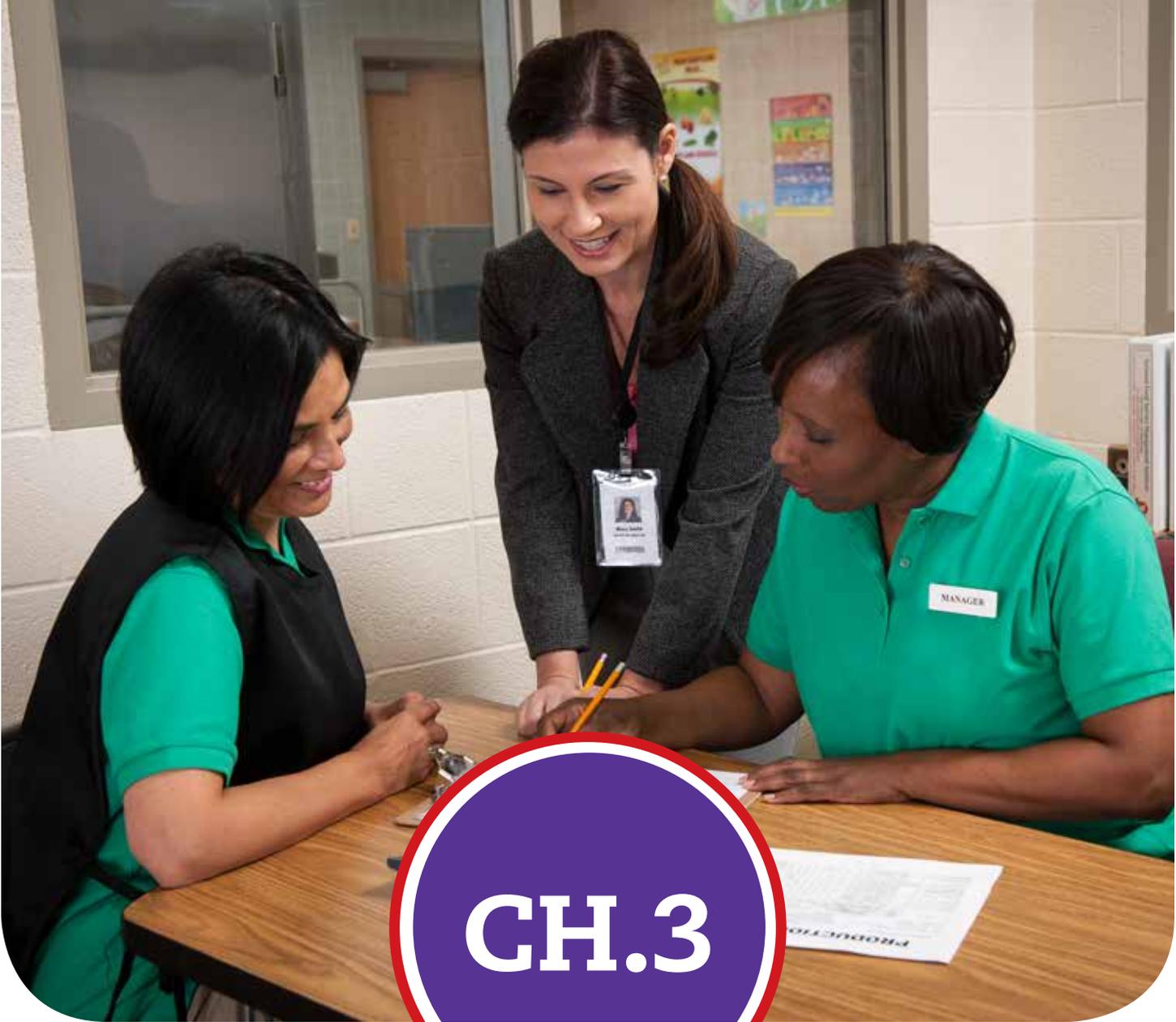
## APPENDIX ITEMS

**2.A** National School Lunch Program (NSLP) and School Breakfast Program (SBP) Meal Patterns and Dietary Specifications

**2.B** Exhibit A: Grain Requirements For Child Nutrition Programs

**2.C** Meal Patterns for 3-, 4-, 6- and 7-day weeks

**2.D** Preschool Meal Pattern: Breakfast, Lunch, and Snacks



**CH.3**

# Menu Development



# Menu Development

## CH.3

*Envision a cafeteria full of students enjoying safe, nutritious, flavorful meals presented in an appealing manner. These meals supply nutrients for growth, activity, and academic success. They are both economical to produce and affordable for students and staff to purchase. The focus of this chapter is to help make that vision a reality every day in your school(s). Before menus can be prepared and served, careful planning needs to take place. In addition to the meal pattern guidance and dietary specifications for each grade group, many other important aspects of menu development must be considered.*

### **In this chapter, you will learn about:**

- Basic menu development resources and tools, including:
  - Grade group meal patterns for both lunch and breakfast menus
  - Planning resources such as your records from past menus and ideas from new sources
  - Templates with built-in checks for program requirements
  - Cycle menus focused on seasonal foods.
- Tips for planning a lunch menu from the main dish to milk, including how to offer all vegetable subgroups with a salad bar, and food safety concerns of fruit and vegetable bars.
- Options for planning breakfast menus and the district-level choices that drive menu planning.
- Variety as a key principle of successful menu development.
- Checklists and tools to confirm menus meet all National School Lunch Program (NSLP) and School Breakfast Program (SBP) requirements.
- Training resources for your staff.

### **INTRODUCTION**

How important is menu development? In a successfully managed school lunch or breakfast

program, it may be the *most* crucial step. The nutritional value of meals and compliance with Federal program requirements depend on careful menu planning, but that is not all.

The menu influences every aspect of the school nutrition operation – from purchasing and preparing foods, to whether or not meals are popular with students. Good planning can make a huge difference in the success of your program!

This chapter explores successful menu planning for school meals. Included is a review of the process with attention given to important planning principles. You will also learn how to use the nutrition standards for school meals as a planning tool.

### **DETERMINE THE MENUS FOR YOUR SCHOOL DISTRICT**

Start your menu planning by focusing on the grade group meal patterns. Charts 1–3 show the lunch and breakfast meal pattern requirements and nutrition goals. It is also important to consider the ages or grades to plan meals that pique the interests of your most valued customers – the students! What captures the interest of high school students may not appeal to elementary school students and vice versa.

**CHART 1**

**Lunch Meal Pattern**

For the meal components shown below, the amounts listed are daily (D) and weekly (W) minimums. According to the 2012 final rule on Nutrition Standards in the National School Lunch and School Breakfast Programs and the 2022 final rule on Child Nutrition Programs: Transitional Standards for Milk, Whole Grains, and Sodium, all lunch meal patterns require <10 percent of total calories from saturated fat, all products be labeled zero (<0.5) grams *trans* fat per serving, and meet daily average sodium requirements.

GRADE GROUP	FLUID MILK (cups) Daily and Weekly		FRUITS (cups) Daily and Weekly		VEGETABLES (cups) Daily and Weekly		GRAINS (oz eq) Daily and Weekly		M/MA (oz eq) Daily and Weekly		CALORIE RANGE Daily Average	SODIUM TARGET 1 SY 2022-2023 Daily Average (mg)	SODIUM TARGET 1A SY 2023-2024 Daily Average (mg)
	D	W	D	W	D	W	D	W	D	W			
<b>K-5</b>	1	5	½	2½	¾	3¾	1	8	1	8	550-650	≤ 1,230	≤ 1,110
<b>6-8</b>	1	5	½	2½	¾	3¾	1	8	1	9	600-700	≤ 1,360	≤ 1,225
<b>K-8 Option</b>	1	5	½	2½	¾	3¾	1	8	1	9	600-650	≤ 1,230	≤ 1,110
<b>9-12</b>	1	5	1	5	1	5	2	10	2	10	750-850	≤ 1,420	≤ 1,280

**CHART 2**

**Vegetable Subgroup Weekly Required Serving Amounts for Lunch**

In addition to the subgroup amounts listed, weekly menus need to include additional vegetables (1 cup for grades K-8 and 1½ cups for grades 9-12) to meet weekly minimums of vegetables for each grade group. Additional vegetables can be from any subgroup.

VEGETABLE SUBGROUP	WEEKLY MINIMUM K-5 AND 6-8	WEEKLY MINIMUM 9-12
<b>Dark Green*</b>	½ cup	½ cup
<b>Red/Orange</b>	¾ cup	1¼ cups
<b>Beans and Peas (Legumes)</b>	½ cup	½ cup
<b>Starchy</b>	½ cup	½ cup
<b>Other* **</b>	½ cup	¾ cup

\* Raw leafy greens (iceberg lettuce) credit for half the volume; ¼ cup credits as ½ cup.

\*\* Other vegetable subgroup requirement may be met with any additional amounts from the dark green, red/orange, and beans and peas (legumes) subgroups.

**CHART 3****Breakfast Meal Pattern**

For the meal components shown below, the amounts listed are daily (D) and weekly (W) minimums. According to the 2012 final rule on Nutrition Standards in the National School Lunch and School Breakfast Programs and the 2022 final rule on Child Nutrition Programs: Transitional Standards for Milk, Whole Grains, and Sodium, all breakfast meal patterns require <10 percent of total calories from saturated fat, all products be labeled zero (<0.5) grams *trans* fat per serving, and meet daily average sodium requirements.

GRADE GROUP	FLUID MILK (cups) Daily and Weekly		FRUITS* (cups) Daily and Weekly		GRAINS** (oz eq) Daily and Weekly		CALORIE RANGE Daily Average	SODIUM TARGET 1 SY 2022-2023 & SY 2023-2024 Daily Average (mg)
	D	W	D	W	D	W		
K-5	1	5	1	5	1	7	350-500	< 540
6-8	1	5	1	5	1	8	400-550	≤ 600
K-8 Option	1	5	1	5	1	8	400-500	≤ 540
9-12	1	5	1	5	1	9	450-600	≤ 640
K-12 Option	1	5	1	5	1	9	450-500	≤ 540

\* Vegetables may also be substituted.

\*\* After 1 oz eq daily grains is offered, schools may substitute 1 oz eq M/MA to credit toward 1 oz eq of weekly grains requirement.

**Planning Menus for School Grade Levels**

In most cases, you will use the grade group that corresponds to the school type; for example, the meal pattern for grade group 9–12 served at high school with grades 10–12. You may have schools with grades that differ from the three grade groups. You will decide which menu plan works best for your needs, either one of three grade groups or a blend of two groups when possible.

A secondary school with grades 6–12 needs two lunch menu options. The required serving amounts for the meal components are different between the 6–8 and 9–12 grade groups. In this case, the menu may be similar for the school, but the planned serving amounts are different for each grade group. A school with grades 6–12 requires separate menus for grades 6–8 and 9–12.

As noted in chapter 2, it is possible to plan a K–12 breakfast that meets requirements for all three grade groups. You will decide if the advantages of a single menu outweigh the benefits of planning separate menus aligned closer to grade group needs. The meal pattern grade groups allow you to tailor menus to the needs and preferences of students as they grow and develop.

**Planning for Offer Versus Serve or Served**

Your choice of Offer Versus Serve (OVS) or Served will also affect your menu development (see chapter 2 and the *Take a Closer Look* feature on page 70 for more details on OVS and Served). OVS at lunch is required for grades 9–12 and optional for grade K–8. OVS at breakfast is optional for all grade groups.

## Blended Grade Groups Need Special Attention

Be sure to note specific concerns of a blended grade group. These menus require:

- Calories meet the needs of all grade groups served, thus a narrower range.
- Sodium content is at or below the requirement for the youngest grade group.
- Weekly totals of grains and M/MA meet all grade group minimums, which is the oldest grade groups for blended groups.



From a menu planning standpoint, OVS may not affect lunch menus much, because you develop meals that offer all five component groups. OVS has a bigger impact on breakfast menu planning. Breakfast meal patterns require three component groups: fluid milk, fruits, and grains. OVS breakfasts offer at least *four items that credit* as components. At breakfast, you have the flexibility to credit vegetables toward fruits and M/MA toward weekly grains totals. These options require attention to specific aspects of breakfast menu planning.

Consider which service type, OVS or Served, is the best fit for your breakfast operations. For example, breakfast in the cafeteria may be OVS, whereas breakfast outside the cafeteria, such as in the classroom or at a grab-and-go kiosk, may be Served (no option to decline foods). Each service type requires a different menu, even though all may feature similar foods.

### Offering Students Choices

Menus that offer students choices are popular and can increase participation. You will need to decide how many choices to offer students each day. All students will have a choice between at least two types of milk; at least one unflavored option must be offered. Provide as many choices as are practical for your program. Be consistent with the number and types of menu choices from day to day. Consistency helps your staff manage the demands of meal service.

Students in lower grades may be overwhelmed if offered too many decisions in the serving line. You may limit choices to side items on the menu, such as offering different fruits and vegetables. Older students respond positively to choices between entrees, self-serve bars, and ethnic cuisine, in addition to fruits and vegetables. Plan menus with choices so older students can choose reimbursable meals that fit their preferences.

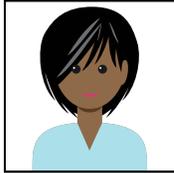
Menus for different service lines need to be planned as complete meals unless the lines share a common component choice, such as a salad bar. When lines are separate, be sure to check that each line meets the meal components and dietary specifications, including vegetable subgroups.

While menu planning seems more complicated for multiple lines, the same basic steps apply. Keep in mind that the number of choices you offer provides the framework for menu development. Once you know what needs to be included in your menus, you can organize your time and resources to begin the task.

## Menu Chat



## Hello!



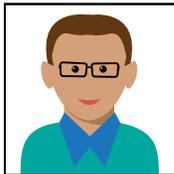
Sandra

Do you have suggestions for offering choices to students, especially students that want to eat vegetarian meals?



Lin

We have many students that choose to eat vegetarian. We plan our menus with a choice to decline the meat and accept legumes or cheese, such as a burrito with meat/bean mix or beans only. We handle this through OVS. We would prefer they choose and eat our entire meal, but we respect their personal preference for plant foods.



Dylan

I realize that our students have many dining options today. I believe that when we give our students choices, they will choose our meals. We provide a vegetarian choice each day, primarily on our build a meal line.



Sandra

**THANK YOU**

Thanks for sharing these ideas. I agree! I see the value of choices.

## Culinary Arts Students Test Recipes for School Lunch Program

Kyleen Harris, Food Service director, Abilene Public Schools, had a goal to involve high school students in selecting menu items for lunch and breakfast. She collaborated with the high school family and consumer sciences teacher. High school culinary arts students tested new recipes for the school’s lunch program as part of their final grade last semester. They used recipes from the Healthier Kansas cycle menus and from Vermont’s New School Cuisine cookbook. After testing a dozen recipes, the class picked out their favorites. During lunch period, the culinary students gave samples of Asian cabbage salad, whole grain corn bread, and taco soup to students for a taste test. The culinary students generated great feedback from other students through an online survey. The taco soup was a big success, and it’s now part of the seasonal soup and sandwich bar.



**School District:**  
Abilene Public Schools

**Located:**  
Abilene, Kansas

**Enrollment:**  
2,100

**Website:**  
[www.abileneschools.org](http://www.abileneschools.org)



Healthier Kansas 8-week cycle menus for lunch and 6-week cycle menus for breakfast are available at <https://cnw.ksde.org/>



Vermont’s New School Cuisine cookbook, featuring Farm to School is found at <https://vermontfarmtoschool.org/resources/new-school-cuisine-cookbook-nutritious-and-seasonal-recipes-school-cooks-school-cooks>

## GET ORGANIZED! MENU PLANNING TOOLS AND TIME

Well-planned menus take time and effort. When you plan in advance, you can take advantage of many tools and resources. If possible, develop your menus for the next school year by January or February. Then you will know which products to include when writing solicitation (bid) specifications (see chapter 5 for more details). The time devoted to the planning stage helps organize other aspects of meal production. Getting an early start on menu development will allow you to:

- Study current food inventories, past menus, and food production records for student preferences, as well as current market and price reports.
- Involve students, parents, and other interested parties in the planning.
- Select and test new food products and recipes.
- Review important program information, such as requirements and nutrition goals.
- Review lists of available USDA Foods and local, seasonal foods.
- Note important dates on the school calendar and other opportunities for special promotions.

### Use Menu Writing Tools

A variety of menu planning tools exists, from templates to software. Some schools will write menus the old-fashioned way using paper and pencil. Others may use a computerized form or menu planning software. No matter which method is used, menu writing brings the meal pattern and guidance to life.

The meal pattern food requirements and nutrition standards are based on a week's menu. Planning by the week, whether you use a traditional 5-day week or a variation, helps you meet requirements. Each menu day has requirements that contribute to the week. A menu template helps ensure you include all guidance details when creating your menu(s).

Menu templates are useful tools to start the process. Forms with boxes to categorize menu items into meal components provide an easy way to check that the meal is reimbursable during the planning process. These forms often include cues for required menu items, such as vegetable subgroups. And your template can reflect the length of your school week when it varies from a 5-day week. Sample menu templates are in Appendix 3.A.

Cycle menus are another useful planning tool. When you combine several weeks of menus in a rotation, you create a cycle menu. Common menu cycles are 3 or 5 weeks, or you may choose to have a 30-day cycle menu that you use all year long.

The cycle menu features a variety of foods, including seasonal items. For example, a 3-week cycle menu used in three rotations (cycles) would provide menus through the first 9 weeks of school. You can match the length of the cycle to your growing seasons to maximize the use of local foods. In general, buying fruits and vegetables in season helps make the most of your produce budget.

Cycle menus also help with forecasting. They control food and labor costs when production includes foods from a previous menu cycle day.

Proper food safety practices must be in place when production from another day is part of the menu plan. For example, if chili is produced for cycle week 1 Wednesday's entree, the production could include the amount of chili needed for a future menu day. The chili produced in advance (and any leftovers) must be properly chilled and frozen. Then the chili is safely thawed and reheated for service on week 3 Thursday's baked potato bar.



## Cycle Menus and Recipe Ideas

Today it is easier than ever for school nutrition programs to share best practices and winning menu ideas. Instead of starting from a blank sheet of paper or computer screen, take some time to see the ideas others have to share.

However, before you borrow, here is a note of caution: components and nutrient information are recipe- and product-specific. Chances are you will substitute products and modify others' cycle menus and recipes. You *must* update the information based on your changes and product inventory. Verify that the menus and recipes reflect the most current meal guidance. While seasonal foods vary by location, you can find new seasonal ideas. Cycle menus for local, in-season foods are available online. Here is a sampling:

### Lunch Meals Cycle Menus

*Menus that Move*, published by the Ohio Department of Education, is a set of seasonal cycle menus for schools. Each season (fall, winter, summer, spring) features local foods and cultural flavors. All include complete USDA Menu Certification Worksheets. Some features of the project are:

- Five weekly menus per season for grades K–8 and 9–12 with meal components and nutrients per serving
- Fifty standardized recipes that include:
  - Dark green and red/orange vegetables
  - Beans and peas (legumes)
  - Whole grain-rich foods
- Recipes and menus with USDA Foods
- Reduced sodium recipes.

An advisory group of school nutrition directors reviewed and evaluated the cycle menus for preparation ease, cost, equipment, and taste acceptance. Students in five regional school districts taste-tasted the recipes.

For more information, visit <http://education.ohio.gov/Topics/Other-Resources/Food-and-Nutrition/Resources-and-Tools-for-Food-and-Nutrition/Menus-that-Move>.

### Iowa Gold Star Breakfast Menu

Looking for a breakfast cycle menu? Iowa's Gold Star Breakfast Menu features a 2-week cafeteria-based menu and a 1-week grab-and-go menu. The menus feature USDA Foods. Each menu lists component and nutrition information.

Iowa's menu cycle showcases the best in sharing resources. They give credit to a Healthier Kansas Recipe (whole grain-rich Pumpkin Chocolate Chip Muffin) that Iowa modified for the cycle menu.

Find the cycle menus at [https://educateiowa.gov/sites/default/files/documents/1314\\_np\\_it\\_goldstar\\_cyclemenu.pdf](https://educateiowa.gov/sites/default/files/documents/1314_np_it_goldstar_cyclemenu.pdf).

If carefully planned, cycle menus offer a number of advantages. They can:

- Save time in repetitive functions such as pre-costing and work schedules.
- Improve the accuracy of forecasting.
- Decrease inventory costs.
- Adapt easily to varied grades and ages.
- Allow flexibility for such things as seasonal changes, availability of USDA Foods, and special events.
- Allow more time for training and marketing.

To use cycle menus to the best advantage, be careful to avoid some potential pitfalls. Here are some tips:

- Evaluate menus for too much repetition or monotony, and be sure to check the end of 1 week or cycle menu with the first day of the

following week or cycle menu to catch repeats. This is also good advice when you include a special menu.

- Note holidays and special school activities in advance for celebration menus, and make sure these menus, when inserted into the cycle, meet all weekly requirements.
- Be flexible to take advantage of seasonal foods and special buys from vendors.
- Be ready to make adjustments; for example, you may want to make changes to maximize the use of the USDA Foods items you receive throughout the year.

With menu templates and an understanding of cycle menus, you are now ready to start filling in the blanks. All schools in the NSLP serve lunch, so the next section will focus on the lunch meal first.



**School District:**  
Federal Way  
Public Schools

**Located:**  
Federal Way,  
Washington

**Enrollment:**  
21,800

**Website:**  
[www.fwps.org](http://www.fwps.org)

### Cycle Menus That Engage Students

Federal Way Public Schools have increased average daily participation with creative menu options and names. High school lunch rates increased the most, 7.2 percent in the first few months of the school year. The school nutrition program branded Asian-inspired entrees featuring USDA Foods on their cycle menus. On Asian Cuisine Days, cycled weekly on Tuesdays, mainline entree sales are up as much as 1,500 servings districtwide. Cougar and Huskies menu days added in the cycle menu tout the two popular colleges in the State. Ragin' Cajun Jambalaya is an example of another creative menu name.



Federal Way Public Schools added creative menu options such as Asian Cuisine Days and saw an increase in participation rates.



### DEVELOPING LUNCH MENUS

In this section, you will learn how to develop lunch meals using meal components. When it comes to planning a meal, where do you start? A good place is the center of the tray.

#### Main Dishes (Entrees)

There is no single right way to plan menus. However, starting with the main dish or center of the plate/tray helps provide a framework for other menu choices. Meats/meat alternates (M/MA) and grains frequently provide part of the entree. Use the meal component crediting on your standardized recipes, product package Child Nutrition (CN) labels, or Product Formulation Statements (PFS), and note how each item fits the meal pattern. Provide variety in M/MA and grains combinations as you select lunch main dishes.

Expand your menu options with fruits and vegetables as part of the entree. This strategy also helps students select a meal with at least  $\frac{1}{2}$  cup of vegetables/fruits. For example, offer a combination food such as vegetable stir-fry. When using OVS, this meal option helps students select the  $\frac{1}{2}$  cup of vegetable for a reimbursable meal in the main offering. Consider other ways to incorporate  $\frac{1}{2}$  cup of fruits and/or vegetables as part of the items students are most likely to select.



## Culinary Skill Training Programs

School meals are fresh and flavorful. Menus should balance student favorites with new recipes. Today's schools feature more foods prepared from scratch. Scratch cooking requires that staff know and use basic culinary techniques. These are skills that everyone can use at home, too. Several training programs are available to help bridge the gap for employees with fewer culinary skills and to boost the mastery of accomplished cooks.

Culinary skills are a topic identified in Professional Standards. Check to see whether the training you provide meets annual Professional Standards requirements (<https://www.fns.usda.gov/cn/professional-standards>).



The Institute of Child Nutrition's Culinary Institute of Child Nutrition (CICN) provides culinary training and resources for school nutrition professionals who strive to prepare and serve healthy, culinary-inspired school meals from scratch and elevate the cafeteria atmosphere for students. The CICN offers a variety of culinary trainings and resources at <https://theicn.org/cicn/> including the USDA Recipe Standardization Guide, standardized recipes with meal pattern crediting information, herb and spice guides, infographics, culinary demo videos, and culinary training resources for schools.



The quantity recipes used with this training are the winning entries of the Recipes for Healthy Kids Competition. In addition to whole grains, these recipes feature contemporary taste profiles and plenty of red/orange and beans and peas (legumes) vegetable subgroups. Ten recipes that provide at least ½ cup fruit and/or vegetable per serving include:

**Aztec Grain Salad** – Granny Smith apples, dried cranberries, and butternut squash

**Bok Choy Wrappers** – Bok choy, pineapple tidbits, and romaine lettuce leaves

**Crunchy Hawaiian Chicken Wrap** – Broccoli, carrots, spinach, and crushed pineapple



**Harvest Stew** – Carrots, celery, sweet potatoes, red potatoes, great northern beans, and spinach

**Lentils of the Southwest** – Lentils, onions, and tomatoes

**Roasted Fish Crispy Slaw Wrap** – Cabbage, carrots, bok choy, romaine, and avocado

**Smokin' Powerhouse Chili** – Carrots, red peppers, sweet potatoes, and black beans

**Squish Squash Lasagna** – Butternut squash and baby spinach

**Stir-Fry Fajita Chicken Squash and Corn** – Butternut squash, corn, red peppers, tomatoes, and chilies

**Tasty Tots** – Fresh sweet potatoes and garbanzo beans

You can find the entire recipe collection at <http://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>.

Serving vegetable-rich entrees is one way to lead students toward better nutrition; chances are they will accept the offer of additional fruit and vegetable choices from the serving line. For example, have your staff ask, “Would you like an apple or pear with your vegetable stir-fry?”

Build-a-lunch concepts offer four components individually to create a personalized reimbursable meal. For example, offer the parts of a rice bowl: brown rice, a variety of steamed vegetables, choice of tofu or chicken, topped with pineapple, sliced almonds, and low-sodium teriyaki sauce. Build-a-lunch is a delicious way to offer students a nutritious meal in which they are creatively involved. Give it a try. You may find that both meal enjoyment and participation increase.

Be deliberate when selecting entrees:

- Follow a plan for providing a *variety* of entrees, including a variety of M/MA options.
- Vary other foods served with entrees that are repeated during a 2-week period.
- Follow Smart Snacks in Schools standards (see Appendix 3.B) if an entree is offered as an a la carte item.

### Side dishes and side items

After you decide on entrees, plan side dishes. Select items that complement your main dish offerings. Side dishes can be a wide variety of fruits and vegetables. Choose some traditional pairings (baked beans with a summer picnic theme meal) and add innovative options (slices of a Granny Smith apple and red pepper strips to add crunch to a fold-and-go cheese flatbread sandwich). Keep in mind that students like many vegetables raw as well as cooked. When introducing new foods, start with small amounts to reduce waste and improve acceptance.

Additional grains may be side items, such as rolls, bread sticks, or grain-based salads and side dishes. Occasionally you can include a grain-based dessert, but no more than 2 ounce equivalents (oz eq) per week.

### Fruit and Vegetable Bars

Self-select bars are one of the best ways to encourage student intake of fruits and vegetables. When students have a choice among vegetables, they are likely to select something they want to eat. A variety of fruit choices can be hard to resist. Salad bars can also be a great assistance to providing the vegetable subgroups throughout the week.

Your bar choices may be as simple as raw fruits and vegetables. Or, you can add specialty salads, for example, three-bean or marinated carrot coins. You may plan a salad bar that provides a complete meal by including grains and M/MA. Condiments require extra attention, because condiments must be added into the weekly averages for dietary specifications. You must plan a service method that provides portion control.

Schools without salad bar equipment can create choice bars of preportioned fruits and vegetables to achieve the same goal. Foods without sneeze guard protection must be covered. Placing ice packs under foods keeps items cold and out of the temperature danger zone (41 °F–135 °F). Here are two ways to offer a choice bar for students:

- Portion cups with lids
- Individual plastic bags.

### Rearranging Serving Line Increases Fruits and Vegetable Consumption

Post Falls School District rearranged the serving lines in schools districtwide to have students go through a salad bar before being served the main entree. The school nutrition staff interact with the students to encourage fruit and vegetable consumption with positive cues, such as, “You’re welcome to take more veggies if you would like to!” and “The salads are so beautiful today! Would you like one?” This service change has increased students’ consumption of fruits and vegetables.



Post Falls School District students select more fruits and vegetables due to lunch line changes and staff training.



**School District:**  
Post Falls School District

**Located:**  
Post Falls, Idaho

**Enrollment:**  
5,700

**Website:**  
[www.pfsd.com](http://www.pfsd.com)



## **Salad Bars: A Student-Friendly Strategy to Offer Vegetable Subgroups**

Salad bars are popular with schools and students and are a great way to offer the vegetable subgroups. The option to build a salad to personal tastes is a winner with students. When students select and serve their own salad, they are likely to eat more vegetables. Let's explore salad bars from several viewpoints.

### **Vegetable Subgroup Strategies**

Many schools feature all of the vegetable subgroups on their bars daily, thus meeting the weekly requirements. Use the daily salad bar tab in the USDA Certification of Compliance Worksheets to check your plans for components. Follow these few steps when planning a food bar that meets reimbursable meal requirements:

- Complete a salad bar production record.
- Identify the items to offer each day; vary choices for interest.
- List a planned serving amount for each item.

In the simple example below, each vegetable subgroup is included in the daily salad bar. For most subgroups, the daily planned serving amount is the minimum creditable  $\frac{1}{8}$ -cup portion. Over a 5-day week, this daily amount totals  $\frac{5}{8}$  of a cup. Thus, the sample salad bar meets (actually exceeds) the  $\frac{1}{2}$ -cup weekly requirement for dark green, beans and peas (legumes), and starchy subgroups for all grades K–12 and other vegetable subgroup for grades K–8.

For grades 9–12, the weekly minimum requirement for the other vegetable subgroup is  $\frac{3}{4}$  cup. Remember, dark green, beans and peas (legumes), and red/orange can credit toward the other vegetable subgroup, after the weekly minimum totals for each are met. When the extra  $\frac{1}{4}$  cup from these subgroups ( $\frac{1}{8}$  cup each dark green and legumes) is added to the  $\frac{5}{8}$  cup of other, the total is  $\frac{7}{8}$  cup which meets the requirement.

Note that for all grade groups, the planned daily amount of red/orange subgroup is  $\frac{1}{4}$  cup. A daily  $\frac{1}{4}$  cup totals  $\frac{1}{4}$  cups red/orange subgroup for the 5-day week. Weekly red/orange subgroup minimum totals for grades 9–12 ( $\frac{1}{4}$  cups) are met and for grades K–8 ( $\frac{3}{4}$  cup) are exceeded.

Including the  $\frac{1}{4}$ -cup portion of red/orange subgroup daily also means this bar meets the meal pattern requirement for least  $\frac{3}{4}$  cup total vegetable daily for grades K–8. For grades 9–12, additional vegetable is needed to meet the 1-cup daily requirement at lunch. Vegetable choices on the serving line or planned larger portions of all subgroups on the salad bar are ways to meet both the daily 1 cup and weekly subgroup totals for grades 9–12.

**Planned serving amounts for a sample salad bar to meet weekly subgroup requirements for K–8 and 9–12**

SUBGROUP REQUIREMENT PER WEEK BY GRADE GROUP	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	PLANNED WEEKLY TOTALS OF CREDITABLE VEGETABLES
<b>Dark Green*</b> ½ cup K–8 ½ cup 9–12	¼ cup romaine*	⅛ cup broccoli	¼ cup baby spinach*	⅛ cup broccoli	¼ cup spinach romaine blend*	⅝ cup* (creditable)
<b>Red/Orange</b> ¾ cup K–8 1¼ cups 9–12	¼ cup carrots	¼ cup red pepper	¼ cup grape tomatoes	¼ cup carrots	¼ cup raw sweet potato	1¼ cups
<b>Beans/Peas (legumes)</b> ½ cup K–8 ½ cup 9–12	⅛ cup black beans	⅛ cup kidney beans	⅛ cup garbanzo beans	⅛ cup black beans	⅛ cup garbanzo beans	⅝ cup
<b>Starchy</b> ½ cup K–8 ½ cup 9–12	⅛ cup jicama	⅛ cup chilled corn	⅛ cup green peas	⅛ cup jicama	⅛ cup potato salad	⅝ cup
<b>Other* **</b> ½ cup K–8 ¾ cup 9–12	⅛ cup cucumber	¼ cup iceberg*	⅛ cup cauliflower	¼ cup iceberg*	⅛ cup celery	⅝ cup** (creditable)
<b>Total Creditable Vegetable per Day</b>	¾ cup	¾ cup	¾ cup	¾ cup	¾ cup	3 ¾ cups

\* Raw leafy greens (including iceberg lettuce) credit for half the volume; ¼ cup credits as ⅛ cup.

\*\* Other vegetable subgroup requirement may be met with any additional amounts from the dark green, red/orange, and beans and peas (legumes) vegetable subgroups.

For the sample salad bar plan above, the last student in the line must have access to at least the minimum planned serving amount of each subgroup each day (or at least 3 days for red/orange at K–8 level). This assures the bar provides the required weekly subgroup totals across the menu week. Students will select vegetables from the variety available and have the opportunity to create different salad options each day. Staff will record leftovers after the end of meal service on the production record. See Appendix 4.A for a sample production record for a salad bar. You will notice that the sample production record includes fruits as do many salad bars.

The example described here is one way to use a salad bar to meet vegetable subgroup requirements. You will decide which approach works best for your students, staff, food budget, and menu variety. You may consider another approach that meets the guidance, such as:

- Using fewer daily choices with larger planned serving amounts
- Planning a different combination of foods than in the example
- Creating grade group-specific salad bars
- Combining options for some vegetables from the service line and others from a salad bar.

Salad bars are a flexible way to meet weekly vegetable subgroup requirements. This flexibility requires that child nutrition staff is trained to recognize creditable amounts and serving volumes that meet requirements, including OVS when implemented.

### Food Safety Considerations for Salad Bars

Safe food practices for salad bars focus on preparation and service. Train staff to follow standard operating procedures (SOPs) for handling and preparing fresh produce. A sample SOP for preventing contamination at food bars is one of the many SOPs available from the Institute of Child Nutrition (ICN). See chapter 4 in this Menu Planner for more information on food safety SOPs.

The ICN fact sheet Handling Fresh Produce on Salad Bars (<https://theicn.org/icn-resources-a-z/produce-safety>) gives complete safe food practices, such as:

- Preparation and set up, including:
  - Equipment needs
  - Options for preportioned servings
  - Portion control for condiments
  - Recommendations for serving containers and utensils
- Temperature control, including:
  - Equipment temperature prior to service
  - Produce temperature prior to service
  - Guidance for ice or ice pack use for equipment without a refrigeration unit
- Supervisory needs, including:
  - Student instruction and assistance for safe-food practices
  - Guidance for replenishing food
  - Bar maintenance for cleanliness during service
- Cleanup, including:
  - Removal of food after service for proper storage or discard
  - Cleaning of equipment.

The bar requires adult supervision for more than food safety reasons. Your staff monitors the choices students select for sufficient serving amounts to meet reimbursable meal criteria. Also, replenishing foods as they deplete is necessary to assure all students have access to all vegetable subgroups.



### Handling Fresh Produce on Salad Bars\*

#### Preparation and Set Up

- Use equipment with food shields or sneeze guards. In elementary schools, equipment with a solid barrier between the students and the food is recommended.\*\*
- Consider offering pre-packaged or pre-portioned items for students in all grades. In elementary schools, pre-packaged or pre-portioned items are recommended for all self-service items.\*\*
- Place a clean and sanitized utensil in each container on the salad bar. Consider replacing utensils at the beginning of each meal period.
- Label containers to identify foods and condiments.
- Use dispensers or single-use packages for salad dressings and other condiments.
- Set up the salad bar just prior to the meal period.
- Select container size so that food is used within one meal period.
- Provide individually wrapped eating utensils, or keep unwrapped utensils in containers with the handles up.

#### Temperature Control

- Verify that the temperature of equipment is at 41 °F or below before use.
- Check to be sure the bottom of the pan comes into contact with the ice or ice pack, when using them for temperature control.
- Chill foods to an internal temperature of 41 °F or below before placing on the salad bar.
- Check and record internal temperatures of each food item with a clean, sanitized, and calibrated thermometer before placing it on the salad bar. Check at least every two hours to verify that it remains at or below 41 °F.

#### Supervision

- Consider using a serving line with a solid food shield in elementary schools, allowing students to select items for assisted service rather than self-service. Employees place selected items on a plate or tray, then pass it over the food shield to students.\*\*
- Monitor self-service salad bar in middle and high schools to ensure that students do not:
  - Touch food with bare hands.
  - Touch food with clothing or jewelry.
  - Cough, spit, or sneeze on food.
  - Use utensils in multiple containers.
  - Place foreign objects in food.
  - Place dropped food or utensils back into containers.
  - Use the same plate or tray on subsequent trips.
- Assist students with utensils, if needed.
- Avoid adding or layering freshly prepared food on top of food already on salad bars and self-service lines. Check with your state or local health department for regulations on replenishing food.



### Teaching Food-Safe Habits for Salad Bars

Creating a culture of food safety includes teaching students and adults proper salad bar etiquette. The entire school’s actions, from food service staff to students and faculty, contribute to food-safe salad bars.

Craven County Schools introduced garden bar etiquette to all their 23 schools by partnering with a high school media class and football team. The resulting video shows self-service the right way, modeled by football players in uniform. The video is also a source of education for the greater community: parents, patrons, and media.



**Craven County Schools garden bar**



**School District:**  
Craven County Schools

**Located:**  
New Bern, North Carolina

**Enrollment:**  
14,700

**Website:**  
[www.cravenk12.org/](http://www.cravenk12.org/)

### Farm to School and School Gardens – Lunchroom, Classroom, and Community

Ed Christensen, assistant supervisor, Food and Nutrition Services, Missoula County Public Schools, and his staff began to introduce local foods into their school menus a few years ago. The program began with apples from the Bitterroot Valley, soon followed by squash, pinto beans, flour, honey, and broccoli. Now MCPS has a “school farm” with 16 raised garden beds built at the central kitchen site. The first year, they planted the beds with onions, reaping a harvest of over 300 pounds that were diced, stored, and used in recipes throughout the school year. Each



year they try something different; their latest success story is ... kale! As a “kale ambassador,” Ed Christensen has led the way in developing a student-favorite, foolproof recipe for kale chips. With a recipe that the kids love, the natural next step was to plant bunches of kale in the six school garden plots. One of Ed’s goals is to meet the school district demand of kale by growing it themselves. With over 300 pounds harvested so far, it just may happen.

**School District:**  
Missoula County Public Schools

**Located:**  
Missoula, Montana

**Enrollment:**  
8,700

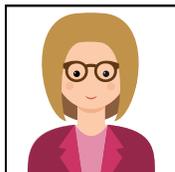
**Website:**  
[www.mcpsmt.org](http://www.mcpsmt.org)

**Assistant supervisor Ed Christensen creates kale chips for school menus from kale grown in school garden plots in Missoula County Public Schools.**

## Menu Chat

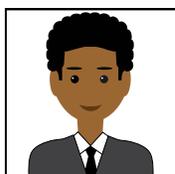


Hi,



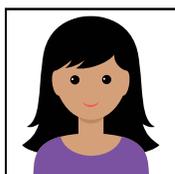
Megan

I'm looking for some help. How do you make sure you have all the vegetable subgroups offered over the week?



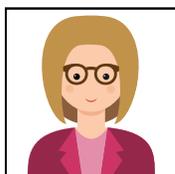
Tyler

Our menus use a fresh fruit and vegetable bar to offer all vegetable subgroups. Then, we offer additional hot vegetables on our serving line, a different subgroup each day. We credit all the beans and peas (legumes) on the serving line as meat alternates. We cover offering the weekly vegetable subgroup requirements by including all on our vegetable bar.



Elena

I plan all five of our high school lunch lines to offer the same vegetable subgroup each day. We might serve cooked carrots for two different lines that share serving space, a marinated carrot salad as part of the self-serve salad bar and the pizza line, and baby carrots with the sandwiches.



Megan

**THANK YOU**

I think a fruit and vegetable bar is the solution for our schools. Thanks for the ideas!

**Juice**

Over the course of a week, up to half the fruits and/or vegetables at lunch can be pasteurized, full-strength, 100% juice. Be aware that while students may choose both juice and milk for breakfast or lunch, serving juice may reduce milk consumption. Limiting juice helps encourage milk consumption.

**Fluid Milk**

Menu planning for milk is simple. You must provide at least two choices at every meal. Fat-free and 1% (low-fat) unflavored or flavored milks are the allowable choices provided that unflavored milk is offered at each meal service. Some dairy suppliers offer milk in a variety of flavors. You can include a flavored selection on a regular or occasional basis. Some schools provide unflavored milk choices at breakfast and include a flavored option at lunch 1 or more days a week.

Although flavored milk may contain more calories and added sugars than unflavored milk, studies show students choose milk more often when flavored is a choice. Not only do students drink

more milk when it is flavored, they also eat more of the accompanying food on their tray. Flavored milk can help increase or maintain participation.

Offer options consistent with students' preferences. Also, evaluate preferences from the prior school year and make changes accordingly.

**Water**

Drinking water (potable water) is neither a component nor a menu item. However, it must be accessible to students during meal service, free of charge. A water fountain in the cafeteria or nearby adjacent hallway fulfills this requirement as long as the water is available without restriction in the location where meals are served. Offering bottled water is not required, but it is an allowable expense. Keep in mind that while water must be available during meal service, it must never be promoted as an alternative selection to fluid milk.

This section covered lunch planning from main dish to milk. If you offer breakfast, read the next section. If you do not offer the SBP, you can skip to the next step in menu planning: evaluate for variety.

**Encourage Unflavored Milk**

Try this technique to encourage the selection of unflavored milk! Students may be likely to take an easy-to-reach option rather than a hard-to-reach one. This can nudge students to make healthier choices without eliminating their options.

How To Do It:

Rearrange coolers to:

- Place unflavored milk in front of other milk options.
- Place milk first in line, before other drinks.

Both actions will position unflavored milk in the first and easiest-to-access location. Research shows this switch can increase voluntary selection of unflavored milk.

What It Will Cost:

- Time: 5–10 min
- Money: \$0



## PLANNING BREAKFAST MENUS

### Important Meal With Important Choices

You might be familiar with the saying, breakfast is the most important meal of the day. How you plan this meal matters because of the SBP's flexibility. Breakfast menus may take a bit more planning than lunch, depending on your local district choices. Breakfast preparation time, staffing resources, and the service style may differ from lunch. However, you will use many of the same development steps used for lunch menus. Your district-level choices for breakfast determine aspects of your menu. Review key features of the SBP before you begin menu planning. Here is a summary of what you learned in chapter 2:

- Breakfast requires three meal components for all grade groups: fluid milk, fruits, and grains.
- Except for weekly minimum grain requirements, the breakfast meal pattern is the same for all age groups.
- Because the dietary specifications overlap, a single K–12 breakfast menu is possible.
- OVS is optional for all grade groups at breakfast.
- Breakfast patterns offer school districts flexibility on service and crediting of vegetables and M/MA.

### Flexibility in District-Level Choices

Breakfast meal patterns offer flexible meal choices, but with choices come decisions. The first choice is between OVS and Served. OVS is recommended to help reduce costs, reduce food waste, and increase participation. Served may be the best choice in some schools, such as K–5 breakfast in the classroom, while OVS works well in the cafeteria. Once you decide to use OVS or Served, you need to follow it each menu day.

Whether you choose OVS or Served, all breakfast menus must provide the three required meal components, the daily required serving amounts, and the weekly total grains, and meet the

combined dietary specifications for any blended grade group. The daily components and required amounts are:

- 1 cup milk, from at least two allowable milk variety choices; if flavored milk is offered, then unflavored milk must also be available.
- 1 cup fruits, with no more than half of week's offerings as pasteurized, full-strength 100% juice
- 1 oz eq grains daily and additional grains to meet weekly totals per grade group.

An OVS breakfast must offer four items that credit as full servings of components. Remember the *Menu Chat* about breakfast between the school menu planners in chapter 2. Each took a different approach for crediting the same breakfast menu.

During menu development, you will decide whether or not to take advantage of flexibility in crediting vegetables and M/MA toward the required breakfast components. If you include vegetables or M/MA at breakfast, remember the following:

- Vegetables can be an extra food, not a component of a reimbursable meal, or
- Vegetables may credit for some or all of the required fruits component when these guidelines are followed:
  - Equal volume measures of vegetables can be substituted for equal volume measures of fruits.
  - Vegetable juices must be pasteurized, full-strength 100% juice and count toward the limit on juice offered weekly.
- M/MA can be an extra food, not a component of a reimbursable meal, or
- M/MA may credit toward the required weekly total grains, *only after* meeting the daily grains requirement.

**“M/MA can meet the entire grains component at breakfast three times per week for preschoolers.”**

Some school nutrition programs keep breakfast meals as simple as possible. They provide a Served breakfast of the three components. When M/MA or vegetables are included at breakfast, these foods are extra items, not components. In this meal scenario, every student must leave the serving line with 1 cup of milk, 1 cup of fruit, and at least 1 oz eq of grains for a reimbursable meal. Extra foods are optional so the student has a choice to accept or decline. Any extra foods are part of meal totals for calories, saturated fat, and sodium.

You can choose to credit vegetables and M/MA in your Served breakfast menus. If so, follow the guidance to correctly credit additional components (vegetables and M/MA) toward the required components (fruits and grains, respectively) for breakfast. Careful menu planning helps assure that the crediting is correct.

Other schools choose to provide an OVS breakfast. They provide at least four items that credit as components. Students must leave the serving line with at least three items. One item must credit for at least ½ cup of the fruits component. Under OVS, you also have the option to credit vegetables and

M/MA as part of the required meal components at breakfast, and you must follow the guidelines to do so. *Following the guidelines cannot be emphasized enough.* However, you can also choose to include these foods as extras that do not count as components toward the reimbursable meal. Again, remember that extra foods add to the weekly menu totals for calories, saturated fat, *trans* fat, and sodium.

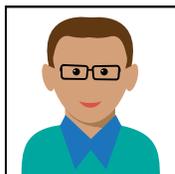
Be sure to record on production records your decisions on OVS or Served and how any vegetables and M/MA included in breakfast menus may credit toward reimbursable meals. For example, on the production record, vegetables will appear with fruits when guidance for crediting is followed and will appear as an extra when not counted toward a reimbursable meal. When vegetables are credited toward the fruits requirement, your staff must understand the guidance; any menu changes must follow the substitution rules for the week. Similar clear communication is needed for any M/MA included in breakfast.

Once your menus for lunch and breakfast are developed, the next step is to evaluate for variety. You may discover a need to make a few adjustments.

## Menu Chat



Hi,



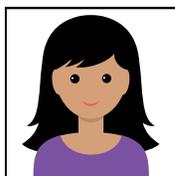
Dylan

I am looking for creative ideas for meeting the meal pattern guidance at breakfast. What is working for you?



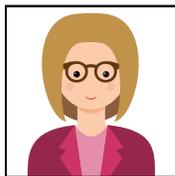
Lin

Our first priority is to follow the meal pattern and meet the component requirements daily and weekly. Once we have our milk, fruits, and grains on the menu, we look to see how we can meet our students' preferences within the dietary specifications. For example, our students love grits, so we offer a whole-wheat toast to meet the grains requirement at breakfast and grits as an extra every once in a while. The grits we purchase do not credit as whole or enriched grains so they do not count as a component in reimbursable meals. If you choose to go this route, explain this to your staff. Be sure to include all foods that are offered in the nutrient totals for calories, saturated fat, and sodium. In another menu week, we might choose a day to offer O'Brien potatoes at breakfast as an extra. The students look forward to these items on an occasional basis. We meet the program requirements and satisfy our customers.



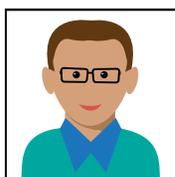
Elena

We found a creative use for the salad dressing shaker we use for lunch. At a grab-and-go station, we offer the shaker with yogurt and flavored applesauce layered on top. Students can grab a juice and milk and shake their own smoothie to enjoy with a granola bar. Or they can enjoy them as a parfait.



Megan

I keep a copy of the Meal Requirements under the National School Lunch and School Breakfast Program: Questions and Answers for Program Operators handy during menu planning. I refer to it and the policy memos to make sure I adjust my menus to the latest information. For example, we offer smoothies made with vegetables. We follow the guidance for substituting vegetables for fruits at breakfast. I keep in mind the total limit on juice at breakfast – no more than half of the offerings over the week. We also credit the yogurt in our smoothies as a meat alternate. We may expand smoothies to lunch menus for a grab-and-go option.



Dylan

**THANK YOU**

Great suggestions, everyone! Thanks for sharing with me.

## EVALUATING FOR VARIETY

As you work to plan meals that are nourishing, appealing, and taste good, think about how to vary your menus. Serving a variety of foods is important because no one food or group of foods provides everything needed for a healthy diet. Variety also makes menus interesting and appealing to students, which enhances participation. That is not all. Menu variety may support other goals for your school nutrition program, such as controlling costs and incorporating local and regional foods.

Across the country, schools are offering meals in a variety of interesting forms, from simple boxed lunches to multi-item buffets. Just as school lunches and breakfasts come in many forms, so do the foods that go into them. Advances in food technology make it possible to select foods in many forms. Choices include products that are frozen or chilled, partially or fully prepared, preportioned, or bulk. Use a variety of ingredients easily put together “from scratch.”

All these choices make menu planning exciting as well as challenging. Where do you begin? The basic menu planning principles listed below center around incorporating variety.

When building variety into your menus, think about your customers’ preferences and nutrition needs. Evaluate whether your menus vary within each meal and/or over time in terms of:

- Foods within each meal component
- Foods served at lunch and breakfast on the same day
- Color
- Flavor
- Texture
- Shapes and sizes
- Ethnic styles
- Temperature
- Preparation method
- Cost
- USDA Foods
- Local and regional foods, including Farm to School and school gardens
- Presentation on the serving line.

Let’s look at each of these principles in more detail. This information is adapted from the Institute of Child Nutrition’s (ICN) *Introduction to School Nutrition Leadership: Customer Experience* (<https://theicn.org/icn-resources-a-z/introduction-to-school-nutrition-leadership>).

### Variety of Foods Within Each Meal Component

Serving a variety of foods within each meal component helps keep menus interesting and appealing. Additionally, there is a nutritional benefit, because foods within the same group have different combinations of nutrients and other beneficial substances.

For M/MA, build in five different M/MA foods for 5 days of menus. For example, M/MA as menu items for 1 week could be spinach and cheese lasagna, hamburgers, turkey sandwiches, tofu stir-fry, and fish tacos. For grains, include foods made with a variety of grains, such as whole-wheat bread, quinoa, brown rice, oatmeal, and corn tortilla across the menu week.

### Variety of Foods Served Within Each Day's Menu

Be sure to compare the foods at breakfast with lunch items for the same day. Look for repeats in similar items, such as breakfast pizza the same day as pizza for lunch. Make sure different forms of the same fruit are not planned for the same day, such as apple juice and apple slices at breakfast and applesauce at lunch.

### Variety of Colors

Use combinations of colors that go together well, and strive for contrast and maximum color presentation. A good rule of thumb is to use at least two colorful foods in each menu for visual appeal.



#### School District:

Postville  
Community School  
District

#### Located:

Postville, Iowa

#### Enrollment:

700

#### Website:

[www.  
postvilleschools.  
com/](http://www.postvilleschools.com/)

### Collaboration Fosters Awareness and Promotion of Local Foods

At Postville Community School District, classroom activities, parent communication, and lunchroom tastings are coordinated to highlight local foods. Once a month, high school 4-H members visit second grade classrooms to talk about a different local food and conduct taste tests. In the classroom, high school students describe



Student helps harvest sweet potatoes from the school garden in Postville, IA.

how the food is grown/raised and what nutrients it contains, and then conduct a taste test of that food. Parents receive information detailing the benefits of eating locally along with a recipe that they can make using the “food of the month.” For example, in December, carrots are the harvest of the month vegetable in the lunchroom. A taste testing featured a carrot-sweet potato mash made from local carrots and sweet potatoes from the school garden.

In addition, too many foods of the same color limit appeal. A meal with turkey, cauliflower, brown rice, and pears lacks color contrast. A better combination is turkey and cranberry sauce, green peas, whole-wheat bread, and pears.

Remember that fruits and vegetables are wonderful for adding natural color to side dishes as well as entrees. A radish slice really brightens up a potato salad. A fresh grape or strawberry livens up a dish of diced pears or peaches.

Use colorful foods in combination with those that have little or no color. Serve broccoli spears with whipped potatoes, for example. Add pimento or green pepper to corn. Offer a bright red apple and green lettuce with a hamburger and baked beans. Serve green beans and apricots with oven-fried chicken and mashed potatoes.

And don't forget spices and garnishes. Even if they are not creditable, they add color. It's easy to include carrot curls or a dash of paprika for extra color.

### Variety of Flavors

Use a combination of mild and strong flavors to balance flavors in appealing ways. Make sure individual foods, when paired, make a winning combination. Too many strongly flavored foods may make a meal unacceptable to children. As students get older, they seek out stronger flavors. However, a meal that is overloaded with flavor is problematic, no matter what the age. For example, a meal of pepperoni pizza, Cajun potatoes, coleslaw, and a brownie has too many spicy and strong flavors. Conversely too many mild flavors may make a meal too bland.

### Variety of Textures

As you plan a meal, think about the texture of foods. Do you have a balance of crunchy, soft, chewy, and other textures? Crisp, firm foods pair well with soft, creamy ones. Serve a green salad or raw vegetable with spaghetti. Offer a crunchy fruit or vegetable with a burrito, and crisp, steamed carrots and broccoli with meatloaf. Pair toasted garlic bread and cold broccoli salad with cheese ravioli.

### Variety of Shapes and Sizes

To make a menu interesting, include different shapes and sizes. Within a meal, present foods in several different shapes, such as cubes, mounds, shredded bits, and strips. If you plan fish sticks, oven-baked French fries, carrot sticks, and apple slices, you have several similarly shaped foods. A meal with more varied shapes might feature a baked chicken leg, mashed potatoes with low-fat, low-sodium gravy, green beans, and a watermelon wedge.

### Variety of Ethnic Styles

Consider the regional, cultural, and personal food preferences of your students. Also, keep in mind that students are exposed to a variety of ethnic foods outside of the school setting. By building varying ethnic styles into your menu, you keep students interested. Additionally, ethnic styles will probably increase variety because they incorporate different ingredients. Alternate Mexican, Mediterranean, Asian, Indian, and other ethnic styles with the more traditional American fare. Ethnic cuisine can be a great source of flavorful dishes featuring beans and peas (legumes). The spice and herb combinations may help lower sodium, too.

### Variety in Temperatures

As you plan menus, think about how a balance of hot and cold foods adds variety. Try topping steaming hot tamales with cool zesty salsa. Offer a chicken Caesar salad wrap with baked sweet potato fries. Serve Thai tofu stir-fry with a crisp green salad.

### Variety in Preparation Methods

Vary the types of main courses you serve. For example, serve soup and sandwiches one day, and casseroles or a main-dish salad the next. Include a wide variety of foods from day to day. Unless you provide choices, avoid planning the same form of food on consecutive days, such as meatballs with spaghetti on Monday, followed by meat ravioli on Tuesday.

Include different forms of foods, and prepare them in a variety of ways. For instance, some vegetables are tasty served raw. Others are delicious oven roasted. If you usually serve a particular vegetable cooked, serve it uncooked if it is good that way. Or cook it but use different sauces or seasonings. In any case, be sure the “different way” of serving is as appealing as the “usual way.”

Be sure to consider the kind and size of ovens, kettles, steamers, and other equipment needed for different preparation methods. Also think about freezer and refrigeration space. Questions to ask include:

- Does the kitchen have sufficient ovens for the amount of baked items on the menu?
- Is there enough cold holding space for a day of main dish salads only?
- Can the product be batch cooked to maximize food safety, flavor, and cost savings with minimal overproduction?

### Variety in Costs

Be sure to consider cost when planning menus for variety. You can build in popular menu items that may be more expensive by reducing costs for other meals. Keep records of the approximate cost per serving of each menu item to determine what each lunch will cost as well as the average lunch cost per month. Also, keep in mind that more expensive items may make up for themselves in cost if participation jumps due to popularity. Conversely, if you serve a less expensive meal that students will not buy, it is not really saving money; it may be costly and wasteful.

### Variety with USDA Foods

With a wide variety of nutritious food items available (fresh, frozen, packaged, canned, dried, and bulk), USDA Foods can help you improve your menu variety while staying in budget. USDA Foods can also help you meet nutrient requirements because many low-sodium, no-salt-added, and reduced-fat food items are available. You will find more information about USDA Foods in chapter 5.

### Variety in Local and Regional Foods

Local and regional foods enhance variety, especially by increasing the mix of fruits and vegetables in your menus. Use local produce in season. Plan to serve lots of fresh fruits and vegetables when they are plentiful and at the peak of quality. Remember to list all local foods, including fluid milk, grains, and M/MA, in addition to produce, in your marketing efforts. The USDA Farm to School Program (<https://www.fns.usda.gov/cfs>) includes research, training, technical assistance, and grants to help schools source more locally or regionally produced foods, develop school gardens, and provide complementary educational activities (see chapters 4 and 7 for more information).

### Variety in Serving Line Presentation

Your customers’ first impression of your school nutrition program is how a meal looks. Make sure the menu items look and taste great. Students eat with their eyes first. If the food looks good, they will taste it. If it tastes good, they will eat it. The importance of linking food presentation and merchandising to customer service cannot be overstated. Here are presentation tips:

- **Think of the total presentation.** As you plan for color, consider your serving dishes, plates, or trays, as well as the colors of the foods.
- **Make the serving line attractive.** Try to add color and texture to the service line. Where possible, garnish food in steam table pans. For example, add a few red or green pepper rings to a pan of macaroni and cheese. Put parsley, a tomato wedge, or a piece of brightly colored fruit on a tray of sandwiches.
- **Plan the way you will place the menu items on the tray or plate.** Visualize how the food will look when plated and decide on the most attractive arrangement. Before serving the lunch, portion a sample tray/plate so that all servers can see how it should look. This is also a good way to show correct serving sizes to students and staff.

## Linking School Gardens to Fitness, Nutrition, Science, and Discovery Lessons

St. Joseph Community School is known in northeast Iowa for its garden and garden-related activities connected to fitness, nutrition, science, and discovery lessons. The school nutrition program features school garden produce in meals. A variety of grants helps the Pre-K, K–8 school pay for a Food and Fitness FoodCorps or AmeriCorps representative who helps with fitness activities, the school garden, taste testing during lunch, and cooking activities in the classroom. The school hosted its third annual Spaghetti Supper fundraiser featuring tomatoes from the school’s garden. They processed 300 pounds of school-grown, garden fresh tomatoes into 125 quarts of spaghetti sauce for the event.



**School District:**  
St. Joseph  
Community School

**Located:**  
New Hampton,  
Iowa

**Enrollment:**  
200

**Website:**  
[www.stjosephcommunityschool.com](http://www.stjosephcommunityschool.com)

**Train your staff to present choices and prompt students to try foods.** Sometimes all a student needs is a little encouragement to try a new food or add another vegetable to a self-selected salad. Your staff’s suggestions for adding certain foods to trays/plates can greatly affect what students try and what they eat.

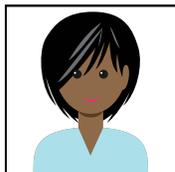
**Find creative ways to use signage to encourage the choices you want students to make.** Signs identify a reimbursable meal for students at the beginning of the service line. Promote the concept of personal choices and what *they can have* rather than focusing on what they can’t have. For example, “How many colors can you put in *your* signature salad?” may spur a confetti creation!

Connecting to your student customers with varied, attractive, healthy, and flavorful foods increases the likelihood that they will participate in the school nutrition program. If the meal service and food presentation do not meet the expectations of today’s student customers, they will choose other options over school meals. Maintaining a strong customer base can make the difference between financial success and failure for the school nutrition program. The school nutrition program, from menus to daily meal service, must be customer focused!

## Menu Chat

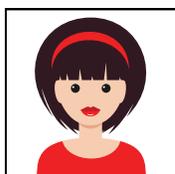


## Hi fellow menu planners!



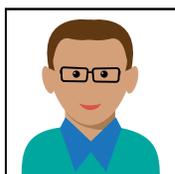
Sandra

I am looking for ideas for new lunch items and ways to get my students to try them. Any ideas you can share?



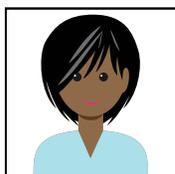
Lin

I am amazed at how food preferences can vary within our district. At one school, fish tacos are the top item; at another, we sell half the amount. I pay attention to local food choices throughout our district and often consider menu ideas from neighborhood restaurants.



Dylan

We “preview and review” our new menu items by offering just a taste and asking students to vote if they would choose the item at lunch in the future.



Sandra

**THANK YOU**

I can always count on this group to share useful tips! Thanks!

After you have planned your menus and evaluated for variety, take one more step. Review your menus to ensure they meet all meal patterns. Note, the meal patterns are designed to help you meet the dietary specifications.

### EVALUATING FOR COMPONENT REQUIREMENTS

Check your menus one final time for program compliance. Planned menus must provide all of the meal patterns' required components in the daily minimum and weekly minimum serving totals.



**Verify your menus meet requirements by checking meal components one at a time, and the complete menu 1 day at a time, including the weekly totals. You will use the Food**

**Buying Guide for Child Nutrition Programs (FBG) (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>), CN labels, PFS, and your standardized recipes as verification tools.**

Modify your menus as needed to meet any crediting requirements. It is possible that after reviewing for variety, a necessary menu change may create a crediting issue. For example, if you noticed that a menu was too tan/orange and substituted green beans for diced carrots, double-check that your menus meet the weekly total for red/orange vegetables. If not, consider making a change elsewhere. For example, change the fruit from peaches to strawberries.

After you are sure all meal components are correct and the meal patterns are met, check your menus to see if they meet dietary specifications for calories, saturated fat, and sodium over a week's time, and that all foods contain 0 grams (<0.5 grams) *trans* fat per serving.

### CHECKING FOR DIETARY SPECIFICATIONS

In chapter 2, the meal components, meal patterns, and dietary specifications were presented. The chapter highlights a prominent feature of the meal patterns: they are designed for success.

If you follow the meal patterns closely and make wise choices, your menus are more likely to meet the dietary specifications than if you do not do so. Here is why: fruits and vegetables are naturally low in calories, sodium, and saturated fat, and have no *trans* fats. Because you provide plenty of fat-free and 1% (low-fat) milk, fruits, vegetables, and whole grains, your menus take advantage of the combined nutrient profile of these foods. When you choose fresh, frozen, or low-sodium canned vegetables, your menus are based on foods that help meet the requirements. By carefully choosing these foods, the menu items that may have more calories, saturated fat, or sodium will balance into your weekly menus.

Use the strategies presented in chapter 2 to guide your menu planning for calories, saturated fat, and sodium. Check all product labels to assure each states zero (<0.5) grams *trans* fat per serving. Use Chart 11 from chapter 2 to evaluate commercial products. This chart presents a handy rule of thumb to assess how an entree or recipe will fit into the week's average for saturated fat. Follow these tips to keep calories, saturated fat, and sodium within the required limits:

#### Calories

- Offer food items from each meal component with few or no calories from added fats and sugars.
- Prepare lean and low-fat M/MA foods with as little added oil/fat as possible.
- Limit the frequency and portions of any desserts and non-creditable food items.



## Menu Checklist for Component Crediting

Use this checklist to verify you meet the component crediting requirements for meal patterns.

MEAL COMPONENT CATEGORY	LUNCH	BREAKFAST
<b>Fluid Milk</b>		
1. Provide 1 cup (8 fl oz) serving size for all grade groups.		
2. Include at least two choices at each meal, lunch and breakfast.		
3. Choose from unflavored or flavored fat-free and 1% (low-fat) milk only. Unflavored milk must be offered at each meal service.		
4. Follow the guidance on milk substitutions when these options are offered to students.		
<b>Fruits</b>		
1. At lunch, provide $\frac{1}{2}$ cup daily in grades K–5 and 6–8, and 1 cup daily in grades 9–12.		
2. At breakfast, provide 1 cup daily for all grade groups.		
3. Credit dried fruits at twice the volume served (for example, $\frac{1}{8}$ cup credits as $\frac{1}{4}$ cup).		
4. Limit pasteurized, 100% fruit juice to half or less of the fruits component weekly, including fruits credited in smoothies.		
<b>Vegetables</b>		
1. At lunch, provide $\frac{3}{4}$ cup daily in grades K–5, 6–8, and 1 cup daily in grades 9–12.		
2. Meet subgroup weekly requirements across menu week.		
3. Credit raw leafy greens at half the volume served.		
4. Credit concentrated tomato products according to FBG, 1 Tbsp paste as $\frac{1}{4}$ cup; 2 Tbsp puree as $\frac{1}{4}$ cup red/orange subgroup.		
5. Credit beans and peas (legumes) as legumes vegetable subgroup or as M/MA, but not both for the same menu item.		
6. Limit pasteurized, 100% vegetable juice to half or less of the vegetables component weekly, including vegetables credited in smoothies.		
7. Follow substitution guidance if crediting vegetables toward the required fruits component <b>at breakfast only</b> .		

MEAL COMPONENT CATEGORY	LUNCH	BREAKFAST
<b>Grains</b>		
1. Determine that at least 80 percent of weekly offered grains are whole grain-rich and remaining items are made with enriched grains.		
2. Meet daily minimums for each grade group and meal.		
3. Meet weekly minimums for each grade group.		
4. Limit grain-based desserts to 2 oz eq or less <b>weekly</b> for all grade groups at lunch.		
5. Verify that baked goods served at breakfast are allowed items as designated in Exhibit A: Grain Requirements for Child Nutrition Programs – Ounce Equivalents from Groups B-F.		
<b>Meats/Meat Alternates</b>		
1. Meet daily minimums for each grade group at lunch.		
2. Meet weekly minimums for each grade group at lunch.		
3. Credit nuts/seeds for up to half the M/MA requirement.		
4. Credit beans and peas (legumes) as vegetables or M/MA, but not both for the same menu item.		
5. Follow substitution guidance if crediting M/MA toward the required weekly grains component at breakfast.		
<b>Other Crediting Checks and Concerns</b>		
1. Verify that creditable foods meet USDA’s definition of “recognizable” for crediting purposes.		
2. Verify smoothies follow crediting criteria for milk, yogurt, fruits, and vegetables.		
3. Verify crediting amounts for products in menus match current CN labels, Product Formulation Statements (PFS), and USDA Foods Product Information Sheets.		
4. Verify crediting amounts in menus match current standardized recipes.		
5. Verify all foods served in NSLP and SBP are labeled as zero (<0.5) grams <i>trans</i> fat per serving.		
6. Verify that free potable water is available at lunch and breakfast.		

### Saturated Fat and *Trans* Fat

- Vary your M/MA choices and use the portion size guidance.
- Balance meat- and cheese-containing entrees with fish and plant-based meat alternates.
- Use oils in food preparation rather than solid fats (for example, butter, lard, shortening, margarine).
- Use only products labeled zero (<0.5) grams *trans* fat per serving.

### Sodium

- Evaluate your standardized recipes or explore new recipes to see where gradual changes can lower sodium. Review your products for sodium content; identify new items with reduced sodium content.
- Select more USDA Foods, which offer lower sodium choices for schools.
- Consider adding a “flavor station” in your cafeteria where students can add herbs and spices (without added sodium) to their own taste.
- Check with your food vendors on a regular basis to identify lower sodium foods coming onto the market. Manufacturers are producing more foods with reduced-sodium levels for schools.

If you offer multiple service lines or more than one choice for the main dish, you need to consider which choices may be more popular than others. Your planning should take into account student choice patterns. This approach will provide an accurate picture of your menu’s overall nutrition profile.

For example, a menu features a chef salad entree and sausage pizza as competing choices. Your past records show 80 percent of the students selected the pizza. You need to consider that your weekly averages will reflect more of the nutrition profile of the pizza than the salad. A nutrient analysis weights the values for the pizza so that 80 percent of the analysis reflects that choice.

### Evaluating Your Menus for Nutrition Goals

Several methods are available for evaluating your menus for nutrition goals. USDA-approved computer software, USDA Certification of Compliance Worksheets, and an assessment tool are three choices that use different technology. Choose one of these or another method that best fits your school needs and resources.

#### Computer Software

If you use menu planning software, a module for nutrient analysis is often an available option. Make sure you are using the most recent version of software that is USDA-approved. You will also want to follow USDA protocols for nutrient analysis. The USDA’s *Nutrient Analysis Protocols: How to Analyze Menus for USDA’s School Meals Programs* (<https://www.fns.usda.gov/tn/Nutrient-Analysis-Protocols-Manual>) covers the key concepts for an accurate analysis. Even if you do not perform nutrient analyses, you may benefit from reading selected chapters in this resource.

Remember, nutrient analysis of menus by the school food authority (SFA) is not required. However, many school districts choose to use this tool as a program management option. If you decide to perform nutrient analyses on menus, an accurate process is critical. Follow the protocols to achieve an accurate nutrition analysis.

#### Certification of Compliance Worksheets

Every school program that has been certified for the performance-based reimbursement has completed a set of USDA or USDA-approved Certification of Compliance Worksheets (Menu Worksheets) (<https://www.fns.usda.gov/school-meals/certification-compliance>). Depending on how long you have been planning menus, you may or may not be familiar with this tool. The Menu Worksheets demonstrate that menus meet components and dietary specifications to qualify for an additional performance-based reimbursement. You can use the Menu Worksheets as a menu planning tool and as a way to evaluate your menus for nutrition goals. Use the simplified nutrient assessment tab to enter your information. For the most accurate assessment, be sure to enter planned amounts of each choice, such as the salad and pizza example above.

## Salt and Sodium: Tips to Help You Cut Back

Use these helpful tips, adapted from *Recipes for Healthy Kids Cookbook for Schools* (<https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>) to reduce sodium.



### Focus on fresh vs. processed foods

Most of the sodium Americans eat is found in processed foods. Create menus that focus on fresh foods which are generally lower in sodium. Use highly processed foods less often and in smaller portions, especially cheesy foods, such as pizza; cured meats, such as bacon, sausage, hot dogs, and deli/luncheon meats; and ready-to-eat foods, like canned chili, ravioli, and soups.

### Menu site-prepared foods

Cook more often from scratch, where you are in control of what's in the food. Preparing your own foods allows you to limit the amount of salt in them.

Roast vegetables to bring out the flavor. Add herbs and spices during the roasting process in order to enhance flavor.

Encourage children to select and try veggies and fruits by calling them fun names or offering them in creative and appealing ways; they are naturally low in sodium.

### Tempt those taste buds

Cut back on salt little by little, and play up the natural tastes of various foods. Use spices, herbs, garlic, vinegar, or lemon juice to season foods, or use no-salt seasoning mixes. Consider offering a seasoning station or "flavor station" with shakers of herbs and spices so students can shake on a personal preference.

### Read the label

Read the Nutrition Facts label and the ingredients statement to find packaged and canned foods lower in sodium. Look for foods labeled "low sodium," "reduced sodium," or "no salt added." Maximize your use of USDA Foods, which offer a variety of lower sodium options.

### Pay attention to condiments

Foods like soy sauce, ketchup, teriyaki sauce, pickles, olives, salad dressings, and seasoning packets are high in sodium. Choose low-sodium soy sauce and ketchup. Garnish with a carrot ribbon or celery stick fan instead of olives or pickles. Make your own creamy salad dressings using Greek yogurt and herbs.



## Menu Planning Tool – USDA Certification of Compliance Worksheets

School nutrition professionals are resourceful. You are skilled at getting the most from any resource or tool. The USDA Certification of Compliance Worksheets (Menu Worksheets) are a multiple-use resource. Every school food authority (SFA) is required to submit Menu Worksheets for a week's worth of menus, breakfast and lunch, to qualify for additional performance-based reimbursement. Access the Menu Worksheets along with answers to common questions at <https://www.fns.usda.gov/school-meals/certification-compliance>.

These Menu Worksheets include step-by-step instructions and are helpful menu planning tools for the weeks of menus you are not required to submit. You can enter each week of a cycle menu on a separate worksheet. When products or menu items change, the updates are quick. If several of your menu items are constant from cycle to cycle, you can create seasonal cycle menus by:

- Copying worksheets
- Renaming the file (be sure to save!)
- Updating menu items and component contributions
- Updating vegetable subgroup contributions
- Updating planned amounts of main dish items
- Updating nutrient data for new menu items.

The simplified nutrient analysis section of the worksheet helps you know your menus meet the dietary specifications. If the calories, saturated fat, or sodium exceed the required limits in your menu week, make a few menu changes and recheck. You may only need a couple of changes to your menu to be within required dietary specifications ranges. Be sure to use either the Menu Worksheets developed by USDA or a USDA-approved software program.

For additional resources on this topic, please visit the *Menus that Move* website at <http://education.ohio.gov/Topics/Student-Supports/Food-and-Nutrition/Resources-and-Tools-for-Food-and-Nutrition/Menus-that-Move>. It features resources developed by Ohio school nutritional professionals, to include the following:

- Four seasonal menus for grade K–8 and 9–12
- Completed Certification of Compliance Menu Worksheets for each menu week
- Standardized, tested recipes and more.

## Menu Chat



### Hello friends!



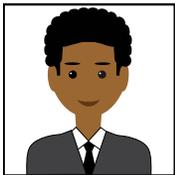
Lin

I am revising many of our cycle menus. How do you make sure you meet the dietary specifications?



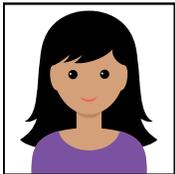
Megan

I use existing resources to help monitor menu changes and requirements. For example, even though we do not have to fill out a USDA Certification of Compliance Worksheet (Menu Planning Tool for Certification) for every menu week, I like using this tool to help plan menus that meet the requirements. I can also use it to add in a new menu day and test how it fits in a menu week. If it fits, great! If not, I try it in another week.



Tyler

We use a “grams of saturated fat per calorie level chart” (similar to chart 11 in chapter 2) to help guide our menu planning. For example, in our high school menus, I use 8 grams of saturated fat as my daily limit, because it corresponds with 750 calories in the meal. I evaluate main dish options and know if any one exceeds 7 grams, the menu must be balanced with another day that has an entree with a lower saturated fat content. It is easier for me to look at recipes and product labels for the grams of saturated fat than to calculate the total percentage for every menu week to see if it is below 10 percent. Based on our students’ choices of our menu, I estimate that we average 1 gram of saturated fat from the other component items. That is because we use oils in food preparation, in the smallest amounts possible, and the rest of the menu features foods naturally low or free of saturated fats.



Elena

Our State agency staff members are very helpful. I ask for their assistance if I am not sure if I have planned the menus correctly. After all, we have a shared goal of serving healthy food to students.



Lin

### **THANK YOU**

Thanks for the tips and the reminder to check out the available tools and resources when we revise menus.

### Dietary Specifications Assessment Tool

The Dietary Specifications Assessment Tool (Appendix 3.C) is used in a targeted menu review during an Administrative Review (AR). You can also use the assessment tool to help guide menu planning. Some questions/statements directly assess specific menu options, such as types of milk served. Others provide a way to evaluate how overall food choices fit with the dietary specifications. For example, one question addresses how often your recipes substitute herbs and spices for salt. If your response is “never” or “some,” your menus may exceed the sodium requirement. Look for ways to change menus and recipes so that your response become “most” or “always.”

After learning the many aspects of menu development, it is easy to see how important training is to your program. Once you have finalized your menus, it is time to make sure your staff understands your plan.

### STAFF TRAINING

Implementing your menu requires well-trained staff. They must understand your menu from preparation through service.



***In addition, your SFA must be in compliance with Professional Standards annual training requirements and will need to demonstrate***

***compliance with them during an AR. The Guide to Professional Standards for School Nutrition Programs (<https://www.fns.usda.gov/tn/guide-professional-standards-school-nutrition-programs>) will provide the necessary information for meeting the training standards for all school nutrition professionals.***

And it is just as important to train and empower your staff to encourage students to select healthful meals. Students react differently to, “We have

ginger-sauced carrots or a raw veggie cup today, would you like one or both?” compared to “You have to have this vegetable on your tray—you can’t leave the line without it.” One approach is likely to result in the student selecting and eating the vegetable; the other may increase plate waste.

To learn more about ways to encourage students to voluntarily choose healthy meals, be sure to read chapter 7; it focuses on marketing your school nutrition program.

Of course, you must train your staff to recognize reimbursable meals. The ICN has training programs on reimbursable meals, including Meal Pattern Training Resources for lunch and breakfast.

The USDA Professional Standards Training Database offers many low-cost or free trainings: <https://professionalstandards.fns.usda.gov/>. Track your progress toward meeting annual requirements using the Professional Standards Training Tracker Tool: <https://www.fns.usda.gov/tn/professional-standards-training-tracker-tool/>.

### CONCLUSION

In successfully managed school lunch or breakfast programs, planning is crucial. Compliance with Federal program requirements as well as the nutritional value of meals depends on careful menu development. Beyond that, menu writing influences every aspect of the school nutrition operation, from procurement and preparation of foods to the education and participation of students.

Let’s review key points in this chapter:

- When developing menus:
  - Start with grade group meal patterns for each menu.
  - Consider how Offer Versus Serve (OVS) or Served affects your menus.
  - Look at records from past menus and ideas from new sources.
  - Use menu templates with built-in checks for program requirements.
  - Use cycle menus.

- Start well in advance to take advantage of tools and resources, and ensure enough time to write solicitation (bid) specifications.
- Build menus by meal components, starting with the main dish.
- Variety is a central aspect of successful menu development, so evaluate your daily and weekly meals, and cycle menus, for variety.
- After you plan and evaluate your menus, check one final time for program compliance using software, the USDA Certification of Compliance Worksheets, an assessment checklist, or other appropriate method.
- Your staff should be trained to:
  - Understand your menu from preparation through service.
  - Encourage students to voluntarily choose healthy meals.
  - Recognize a reimbursable meal.

Once your menu is planned, it is time to move on to production and service. In chapter 4, the essential written tools for meal production are explained: production records, standardized recipes, and a food safety program with standard operating procedures based on the Hazard Analysis and Critical Control Point (HACCP) principles.

**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**

1. What are three advantages of using cycle menus?
2. What strategies could you use to increase students selecting fruits and/or vegetables at lunch?
3. A menu offering baked fish, mashed potatoes, applesauce, nonfat vanilla pudding, and choice of unflavored milk (fat-free or low-fat) is lacking variety in what ways?
4. What are three reasons salad bars need trained adult supervision?
5. To encourage students to choose unflavored milk over flavored milk, how would you arrange the milk in your serving line?

**If you got the answers right, great job! You are ready for the next chapter. If you missed any, review that section of the chapter before moving on to the next chapter.**



## LINKS TO ADDITIONAL RESOURCES

Child Nutrition Programs: Transitional Standards for Milk, Whole Grains, and Sodium, Final rule. 7CFR § 210, 215, 220, 226. February 7, 2022 (<https://www.govinfo.gov/content/pkg/FR-2022-02-07/pdf/2022-02327.pdf>).

Institute of Child Nutrition, Child Nutrition Recipe Box, University, MS (<https://theicn.org/cnrb>).

Institute of Child Nutrition, Handling Fresh Produce on Salad Bars, University, MS (<https://theicn.org/icn-resources-a-z/produce-safety>).

Institute of Child Nutrition, Meal Pattern Training Resources (<https://theicn.org/>).

Institute of Child Nutrition, Introduction to School Nutrition Leadership, University, MS (<https://theicn.org/icn-resources-a-z/introduction-to-school-nutrition-leadership>).

Iowa Department of Education, Iowa Gold Star Cycle Menus ([https://educateiowa.gov/sites/default/files/documents/1314\\_np\\_lt\\_goldstar\\_cyclemenu.pdf](https://educateiowa.gov/sites/default/files/documents/1314_np_lt_goldstar_cyclemenu.pdf)).

Kansas Department of Education, Healthier Kansas, 8-Week Lunch Cycle and 6-Week Breakfast Cycle (<https://cnw.ksde.org/>).

Nutrition Standards in the National School Lunch and School Breakfast Programs, Final rule. 7CFR § 210.10(d)(3). (2012) – 77 Fed. Reg. January 26, 2012, 4146 (<https://www.govinfo.gov/content/pkg/FR-2012-01-26/pdf/2012-1010.pdf>).

Ohio Department of Education, Menus that Move (<http://education.ohio.gov/Topics/Other-Resources/Food-and-Nutrition/Resources-and-Tools-for-Food-and-Nutrition/Menus-that-Move>).

U.S. Department of Agriculture, Food and Nutrition Service, Certification of Compliance (<https://www.fns.usda.gov/school-meals/certification-compliance>).

U.S. Department of Agriculture, Food and Nutrition Service, Farm to School Program (<https://www.fns.usda.gov/cfs>).

U.S. Department of Agriculture, Food and Nutrition Service, Food Buying Guide for Child Nutrition Programs, Alexandria, VA (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>).

U.S. Department of Agriculture, Food and Nutrition Service, The Guide to Professional Standards for School Nutrition Programs, Alexandria, VA ([https://fns.usda.gov/sites/default/files/resource-files/Professional\\_Standards\\_Guide.pdf](https://fns.usda.gov/sites/default/files/resource-files/Professional_Standards_Guide.pdf)).

U.S. Department of Agriculture, Food and Nutrition Service, Healthier School Day, Tools for Schools: Focusing on Smart Snacks (<https://www.fns.usda.gov/cn/tools-schools-focusing-smart-snacks>).

U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual (please contact your State agency for the most current version).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition, Recipes for Healthy Kids Cookbook for Schools, Alexandria, VA (<https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>).

U.S. Department of Agriculture, Food and Nutrition Service, Whole Grain Resource for the National School Lunch and School Breakfast Programs, Alexandria, VA (<https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-breakfast-programs>).

Vermont Farm to School Network, New School Cuisine Cookbook: Nutritious and Seasonal Recipes for School Cooks by School Cooks (<https://vtfeed.org/resources/new-school-cuisine-nutritious-and-seasonal-recipes-school-cooks-school-cooks>).



**APPENDIX ITEMS**

**Appendix 3.A** Sample Menu Planning Templates

**Appendix 3.B** Smart Snack Guidelines and a la carte items

**Appendix 3.C** Dietary Specifications Assessment Tool



# CH.4

## Meal Preparation Documentation



# Meal Preparation Documentation

## CH.4

*Your students see a beautiful serving line with consistently appealing foods. They do not know that behind the scenes, recordkeeping is a critical part of your successful school nutrition operation. Documentation helps you plan from day to day, communicates your plans to staff, and ensures quality control and customer satisfaction. Records also provide a valuable written history for future reference. They help you spot trends, evaluate what works best with your customers, forecast demand, and decide what changes need to be made. Written procedures and daily monitoring logs make food safety second nature to staff. In addition, during an Administrative Review (AR), your records will be ready for review.*

### **In this chapter, you will learn about:**

- Production records:
  - Why they are a valuable tool to your school nutrition program
  - Role of production records in the AR
  - Required information on all production records
  - Two-step process for completing a production record
- Standardized recipes:
  - Why they are vital in school nutrition programs
  - Role of standardized recipes in the AR
  - Required information on all standardized recipes
  - Three phases to develop standardized recipes
- Hazard Analysis and Critical Control Point (HACCP)-based food safety program:
  - Food safety standard operating procedures (SOPs)
  - Staff training and Active Managerial Control (AMC)
  - Process Approach to HACCP.

### **INTRODUCTION**

In chapters 2 and 3, you learned steps to create nutritious meals. Your menus meet meal component and serving amount requirements, and dietary specifications for each grade group's meal pattern. Your next step is to develop written plans and document meal production and service. Maintaining production records and standardized recipes are critical to your school nutrition program's success. Written food safety SOPs give your staff guides to follow for daily work habits while preparing and serving foods. These SOPs include HACCP-based control points and critical limits to reduce the risk of foodborne illnesses.

Production records are a communication tool for everyone involved with school meals, from menu development to production and service. Federal guidelines require that all schools participating in the school nutrition programs keep food production records for the meals they produce. These records demonstrate how the meals provide the required meal components and help you plan day to day.

Standardized recipes are companion tools to your production records. Recipes provide the production staff with everything they need to know to produce wholesome, delicious food for the school nutrition program. Because the recipes have been tested, the result is known and can be duplicated over and over. Standardized recipes ensure quality and nutritional consistency. They are also useful in procurement as well as inventory and labor management. Together, production records and standardized recipes confirm that menus meet the National School Lunch Program (NSLP) and School Breakfast Program (SBP) requirements for reimbursable meals.

Providing your staff with well-designed production records and standardized recipes strengthens your culture of food safety. Production records and standardized recipes are supported by food safety SOPs that direct how your team routinely prepares, holds, serves, and stores food. Your HACCP-based program guides all food production activities and reduces the risk of a foodborne illness.

In this chapter, you will see how production records are a communication tool and a historical record. Standardized recipes convey detailed production steps. HACCP-based written SOPs guide all steps of production and service; assuring safe food practices are followed. Upon completion of this chapter, you will understand the value of these tools.

## PRODUCTION RECORDS

Maintaining production records is an important responsibility of your school nutrition program. You must document that meals served in NSLP and SBP are reimbursable meals. Your school nutrition team shares this responsibility with you through completing the production record.

Production records document all aspects of meal production, and vary in format, but any successful record achieves two things. First, *it gives the staff information*: what foods and recipes to use, what quantities to prepare, and what amounts to portion. Second, *it enables staff to document information*, such as actual quantities prepared and total meals

(and a la carte items) served. Production records also have a role in food safety as they can be useful tools for traceback during food recalls.

Production records provide historical information that you may use to forecast trends, identify student preferences, and plan future menus. Production records are reviewed during the AR. They help verify that your meal service meets the NSLP and SBP requirements for reimbursable meals.

Reviewers will be looking for specific information on your completed production records. The Anatomy of a Production Record shows a sample completed production record. Refer to this information as you read the next section about the required aspects of a production record.

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***Production records provide historical information that you may use to forecast trends, identify student preferences, and plan future menus. Production records are reviewed during the AR. They help verify that your meal service meets the NSLP and SBP requirements for reimbursable meals.***

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### ***Production Records and Standardized Recipes During the Administrative Review***

The State agency (SA) must evaluate production records to ensure the following:

- Records include all information necessary to support the claiming of reimbursable meals and any additional SA requirements (i.e., all menu items are listed and all required meal components are offered);
- Records are used for proper planning (e.g., evaluate for consumption and leftovers);
- Records document that food prepared is creditable for the total number of reimbursable meals offered and served;
- Records document a la carte, adult, and/or other nonreimbursable meals, including number of portions for each of these food items;
- Records document that fluid milk, vegetable subgroup, and whole grain-rich requirements are met;
- Records document weekly quantity requirements for fluid milk, vegetables, fruits, grains, and meats/meat alternates; and
- Records align with standardized recipes (e.g., if chicken salad sandwich is on the menu but mayonnaise is not listed on the production records, the SA may examine standardized recipes for additional information).

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual.

SAMPLE

# Daily Menu Production Record – Food-Based Menu Planning

1 Name of school/site Harvey Elementary School  
 2 Grade Group K- 5  
 3 Date January 14, 2022  
 4 Menu Grilled cheese sandwich or Chicken nuggets & Rice pilaf, Broccoli, Cherry tomatoes, Celery sticks, Fruit cocktail, Orange wedges, Milk: assorted fat-free & 1%

5  Breakfast  
 Lunch  
 OVS  
 Preplated (served)

**Reimbursable meals**  
 6 Number of student meals planned (projected): 54  
 7 Number of student meals offered (prepared): 50  
 8 Number of student meals selected (served): 48

**Nonreimbursable Meals**  
 9 Number of meals planned (projected): 5  
 10 Number of meals offered (prepared): 5  
 11 Number of meals selected (served): 4

R = Reimbursable NR = Nonreimbursable T = Total

12 Menu/food items	14 Recipe ID/product ID	15 Portion Size	Component contributions per portion size					21 Planned (projected) Servings			22 Planned (projected) quantity of food (in purchase units)	23 Actual number servings (offered) prepared			24 Actual number servings selected (served)			25 Substitutions, leftovers, and notes
			16 Meats/meat alternates	17 Grains	18 Fruits	19 Vegetables	20 Milk	R	NR	T		R	NR	T	R	NR	T	
			Grilled cheese sandwich	R# 32	1 ea	2 oz eq	2 oz eq WGR							48 sl WG bread 3 lbs cheese	20		20	
XYZ Chicken Nuggets w/WG, 3.97 oz eq = 2 oz eq M/MA, 1 oz eq grains CN #123456	R# 4203	6 ea	2 oz eq	1 oz eq WGR						8.7 lbs	30	5	35	28	4	32	3 servings leftover, discarded	
Brown rice pilaf, USDA recipe	R# B22	#8 scoop		1 oz eq WGR						1.25 gallons	32	5	37	31	3	34	1.5 cups leftover, discarded	
Steamed broccoli florets (RTU), dark green vegetable	R# 15	2 oz spoodle					1/4 c			2 lbs	50	5	55	49	4	53	0.5 cup leftover; chilled and refrigerated for use in soup tomorrow	
Cherry tomato (3 ea), red/orange vegetable, Celery sticks (3 ea, RTU), other vegetable	R# 18	1/4 c					1/4 c			2.5 lbs	30		30	24		24	1.5 cups cherry tomatoes & 1 cup celery leftover; bagged & refrigerated for use in soup tomorrow	
Fruit cocktail in light syrup, drained, USDA Foods <i>Diced peaches, drained</i>	R# 3	4 oz spoodle					1/2 c			2.25 #10 cans	35	3	38	25	3	28	Substituted peaches, 5 cups leftover; refrigerated for use in breakfast tomorrow	
Orange wedges (138 count)	R# 5	4 oz spoodle					1/2 c			5.5 lbs	15	3	18	35	2	37	No leftovers; made 10 more servings, 3 more lbs used	
Extra: Ranch dressing 1/2 oz packets	P# 1514	1 ea								54 ea	54		54	50		45	5 leftover, returned to inventory	
13 Milk by type and flavor:	Item#																	
fat-free (unflavored):	501	1 ea					1 cup			5	5	5	5	5	5	5	No leftovers	
fat-free (chocolate):	502	1 ea					1 cup			30	30	30	28	28	28	28		
1% unflavored:	503	1 ea					1 cup			10	10	10	10	10	10	10		

Details provided on product CN label

RTU: ready-to-use, cleaned, trimmed florets

Projected quantity based on FBG yield for drained fruit, 2.25 #10 cans

Projected quantity based on FBG yield for 138 count oranges, 5.5 lbs for 18 1/2 c portions

26 Ms. Manager 1/14/22  
 verifier signature date

## Anatomy of a Production Record

You may use any production record format you wish as long as it includes certain key items. These items are summarized and then explained in more detail below.

### BASIC INFORMATION

- 1 Name of school/site
- 2 Grade group
- 3 Date
- 4 Menu
- 5 Menu type (lunch or breakfast) and Offer Versus Serve (OVS) or Preplated (served)

### REIMBURSABLE MEALS

- 6 Planned (projected) number of student meals; provides an estimate of planned (projected) student meals for the specified grade group
- 7 Actual number of student meals offered (prepared); provides the total number of student meals offered (prepared) for the specified grade group
- 8 Actual number of student meals selected (served); provides the total number of student meals selected (served) for the specified grade group

### NONREIMBURSABLE MEALS

- 9 Planned (projected) number of nonreimbursable meals—the number of staff and guests
- 10 Offered (prepared) number of nonreimbursable meals—the number of staff and guests
- 11 Actual number of nonreimbursable meals selected (served); provides the total number of nonreimbursable meals selected (served) for the specified school/site

### ALL MENU ITEMS LISTED

- 12 Menu/food items—all food item choices included on the specified grade group's menu, such as main entrees, vegetable subgroups, fruit, milk, dessert, condiments, and substitutions. For each food item, include product information such as manufacturer item name and code number, USDA Foods information, or specific information to guide preparation
- 13 Planned (projected), offered (prepared), and selected (served) number of milk by type—fat-free unflavored, fat-free chocolate or other flavors, 1% low-fat unflavored, 1% low-fat chocolate or other flavors

### RECIPE/PRODUCT NUMBER

- 14 Recipe ID/product ID number—standardized recipe number or product ID number

### PORTION SIZE

- 15 Portion size for the specified grade group—specific unit of measure: scoop number, measuring cup amount, each, ladle or spoodle size, etc.

### REIMBURSABLE MEAL COMPONENTS PROVIDED BY PORTION SIZE

- 16 Meats/meat alternates in ounce equivalent (oz eq)
- 17 Grains in oz eq (WGR indicates whole grain-rich)
- 18 Fruits—portion offered in volume (½ cup in sample)
- 19 Vegetables—portion offered in volume (¼ cup in sample), note that subgroup is identified in column #12
- 20 Milk—portion offered in volume (1 cup in sample)

### MEALS PLANNED (PROJECTED), OFFERED (PREPARED), SELECTED (SERVED) AND LEFTOVER

- 21 Planned (projected) number of servings to prepare—provided by menu planner using forecasting tools (reimbursable and nonreimbursable combined)
- 22 Planned (projected) quantity of food to use in purchase units—forecasted from past production, standardized recipes and the *Food Buying Guide for Child Nutrition Programs* (FBG). Adjust on day-of-service, if needed
- 23 Actual number of servings offered (prepared)—provides total number of servings prepared with any changes from planned (projected) amounts noted, as needed
- 24 Actual number of servings selected (served)—provides total number of servings selected (served) for each food item on the menu; provides information for forecasting future meal preparation
- 25 Substitutions and leftovers—any substitutions for the planned menu must be recorded. Record the amount of leftovers of each item and planned use (*examples: chilled and refrigerated for use in future meal, freeze for future use in cycle menu, or discard*)

### VERIFIER SIGNATURE AND DATE

- 26 Person in charge of site reviews, verifies, signs and dates the production record, and files for future reference. Your State agency may require signed production records.

### OTHER DETAILS YOU MAY NEED OR WANT TO RECORD ARE:

- Food preparation and holding temperatures
- Specific information of value for preparation, service, and future forecasting, such as weather-related school closures, field trips, etc.
- FBG details—source of calculations for purchase units required for total servings planned
- Additional required information by your State agency or school program

## Two-Step Process for Completing Production Records

Production records are completed in two distinct steps. This first step includes listing preproduction elements needed. The second step is production information added the day of meal service.

### Step One: Preproduction Information

You can fill in preproduction information days or weeks in advance. Some of the key items are constant and may be preprinted on the record; software can automate this process. Information noted in the first phase includes:

- Menu type (breakfast or lunch) and preplated (served) or OVS
- Meal site
- Date
- Grade group(s)
- Menu items (food items or recipes), including identification numbers
- Planned (projected) quantity of food (in purchase units)
- Portion amounts (serving sizes) and planned (projected) total servings for each grade group, adults and a la carte
- Component contribution for each menu item.

Each item on a production record provides useful information. Let's look at some preproduction elements in more detail:

**Grade group(s):** Identify the grade group or blended grade group (for example, K–8, K–12). You may use one production record for more than one grade group. However, you need to include the serving size for each grade group, if serving sizes are different.

**Name (description) of menu items used:** List all food items and the form used (fresh, frozen, canned, etc.). This is the first step in effectively communicating the menu to your staff. Accurately list all food items, including condiments, if not included as recipe ingredients.

**Food item or recipe identification number for each menu item:** Indicate the menu's recipes and food products with identification (ID) numbers. Specific ID numbers help distinguish between similar food items or recipes.

**Portion amount (portion size, serving size):** List portion amounts and include the serving utensil. If used, include the size of the ladle, scoop, or spoodle. Your staff will then know the correct portion amounts of each food item. The planned (projected) and offered (prepared) portion amounts should be the same. Note the offered (prepared) portion amount, if different from the planned (projected) amount. If you adjust portion amounts for different grade groups, list each grade group portion on a separate line. See Appendix 4.B for a handy reference to measuring portions.

**Component contributions:** Note the corresponding component contribution for the portion amount for each menu item. This handy check helps to verify meal pattern and crediting requirements.

**Total planned (projected) servings:** Forecast the number of servings needed for each menu item. Projecting the number of servings helps determine how much food to order, how much time to allot for preparation, and which equipment to use. For menus with choices between several different selections or with OVS, rely on past production records to help determine the quantity to prepare. Use these past records to help accurately forecast all menu planning options.

**Planned (projected) quantity of food to use in purchase units:** Forecast from past production records, standardized recipes, and the FBG. Adjust on the day-of-service, if needed.

### Step Two: Day-of-Service Production Information

The second step of completing a production record happens on the day-of-service. The staff completes the remaining sections during meal production and service, including:

- Quantity of food in purchase units and actual number of servings offered (prepared), if different from the planned (projected)

- Actual number of reimbursable meals offered (prepared) by grade group, if different from the planned (projected amount)
- Actual number of nonreimbursable meals offered (prepared), if different from the planned (projected amount)
- Total number of meals offered (prepared)
- Actual number of reimbursable meals selected (served) by grade group
- Actual number of nonreimbursable meals selected (served)
- Total number of servings selected (served)
- Actual number of a la carte items selected (served), if any
- Actual number of full second reimbursable meals selected (served), if any (breakfast only)
- Any substitutions made and total amount and use of leftovers.

The day-of-service information is valuable for future menu planning as well as future production days with the same menu. The offered (prepared) menu counts and number of servings can be used for the weighted nutrient analysis of your menus.

Now let's look at the day of production elements in more detail:

**Total quantity of food (in purchase units) and actual number of servings offered (prepared)**

Site staff must record the quantity of food actually offered (prepared), if different from planned amount. The offered (prepared) amount may be different than the planned (projected) amount for a variety of reasons. For example, a grade level is away from school on a field trip, or significant absences occur due to illness. Make note of this information; it is helpful for future menu planning. Past production information is combined with the servings offered (prepared) and selected (served) to shape future production needs.

**Actual meals and items offered (prepared):** At the end of service, site staff must record the total amount of each food item offered (prepared). Your team also records the total number of reimbursable meals by grade group, as well as the total number of nonreimbursable meals and a la carte items. *Substitutions and leftovers:* During preparation and service, site staff must record any substitutions

made to the planned (projected) menu. Careful substitutions are especially important for meeting weekly vegetable subgroup requirements or when crediting vegetables toward the fruits requirement at breakfast. At the end of meal service, site staff must record leftover amounts and indicate whether leftovers will be retained for later use or discarded. Tracking the use of leftovers is important in your food safety program. It also helps identify overproduction, thus aiding in food cost management. Refer to current guidance and your State agency on how to credit leftovers.

**Actual meals and items selected (served):** At the end of service, site staff must also record the total amount of each food item selected (served). Your team also records the total number of reimbursable meals by grade group and the total number of nonreimbursable meals and a la carte items sold. For breakfast only, any full second reimbursable meal served to students must be recorded.

You will use the information on actual servings for future menu planning and adjustment. Review planned (projected), offered (prepared), and actual servings selected (served) and note significant trends versus temporary changes due to uncommon events or circumstances that affect participation.

Some records include spaces for recording Critical Control Points (CCPs), temperatures, employee initials, or other information. Some schools use separate logs for this information. Either way, your staff must document CCPs and limits (time and temperature) in writing.

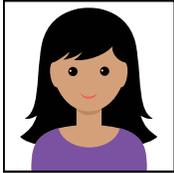
At the end of the meal service, the site manager reviews the production record, verifies the information is accurate and complete, and signs and files it for future reference. Your operation may use more than one production record per day for a meal. For example, a large high school with five different serving stations may have five production records for the salad bar, build-a-sandwich bar, vegetarian, home cooking, and ethnic food lines. An elementary school production record may list salad bar as a line item and use a separate detailed salad bar production record. Listing all of the items of the salad bar on the general production record may not be practical.

Let's see how four different school menu planners use production records.

## Menu Chat



## Hi everyone.



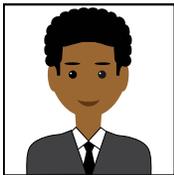
Elena

We are reviewing our production records and trying to figure out the best approach for our schools with two grades groups and fruit and vegetable bars. Do you have an idea to share with us?



Lin

We use a single production record for all grades. Ours is a small district and all the students eat in one cafeteria. A simple approach helps: a single menu with a few choices between fruits and vegetables for everyone and a variety of entree choices for my high school students. I make sure the planned portion sizes are correct for each grade group.



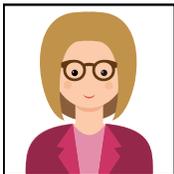
Tyler

A single production record works in our district, too, even though we have different schools. We have a similar menu at all grades; I fill in the portion size for the specific grade group in each building.



Sandra

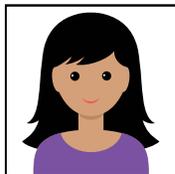
We use multiple production records. We have a large volume production record for our central kitchen. Each school kitchen has its own production record. Due to the number of specialty lines and menu options we offer districtwide, we also find a separate log for recording temperatures for CCPs works best for us. We require our staff to initial the temperature measurements and time notations.



Megan

Our production record for both grade groups includes amounts as purchased and edible portion servings for the fresh fruit and vegetable bar. We prepare for the bar at the beginning of the week and label and date items for the expected day of service. But if the sweet potato sticks are really popular on Monday, we pull from Wednesday's supply to ensure we offer enough red/orange vegetable subgroup on Monday. We either prepare additional sweet potatoes for Wednesday or substitute baby carrots for the red/orange subgroup. Each day's production record is updated accordingly.

## Menu Chat



Elena

**THANKS!**

You have helped me see how each approach is useful. Now I need to assess which is best for our schools.

The production record relays the steps required to prepare the menu. Your food production team uses the record for guidance during preparation and service. Your staff documents actual preparation and service information throughout the day. All members of your production team should understand the importance and use of production record information. Training your staff to use and properly document information on production records is essential.

Now that you have learned about production records, let's take a look at standardized recipes. Standardized recipes communicate serving size and meal component information. They provide preparation, service, and food safety information to guide your school nutrition staff. You will quickly see how important standardized recipes are to daily meal production.

**STANDARDIZED RECIPES**

Consistently producing high-quality food that satisfies your customers and meets requirements for reimbursable meals is not an easy task. To do so, you and your team must know the principles of developing and using standardized recipes. A standardized recipe is 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. You may have a set of standardized recipes at the district level that are further standardized to reflect individual school equipment and other factors.

Schools often use recipes with yields of 50 and 100 servings, or even more. Quantity recipes produce 25 or more servings. You have quantity recipes, but are they standardized? Your quantity recipes become standardized only after adapting them to your school nutrition program.

**Advantages of Standardized Recipes**

Using standardized recipes provides many benefits to school foodservice operations.

- 1. Consistent food quality:** The use of standardized recipes ensures that menu items will be consistent in quality each time they are prepared and served.
- 2. Predictable yield:** The planned number of servings will be produced by using standardized recipes. 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 food is transported from a production kitchen to other serving sites.
- 3. Customer satisfaction:** Well-developed recipes that appeal to students are an important factor in 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.

4. **Consistent nutrient content:** Standardized recipes will ensure that nutritional values per serving are valid and consistent.
5. **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.
6. **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.
7. **Inventory control:** The use of standardized recipes provides predictable information on the quantity of food inventory that will be used each time the recipe is produced.
8. **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 are provided specific directions for preparation in each recipe.
9. **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.
10. **Successful completion of ARs:** Standardized recipes are a documentation source for the 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. Menus, recipes, production records, and the nutrient analysis are to be kept on file for review.

### Information to Include on Standardized Recipes

Your standardized recipe format needs to include the following:

- **Recipe Title and Description:** The recipe should have a title (name) along with a brief description (1–3 sentences) of the recipe.
- **Recipe Category:** Identify the recipe as an entree or side dish.
- **Ingredients:** Include all ingredients used in a recipe. The ingredient name should include the name of the product, product type/form (fresh, frozen, canned), and any preparation technique(s) (peeled, grated, minced, diced). Be sure to indicate size for preparation techniques, such as slicing and dicing (e.g., “½-inch slices” or “¼-inch diced”). List the ingredients in the order they are used when preparing the recipe.
- **Weight/Volume of Each Ingredient:** List the quantity of each ingredient in weight and volume. 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.
- **Units of Measure for Each Ingredient:** Avoid using packaging to describe the amount of a product, such as “1 package.” The packaging is variable, and the size can vary depending on the supplier. The amount of product in a package may vary depending on its’ form. List quantities in the most straightforward unit of measure (e.g., “1 lb 4 oz” instead of “20 oz” or “½ cup” instead of “8 Tbsp.”). Use standard abbreviations for units of measure and a fraction format.
- **Preparation Directions:** List the steps for the preparation of the recipe. This can include information on alternative preparation methods and helpful cooking tips.
- **Cooking Time, Temperature, and Preparation Time:** Include the cooking temperature and cooking time, if appropriate, as well as the amount of time required to prepare the recipe. This includes time for chopping or dicing ingredients, preparing individual servings, placing items on a baking sheet, etc.

- **Serving Size:** Provide the amount of a single portion in volume and/or weight. Give this information in a practical amount, such as ½ cup, one slice, two squares, etc.
- **Recipe Yield:** Provide the amount of the finished or processed product (weight and volume, and number of servings) available at the completion of production.
- **Equipment and Tools Needed:** List the cooking and serving equipment needed to prepare and serve the recipe.
- **Crediting Information:** This statement should identify which meal component(s) the ingredients in the recipe credit toward. If an ingredient may be credited toward more than one meal component, include both crediting statements.
- **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 levels of these dietary components in school meals.
- **Marketing Guide:** 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. More information on the marketing guide can be found in chapter 5.
- **Food Safety Guidelines/Critical Control Points:** 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. As applicable, include information about food allergens or developmental considerations (e.g., choking hazards for young children).

Additional information such as service style, recipe variations, alternative ingredients, optional ingredients, and safety notes such as choking risks and food allergy information may also be included. This is additional information that may be included in the recipe—not directly related to the standardization process but still important information for the recipe user.



### USDA Recipes

USDA standardized recipes are excellent additions to your recipe collection. Look for these resources.

*Recipes for Healthy Kids Cookbook for Schools* (<https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>).

The Institute of Child Nutrition's Child Nutrition Recipe Box (<https://theicn.org/cnrb/>)

**Anatomy of a Standardized Recipe**

Ingredients <b>4</b>		50 Servings <b>5</b>		100 servings <b>5</b>		Directions <b>7</b>
		Weight <b>6</b>	Measure	Weight <b>6</b>	Measure	
Water			1 gal 2 qt		3 gal	1. Boil water.
Brown rice, long-grain, regular, dry		5 lb <b>8</b>	3 qt ½ cup	10 lb <b>8</b>	1 gal 2 ¼ qt	2. Place 2 lb 8 oz brown rice in each steam table pan (12" x 20" x 2 ½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans. 3. Pour water (3 qt per steam table pan) over brown rice. Stir. Cover pans tightly.
						4. Bake: Conventional oven: 350 °F for 40 minutes <b>10</b> Convection oven: 325 °F for 40 minutes 5. Remove from oven and let stand covered for 5 minutes.
*Fresh bok choy, sliced ¼"		3 lb 6 oz	1 gal	6 lb 12 oz	2 gal	6. Combine brown rice, bok choy, pineapple, chicken, sweet and sour sauce, and soy sauce. Pour into steam table pans (12" x 20" x 2 ½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Canned pineapple tidbits, in 100% juice		6 lb 10 oz	3 qt (1 No. 10 can)	13 lb 4 oz	1 gal 2 qt (2 No. 10 cans)	
Frozen, cooked chicken strips, thawed		6 lb 2 oz	1 gal 2 qt	12 lb 4 oz	3 gal	
Sweet and sour sauce			1 qt 2 cups		3 qt	
Low-sodium soy sauce			2 Tbsp		¼ cup	
						7. Bake: Conventional oven: 350 °F for 30 minutes <b>10</b> Convection oven: 350 °F for 20 minutes Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.
						8. Critical Control Point: Hold for hot service at 135 °F or higher. <b>11</b>
*Fresh romaine lettuce, outer leaves, rinsed, dry		5 lb	100 leaves	10 lb	200 leaves	9. Top each romaine lettuce leaf with a 6 fl oz spoodle (¾ cup) of filling. Optional: garnish with diced red peppers. Fold sides of lettuce in toward center; roll up like burrito. Place seam side down. Serve immediately. <b>12</b>
Two wraps provide 1 oz equivalent meat, ¾ cup dark green vegetable, ⅓ cup fruit, and 1 ½ oz equivalent grains. <b>14</b>						10. Serve 2 wraps. <b>13</b>
One wrap provides ½ oz equivalent meat, ¾ cup dark green vegetable, and ¾ oz equivalent grains. <b>14</b>						

**SAMPLE**

- 1 Recipe Name
- 8 Ingredient Amounts
- 2 Meal Components
- 9 Equipment Needed
- 3 Recipe Category
- 10 Cooking Time and Temperature
- 4 Ingredients
- 11 CCP (Critical Control Point)
- 5 Servings per Recipe
- 12 Portioning Utensil
- 6 Weight and Measure
- 13 Serving Information
- 7 Preparation Instructions
- 14 Serving Size and Component Contributions


**REVIEW  
must do**

**Additional recipe elements may be required by your SA. Check before finalizing your recipe format to verify any additional requirements. Your standardized recipes provide**

**information to your SA during the AR. The SA will compare recipe yields to production records servings during the AR.**

Your school nutrition program relies on standardized recipes. They ensure that FBMP provides quality food portioned correctly for each grade group. Now let's look at how to standardize recipes.

### Three Phases of Recipe Standardization



The USDA Recipe Standardization Guide for School Nutrition Programs from the Institute of Child Nutrition (ICN) (<https://theicn.org/cicn/usda-recipe-standardization-guide-for-school-nutrition-programs/>) 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 from conception to implementation of a recipe and includes examples, practice exercises, and reference materials. The following information is adapted from this publication.

Standardizing recipes involves three phases: recipe verification, product evaluation, and quantity adjustment. To achieve the final standardized recipe, your team may need to repeat one or more phases. Here is a brief look at each phase:

**Recipe verification** – Recipe verification consists of identifying the recipe, sourcing ingredients, writing and reviewing the recipe in detail, preparing it in a small-batch quantity, verifying its yield, and recording changes.

**Product evaluation** – Product evaluation focuses on determining the acceptability of the product produced from the recipe. The product evaluation phase is conducted in two parts:

- Informal Evaluation Process — The recipe development team conducts a taste test.
- Formal Evaluation Process — A taste test is conducted with program stakeholders.

**Quantity adjustment** – The quantity adjustment phase is used to change the recipe yield, and ingredient amounts to the desired number of servings for use in the program.

School food service production teams should work together on the recipe standardization process. Input from students and other customers is critical during the product evaluation phase. Determine acceptance standards for each phase of the process. If the recipe meets the acceptance standard, move to the next phase. For recipes that fail to meet established standards, repeat the work before moving forward. A recipe may go through these phases several times before becoming standardized at the necessary quantity for an operation. Once the recipe meets your goals, the process is complete. No modifications will be required unless there are ingredient or equipment changes. Each of the three phases contributes to the success of a recipe.

### Recipe Verification Phase

The Recipe Verification Phase has several steps, including:

- Identifying the recipe using customer feedback and taste preferences of the school community
- Sourcing ingredients through vendors
- Writing the recipe to include all standardized recipe components
- Reviewing the recipe in detail to assess the ease of use and feasibility of the recipe
- Preparing the recipe in a small-batch, usually 25 servings, for taste-testing and evaluation
- Verifying the recipe yield
- Recording changes in the recipe

### Product Evaluation Phase

Product evaluation follows the recipe verification phase and is an important part of the recipe standardization process. Product evaluation helps determine the acceptability of the recipe and provides objective information that can be used to further improve the recipe. Recipe evaluation should include the manager, foodservice staff members, and customers (can include students, teachers, administrators, and parents). Two types of evaluation occur in the evaluation phase: informal and formal.

The recipe needs to pass the informal evaluation before it goes on to the formal evaluation. The informal evaluation may have been conducted with the recipe development team during the Recipe Verification Phase. You may choose to conduct another informal evaluation with the broader school nutrition team to gather additional feedback. Informal evaluation includes three decision choices:

- Product totally unacceptable
- Product acceptable, but requires modifications and goes back to the verification phase
- Product acceptable and ready to be produced for formal evaluation.

The formal evaluation occurs after successfully completing the informal evaluation process when the foodservice staff believes a recipe has potential for service in their operation. Getting feedback from taste testers is key. If the taste testers do not like the recipe, it needs to be re-evaluated. The evaluation should be tailored to the audience— young students, older students, or a mix. As you develop the evaluation, address:

- Acceptable appearance
- Flavor
- Product qualities—hot or cold; moist or dry; hard to chew or bite.

Students may evaluate a product differently than your school nutrition team. The students must like the product for it to become a “winner” in their minds. Remember, the student is your customer, not you and your staff!

During the informal and formal evaluation process, use these steps to prepare the recipe for evaluation:

- Establish an area where everyone may view, taste, and evaluate the recipe produced
- Use evaluation forms to summarize results

Determine the next step for the recipe:

- Accept the recipe as-is
- Modify the recipe until acceptable
- Reject the recipe

### Quantity Adjustment Phase

Once a recipe is accepted, you need to adjust it for quantity production. Adjusting the recipe for quantity production entails scaling the recipe to reflect the number of servings you will use in your program. The factor method is often used in school nutrition programs during standardization. See “Steps to Adjust Recipe Yield” on page 142 to learn how to use the factor method to adjust the yield of a standardized recipe.

As your team completes recipe standardization, you may find modifications necessary to create the quality and quantity required. Always test and standardize recipes before including them in your school nutrition program menus.

*Continued on page 145*



**School District:**  
Prairie Hills Unified  
School District 113

**Located:**  
Sabetha, KS

**Enrollment:**  
1,100

**Website:**  
[www.usd113.org](http://www.usd113.org)

## ***Engaging Staff, Students, and Community for Menu Success***

Brook Brubeck, school food service director, Prairie Hills School District, spearheaded an increase in school meal participation by involving staff, students, and families in improving school menus. All six schools have student teams that participate in taste tests, help evaluate existing menus, and plan new menus. The students have influenced many positive menu changes while learning about meeting the school meal standards. Ms. Brubeck has also started school nutrition program Facebook and Twitter accounts where she posts menus, menu-related food facts, pictures of food-related district activities, and healthy, easy recipes for at-home family fun. Ms. Brubeck also uses an online survey service for feedback and a chat group where she can discuss the surveys, general ideas, and comments about the program with students. This online forum works very well, because it allows the students to interact with her on their schedules. Virtual meetings allow her to meet with students any time. Ms. Brubeck provides the following suggestion to other directors: “I would suggest to directors who don’t know how to set up something like this to work with their tech department, or, even better, go to their technology classes in their schools and ask for help. The students LOVE to teach the adults, and it’s a great learning experience for both parties.” She says, “The main thing I see happening with these new projects is a renewed enthusiasm about school food, both from parents and students. There is a dialogue happening between our staff and their ‘customers’ that had been missing for a while. The kids feel empowered to make suggestions, and the cooks are getting out of their kitchens during lunch service and talking to the kids. It’s wonderful to see both sides open the lines of communication and share their thoughts!”



## Steps To Adjust Recipe Yield

Using the factor method, you can adjust the yield of a standardized recipe for your school nutrition program. Three steps in the process include:

- **Determine the factor to be used:**  $\text{desired yield} \div \text{current yield} = \text{factor}$ .
- **Multiply each ingredient by the factor:**  $\text{current measure} \times \text{factor} = \text{new measure}$ .
- **Change amounts into more common measurements:** a new measure may not convert to a useful measure.

Here is an example for increasing a recipe for the first two steps:

- **Determine the factor to be used:**  $\text{desired yield} \div \text{current yield} = \text{factor}$   
Example:  $250$  (desired serving yield)  $\div$   $100$  (current serving yield) =  $2.5$  (factor).
- **Multiply each ingredient by the factor:**  $\text{current measure} \times \text{factor} = \text{new measure}$   
Example:  $5$  pounds (current measure for  $100$  servings)  $\times$   $2.5$  (factor) =  $12.5$  pounds (measure for  $250$  servings).

Here is an example for decreasing a recipe for the first two steps:

- **Determine the factor to be used:**  $\text{desired yield} \div \text{current yield} = \text{factor}$   
Example:  $125$  (desired serving yield)  $\div$   $250$  (current serving yield) =  $0.5$  (factor).
- **Multiply each ingredient by the factor:**  $\text{current measure} \times \text{factor} = \text{new measure}$   
Example:  $5$  pounds (current measure for  $250$  servings)  $\times$   $0.5$  (factor) =  $2.5$  pounds (measure for  $125$  servings).

Note: The factor to decrease a recipe is always less than 1; the factor to increase a recipe is always greater than 1.

Then, if necessary, use the third step:

- **Change amounts into more common measurements:** a new measure may not convert to a useful measure.

Examples:

A recipe for 50 servings calls for  $\frac{2}{3}$  cup (0.66 cup) shredded carrots, the amount for 300 servings is 3.96 cups of shredded carrots – convert to 1 quart.

A recipe for 100 servings calls for 2 cups of diced onions, the amount for 60 servings is 1.2 cups – convert to  $\frac{1}{4}$  cups of diced onions.

Some ingredients require special attention during recipe standardization. These ingredients do not increase or decrease proportionately:

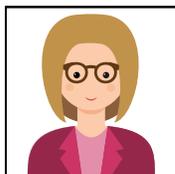
- Herbs and spices
- Leavening agents – baking powder, soda, and yeast
- Thickening agents – flour, cornstarch, and eggs
- Liquids – water and juice.

The best method to determine the quantities of these specific ingredients is to prepare the recipe.

## Menu Chat

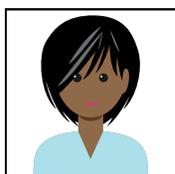


## Hello!



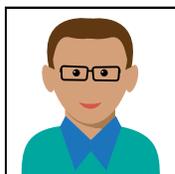
Megan

I am preparing a training session on standardized recipes for my staff. Do you have any tips? I am looking for nuggets of wisdom I can include.



Sandra

I learned through experience that I need to double check the crediting of components for all recipes, no matter the source. The calculations might be wrong or there could be a typo in the recipe. I have a second staff member check my work because of these same issues.



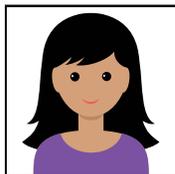
Dylan

I know that even when I cook for my family at home that many recipes I find on websites may not have been tested. I often find ingredients, amounts of ingredients, or preparation steps are missing. I figure that this can happen with a quantity recipe, too. We always review the recipes carefully before we do our first preparation. It saves us time and money in the long run.



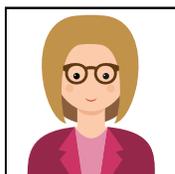
Lin

Our equipment varies by kitchen, so we have to standardize the recipe to each site. My workers that float between sites know how important it is to follow the recipe that is standardized for each kitchen's equipment. Differences in equipment affect recipe volume and other preparation factors. The standardized recipes help ensure a consistent product from all sites.



Elena

We have a recipe for everything on the menu, even single items such as our orange wedges and chicken nuggets. The recipe provides instructions for portion information, washing produce, CCPs, and other preparation steps. Because each product we purchase is assigned an identification number and we use that on the recipes and production records, it helps us catch that rare time when the wrong product is delivered to a school. For example, we stock two different bake and serve whole grain-rich breadsticks, 1 oz eq for grades K–8 and 2 oz eq for grades 9–12. The smaller product does not meet the daily minimum serving amount for grains for grades 9–12, so comparing product ID numbers is important because the product packaging and names are similar. My staff finds this very helpful because we cross train our employees to work in different preparation areas.



Megan

**THANKS!**

I knew I could count on your wisdom, thanks for the ideas!

**Sample Nonstandardized Recipe**

<b>Bulgur and Brown Rice Pilaf</b>			
<b>Servings:</b> 100 - ½ cup servings		<b>Meal Pattern Contribution:</b> 1/2 cup provides 1 oz eq grains.	
Ingredients	Weight	Measure	Directions
Vermicelli, fine, enriched, broken in half-inch lengths	2 lb 8 oz		1. Sauté vermicelli, onion, and garlic in margarine or butter until lightly browned in a skillet over medium-high heat. 2. Add rice and bulgur and sauté. 3. In a large stock pot combine sautéed vermicelli, onion, garlic, rice, and bulgur. Add chicken stock or broth and marjoram. Stir to mix well. 4. Bring to boil, cover and simmer over low heat for approximately 30-35 minutes or until liquid is absorbed. CCP: Heat to 135 °F or higher for at least 15 seconds. CCP: Hold for hot service at 135 °F or higher 5. Portion with a No. 8 (½ cup) scoop.
Onion, diced	3 lb 12 oz	2 qt 2 5/8 cups	
Garlic, finely chopped	2 1/8 oz	20 cloves	
Margarine or butter	1 lb 8 oz	3 cups	
Brown rice	2 lb	5 cups	
Whole grain bulgur (cracked wheat)	4 lb 10 oz	15 cups	
Chicken stock or broth	21 lb 3 oz	2 ½ gal	
Marjoram	¼ oz	3 Tbsp 1 tsp	

Source: Whole Grains Council/Sunnyland Mills

<b>Nutrition Facts per Serving</b>				<b>Whole Grains</b> <i>in Child Nutrition Programs</i>
Calories: 204	Total Fat: 6.15 g	Vitamin A: 466.4 IU	Calcium: 80.24 mg	
Protein: 3.94 g	Saturated Fat: 1.06 mg	Vitamin C: 1.50 mg	Sodium: 623 mg	
Carbohydrates: 34.66 g	Cholesterol: 0 mg	Iron: 4.45 mg	Dietary Fiber: 4.93 g	

These recipes have been provided by schools, but have not been tested or standardized by USDA. Schools should standardize the recipes for their own operation.

- 1 Recipe name
- 2 Yield and portion size
- 3 Weight and measure
- 4 Food components
- 5 Ingredients
- 6 Preparation steps and cooking method
- 7 Equipment needed
- 8 Cooking method
- 9 CCP (Critical Control Point)
- 10 Serving utensil
- 11 Source
- 12 Nutrients per serving
- 13 Not all recipes are marked as tested/not tested! Always test and standardize recipes to your kitchens.

The recipe for Bulgur and Brown Rice (see page 144) looks like a tested, standardized recipe. However, the notation below the nutrition facts per serving section indicates it has not been standardized. Be aware that few quantity recipes are marked this way, even if the recipe has never actually been tested in large quantity amounts. A printed recipe may have been adjusted from a smaller quantity, but never prepared and verified in the larger volume. As your team completes recipe standardization, you may find modifications necessary to create the quality and quantity required. Always test and standardize recipes before including them in your school nutrition program menus.

Here is an example of why standardizing a recipe such as Bulgur and Brown Rice is necessary. Imagine:

- Your school needs 150 ½-cup servings for grade group K–8 and 75 1-cup servings for grade group 9–12.
- The total yield required is 150 cups (volume of total yield is 9¾ gallons).
- The Bulgur and Brown Rice recipe produces 100 ½-cup servings (volume of recipe yield is 3⅓ gallons).

Without standardization, your team might not produce the correct volume or quantity of the Bulgur and Brown Rice recipe. The amount produced may be too little for lunch needs, creating a service line crisis. A standardized recipe that is adjusted to meet volume needs reduces the opportunity for error and improves product consistency. A recipe may have yields divided between two portion amounts: 150 ½-cup servings for K–8 and 75 1-cup servings for 9–12.

Through standardization you and your team will create a recipe that meets the needs of your school(s). How a serving portion of the recipe contributes to meal components is essential information. USDA standardized recipes provide component contributions. For recipes without component contributions, you will need to calculate and add those to the recipe information.

### How To Calculate Meal Components per Serving

Once the process of increasing or decreasing a recipe is complete, your next step is to calculate meal components for each serving amount. The Recipe Analysis Workbook (RAW) is a tool to help you determine your recipe's meal pattern contribution. You can access the RAW in the FBG Interactive Web-Based Tool at <https://foodbuyingguide.fns.usda.gov/>. The RAW calculates the meal contribution for each creditable ingredient.

Information you will need to complete the RAW includes:

- Ingredients that contribute to the meal components
- Correct weight and volume of each ingredient
- Serving size (½ cup, one slice, one sandwich, etc.)
- Servings per recipe.

Review the user guide and training videos in the FBG Interactive Web-Based Tool on using the RAW. You will want to save a copy of the RAW for each recipe you calculate.

A standardized recipe also includes food safety information. Your staff members need to know CCPs and critical limits for safe food production, specific to each recipe or menu item. In the next section, you will learn about HACCP-based food safety procedures.

### HACCP-BASED FOOD SAFETY PROCEDURES



**The National School Lunch Act requires School Food Authorities (SFAs) to implement a school food safety program based on**

**Hazard Analysis and Critical Control Point (HACCP) principles.**

HACCP is a systematic approach of constructing a food safety program. The approach reduces the risk of foodborne hazards by focusing on steps of the food preparation process – receiving through service. A food safety checklist is an excellent tool for developing strong HACCP procedures. The *Food-Safe Schools Action Guide (Action Guide)* (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>) features a checklist to evaluate your food safety program. Use the evaluation results to determine any changes needed to your HACCP-based food safety program.

#### **HACCP-Based Standard Operating Procedures (SOPs) Support Your Food Safety Program**

SOPs are written instructions for routine activities. Write original or modify sample SOPs to support

your food safety program. When followed, SOPs safeguard food during food preparation and service. You need to make your food safety SOPs specific to each school meal production facility in your district. This is because equipment and facilities vary among sites. You may also need to modify them to meet additional State and local requirements. Once you have written SOPs, training, supervision, and management are critical in creating a culture of food safety. The goal is for SOPs to become second nature to your staff.

HACCP-based food safety SOPs include:

- Instructions
- Monitoring procedures
- Corrective actions
- Verification procedures
- Recordkeeping procedures.

Active managerial control (AMC) is critical to the success of a food safety program based on HACCP principles. AMC is a tool that management uses to lead school nutrition staff members in handling food safely. AMC requires school nutrition managers to take proactive and preventive, rather than reactive, approaches to food safety. Your school HACCP-based food safety program is more than a written plan. Your staff puts that plan into action every day. Their routine work habits reduce foodborne illness risk.

### **Important HACCP Terms**

- Hazard Analysis – review of operation to identify areas where food safety problems may occur.
- Control Measures – steps to reduce food contamination or bacterial growth.
- Critical Control Points (CCPs) – points in food preparation where process control (example – cooking) is essential to keep food safe.
- Critical Limits – time and temperature range for food preparation and service to keep food safe (hot, 135 °F or higher; cold, 41 °F or lower).
- Process Approach – a HACCP method of grouping menu items into one of three processes depending upon the number of times food goes through the temperature danger zone (41 °F to 135 °F).





**School District:**  
Wilson County  
Schools

**Located:**  
Wilson,  
North Carolina

**Enrollment:**  
12,400

**Website:**  
[www.wilsonschooalsnc.net/](http://www.wilsonschooalsnc.net/)

## Active Managerial Control with Daily Staff Meetings

Cindy Bailey, R.D., director of Food Services, Wilson County Schools, has developed a policy and standard operating procedure (SOP) for daily menu meetings. This is a great example of Active Managerial Control, taking a proactive and preventive approach to operation challenges. The policy states that school nutrition managers will conduct daily menu meetings with staff to ensure that all lunch and breakfast meals comply with the nutrition standards and food safety practices. During the 5-10 minute meeting, the team reviews:

- Meal equivalents of food items
- Recipes
- Substitutions and/or leftovers
- Time as a Public Health Control (TPHC) items and procedures
- Non-TPHC items to be recorded on daily temperature log
- Components in each menu item and what constitutes a reimbursable meal.

The SOP also states the child nutrition supervisor and child nutrition director will observe daily menu meetings in their kitchen reviews, onsite reviews, and regular visits. Developing a districtwide policy and SOP for daily staff meetings at each school helps ensure consistent implementation through knowledgeable and engaged staff.



Wilson County Schools standard operating procedure calls for a daily menu meeting for staff to review reimbursable meal and food safety practices for each day's menu.



Preparation and service food safety SOPs focus on:

- Controlling time and temperature during:
  - Preparation
  - Cooking of Time/Temperature Control for Safety (TCS) foods
  - Cooling TCS foods
  - Reheating TCS foods
  - Holding hot and cold TCS foods
- Date marking ready-to-eat foods and TCS foods
- Preventing cross-contamination during storage and preparation
- Calibrating and using thermometers
- Using appropriate utensils or wearing gloves when handling ready-to-eat foods.

Your food safety SOPs help your school nutrition team know how to:

- Practice good personal hygiene
- Monitor food temperatures to control time spent in the temperature danger zone
- Use single-use gloves or utensils when handling ready-to-eat foods
- Use a calibrated thermometer to check food temperatures
- Follow CCPs in standardized recipes
- Meet critical limits
- Record food temperatures during holding, serving, and storage

### Food Safety – Administrative Review

Food safety is a general area of the Administrative Review. To evaluate compliance, the SA must:

- Review the written food safety plan for compliance with Hazard Analysis and Critical Control Point (HACCP) program criteria found in Facilities Management, Food safety program; 7 Code of Federal Regulations (CFR) 210.13(c).
- Determine whether the SFA has any contracted or self-operated warehouses and, if so, determine whether all foods (commercial and USDA Foods) are being stored properly.
- Determine whether two food safety inspections have been obtained.
- Confirm the posting of the most recent food safety inspection report.\*
- Verify compliance with HACCP principles and local and State health standards.
- Check temperature logs to ensure proper recordkeeping.
- Examine onsite food storage for dates and condition of foods.

SAs are expected to assess food safety compliance offsite and onsite.

\* **Note:** Report formats may vary, and in some cases be too large in size to post. Thus, SA reviewers should ensure that the posted portion reflects the inspection dates and approval/disapproval status, and allow that other supporting documents contained in the report be maintained on site and be available upon request.

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual.



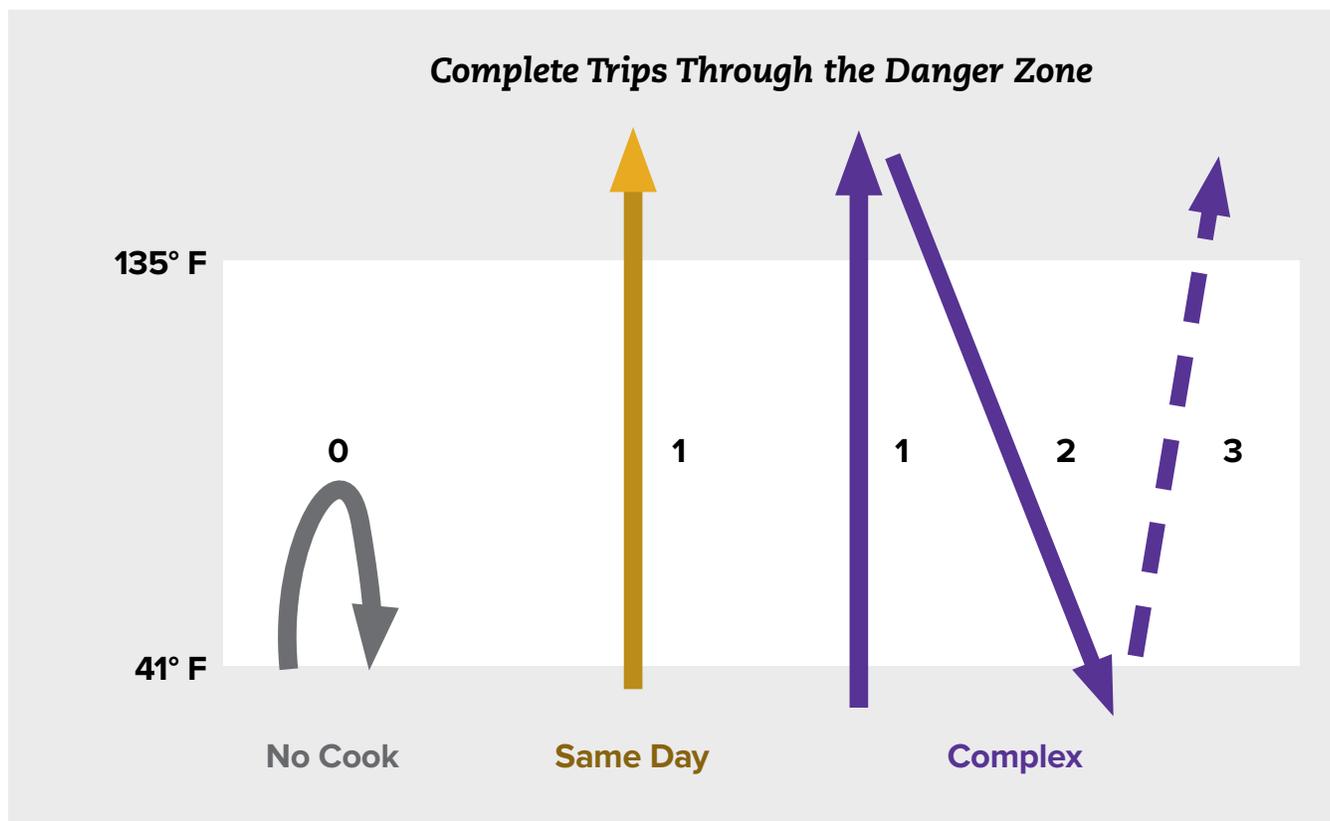
The ICN's Food Safety Resources web page (<https://theicn.org/icn-resources-a-z/food-safety-resources/>) has many resources developed to provide assistance in ensuring food safety in your program. These resources include food safety logs, food safety standard operating procedures (SOPs), fact sheets, and more, including some resources in Spanish. Additionally, the ICN offers a Writing, Updating, and Revising a HACCP-Based Food Safety Plan for Schools workshop (<https://theicn.org/icn-resources-a-z/writing-a-haccp-based-food-safety-plan-for-schools>) to assist Program operators with updating their own HACCP-based food safety plan. Use the resources listed in the Action Guide and at the ICN website as you develop your food safety program.

### Process Approach to HACCP

One of the ways to build HACCP-based food safety practices into your school nutrition operations is to use the Process Approach to HACCP (Process Approach). Just like it sounds, the Process Approach centers around processes or procedures that ensure safe food-handling practices. USDA recommends that schools use the Process Approach.

With the Process Approach, your menu items/recipes are categorized by the appropriate process and supported by SOPs in your food safety program. Together the SOPs and recipes guide your staff through daily production and service.

### Danger Zone Diagram



All recipes have CCPs and critical limits, and the SOPs direct when to monitor, where to log food temperatures, and when and how to take corrective actions. Because the same steps or processes are used for all foods in the same category, staff training is focused on daily work habits. So, the Process Approach is another way to incorporate a culture of food safety in your program.

The Process Approach focuses on the number of times a food moves through the temperature danger zone (41 °F to 135 °F). Foods are grouped into one of three process categories (see Appendix 4.C for details on each process):

- Process #1 – No Cook

The menu item does not go through the entire danger zone at any time.

Example: Melon is washed, peeled, cut, and held for service at 41 °F or lower.

- Process #2 – Same Day Service

The menu item goes through the danger zone once during cooking.

Example: Pizza is cooked to 165 °F; held for service at 135 °F or higher; leftovers discarded.

- Process #3 – Complex Food Preparation

The menu item goes through the temperature danger zone at least twice, first heating (cooking) and then proper cooling for future use. These menu items may go through the temperature danger zone a third time if they are reheated and then hot-held.

Example: Lasagna ingredients prepared in advance

- Day 1: The noodles are cooked, rinsed, and cooled to 41 °F or less; meat sauce is cooked to 165 °F and cooled to 41 °F or less; ingredients are held at 41 °F or less for further preparation the next day.
- Day 2: The lasagna ingredients are layered in the baking pan – cooked noodles, meat sauce, and cheese all at 41 °F or less; cooked to 165 °F for 15 seconds; held for service at 135 °F or higher.

Here is how to build the Process Approach into your recipes. Start with a review to determine which process is correct for each recipe or menu item. Make sure CCPs and critical limits are part of the instructions on all of your standardized recipes. Identify where staff will record temperatures, whether on production records or logs. When you have a new or revised menu item, categorize that item in the appropriate process group. Verify the recipe has proper CCPs and critical limits listed.

Train your staff on the Process Approach including how and when to take corrective action and how to document steps taken. Training helps your staff understand the importance of changes on production records, standardized recipes, and other records to incorporate and document your food safety program. Food safety is one of the training topics identified for Professional Standards requirements. *Food Safety in Schools* from ICN, available in English and Spanish (<https://theicn.org/icn-resources-a-z/food-safety-in-schools>), includes training materials on the Process Approach. Establish a monitoring system to confirm that menu items are in the correct process group and that staff members follow established CCPs. Maintain monitoring records to confirm food is safely prepared and served.

The USDA Bok Choy Wrappers recipe mentioned earlier in this chapter includes CCPs in the preparation steps. Preparation step 7 states to bake the bok choy filling to an internal temperature of 165 °F or higher for at least 15 seconds, and step 8 states to hold hot for service at 135 °F or higher. Your recipes should include CCPs if preparation requires foods to move through the temperature danger zone. Any time recipes are modified, include CCPs to maintain food safety.

The SA will review your program for food safety practices and HACCP principles. Recordkeeping and SOPs are critical to adhering to food safety regulations.



## Tracking Time and Temperature During Food Production

Time and temperature controls are critical to food safety. All items on your menu should be evaluated to determine those that require time and temperature control for safety. The abbreviation TCS means Time/Temperature Control for Safety. TCS foods require special controls because these foods support the growth of bacterial pathogens and the formation of toxins. Examples include meat and poultry, sliced melons or tomatoes, or reheated combination foods such as chili. Time and temperature controls are important to limit the growth of microorganisms or formation of toxins. School nutrition staff must follow established guidelines to meet and maintain food safety standards, which require:

- Maintaining food temperatures above or below the temperature danger zone
- Monitoring foods that pass through the temperature danger zone
- Tracking total time a food is in the temperature danger zone
- Discarding food held in the temperature danger zone more than 4 hours.

Your staff practices food safety with time and temperature controls for foods during preparation, holding, service, cooling, and storage. You can learn more about TCS and time and temperature control in *Food Safety Basics 2nd ed.* (<https://theicn.org/icn-resources-a-z/food-safety-basics>) from the Institute of Child Nutrition.

**Keep Hot Foods Hot**

**Hot**

Temperature Danger Zone  
41 °F to 135 °F

**Keep Cold Foods Cold**

**Cold**

135 °F

41 °F

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01/2016

### **Preparation and Service During the Administrative Review**

The SA must observe meal preparation and service on the day of review at the selected schools to determine whether the SFA follows the food safety program and HACCP principles.

To make this determination, the SA should use the statements below as a guide:

- Proper personal hygiene is evident (hair restraints, gloved hands, appropriate hand washing).
- Cross-contamination is prevented.
- Food temperatures are monitored and recorded.
- Refrigerator and freezer temperatures are monitored and recorded.
- Food preparation and service areas are clean.
- Clean utensils and equipment are used for food preparation and meal service.
- No obvious evidence of pests is present.

**Note:** These statements are not exhaustive, and the SA should use discretion regarding any observations related to improper food handling. For example, if the SFA Onsite Monitoring form for a selected school noted a particular food safety violation, then the SA should ensure that the same violation does not occur during the day of review. Furthermore, the SA should ensure that a copy of the food safety program is available and easily accessible to food service staff at each selected school.

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs. Administrative Review Manual.



## CONCLUSION

Production records, standardized recipes, and HACCP food safety procedures are critical to the success of your school nutrition program. The production record provides the planned and actual menu items produced and served. The standardized recipe provides a quality product consistent with the menu. Follow HACCP-based SOPs to ensure your food safety program applies to every food item and meal prepared.

Production records, standardized recipes, and written HACCP-based food safety SOPs ensure your customers receive nutritious, safe, high-quality meals that not only meet regulations, but also taste good! Let's summarize the key points of this chapter:

- Production records provide:
  - Preparation and service information
  - Actual daily counts of meals produced and served for reimbursement
  - Records for forecasting, procurement, and inventory management
  - Records for the AR.
- Standardized recipes:
  - Are tested for use in your kitchen(s) and produce consistent good results and yields every time when using the same procedures, equipment, and quality and quantity of ingredients
  - Help provide:
    - Reliable nutrition content
    - Food-safe practices
    - Product quality and quantity management
    - Reliable production forecasting
    - Cost control
    - Consistent results that students expect
  - Are not standardized *until* they are modified to meet your specific school nutrition program
- Are developed in three phases:
  - Recipe verification
  - Product evaluation
  - Quantity adjustment.
- HACCP-based food safety programs:
  - Are required in your school nutrition program
  - Use written food safety SOPs that include:
    - Instructions
    - Monitoring procedures
    - Corrective actions
    - Verification procedures
    - Recordkeeping procedures
  - Often use standardized recipes that incorporate the Process Approach to HACCP
  - Include staff training and AMC.

Production records, standardized recipes, and HACCP-based food safety procedures are vital to your school nutrition program. They help ensure your operations meet NSLP and SBP guidelines and food safety regulations as well as satisfy your customers. Your entire school nutrition team will rely on the information provided by production, recipe, and HACCP documentation to prepare and serve nutritious, safe foods. That is a formula for success and increased student participation. In the next chapter, you will learn how to procure food and supplies.

**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**



1. What are the two steps for completing production records?
2. What are three advantages of standardized recipes?
3. What are the three phases of recipe standardization?
4. HACCP-based SOPs include what five steps?
5. What is the Process Approach to HACCP?

**If you got the answers right, great job! You are ready for the next chapter.**

**If you missed any, review that section of the chapter before moving on to the next chapter.**

### LINKS TO ADDITIONAL RESOURCES

Institute of Child Nutrition, Basics at a Glance, University, MS (<https://theicn.org/icn-resources-a-z/basics-at-a-glance/>).

Institute of Child Nutrition, Child Nutrition Recipe Box, University, MS (<https://theicn.org/cnr/>).

Institute of Child Nutrition, Food Safety Basics 2nd ed., University, MS (<https://theicn.org/icn-resources-a-z/food-safety-basics>).

Institute of Child Nutrition, Food Safety in Schools, 2015, University, MS. (<https://theicn.org/icn-resources-a-z/food-safety-in-schools>).

Institute of Child Nutrition, Seguridad de alimentos en las escuelas, 2016, University, MS. (<https://theicn.org/icn-resources-a-z/seguridad-de-alimentos-en-las-escuelas-spanish-version-food-safety-in-schools/>).

Institute of Child Nutrition, HACCP-Based Standard Operating Procedures, 2016, University, MS (<https://theicn.org/resources/600/food-safety-sop-resources/105656/complete-manual.doc>).

Institute of Child Nutrition, Production Records, University, MS (<https://www.theicn.org>).

U.S. Department of Agriculture, Food and Nutrition Service, Food Buying Guide for Child Nutrition Programs, Alexandria, VA (<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>).

U.S. Department of Agriculture, Food and Nutrition Service, Food-Safe Schools Action Guide, Alexandria, VA (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>).

U.S. Department of Agriculture, Food and Nutrition Service, Guidance for School Food Authorities: Developing a School Food Safety Program Based on The Process Approach to HACCP Principles, 2005, Alexandria, VA ([https://fns.usda.gov/sites/default/files/Food\\_Safety\\_HACCPGuidance.pdf](https://fns.usda.gov/sites/default/files/Food_Safety_HACCPGuidance.pdf)).

U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual (contact your State agency for the most current version).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition, Recipes for Healthy Kids Cookbook for Schools, Alexandria, VA (<https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>).

U.S. Department of Agriculture, Food and Nutrition Service, USDA Recipe Standardization Guide for School Nutrition Programs, Alexandria, VA (<https://theicn.org/cicn/usda-recipe-standardization-guide-for-school-nutrition-programs/>).

**APPENDIX ITEMS**

**Appendix 4.A** Production Record Samples

**Appendix 4.B** Basics at a Glance

**Appendix 4.C** The Process Approach to HACCP  
for No Cook, Same Day Service, and Complex  
Food Preparation



## CH.5

# Procurement and Inventory Management



# Procurement and Inventory Management

## CH.5

*You might wonder how procurement and inventory management can bring a smile to students' faces. How well you manage these functions within your district's budget affects the degree of variety and quality that menus provide. A fiscally sound school nutrition program provides the best possible meal experience for students and the school community.*

### **In this chapter, you will learn about:**

- Procurement:
  - The Buy American Provision
  - Forecasting, sourcing, and bidding
  - USDA Foods: Variety, menu options, and available resources
  - Buying locally: Farm to School and geographical preferences
  - Documenting: Child Nutrition (CN) labels, Product Formulation Statements (PFS), and Nutrition Facts labels
- Inventory management: Ordering, receiving, storage, recall management, and safe-food practices
- Equipment needs: Choosing and using equipment for healthy meals.

This chapter will guide you through procurement and inventory management as they relate to menu planning. Your menus drive both functions, each key to your goal of providing quality, nutritious meals.

### **THE BUY AMERICAN PROVISION**

The Buy American Provision is a very important provision in the National School Lunch Program/ School Breakfast Program (NSLP/SBP) regulations and applies to a Child and Adult Care Food Program (CACFP) sponsor that is a school food authority (SFA) operating the NSLP/SBP. These regulations do not apply to CACFP sponsors that are not SFAs operating the NSLP/SBP.

This provision requires that a school food authority purchase, to the maximum extent practicable,

domestic commodities or products. The term “domestic commodity or product” means an agricultural commodity that is produced in the United States (US); and a food product that is processed in the US substantially using agricultural commodities that are produced in the US.

“Substantially” means that over 51 percent of the final processed product consists of agricultural commodities that were grown domestically. There are two limited exceptions when non-domestic foods may be purchased. These exceptions are determined by the SFA:

- The food or food product is not produced or manufactured in the United States in sufficient and reasonably available quantities of a satisfactory quality; or
- Competitive bids reveal the cost of a United States food or food product is significantly higher than the nondomestic product.

Thus, for foods that are unprocessed, agricultural commodities must be domestic, and for foods that are processed, they must be processed domestically using domestic agricultural food components that are comprised of over 51 percent domestically grown items, by weight or volume.

For products procured by SFAs using nonprofit food service account funds, the product's food component is considered the agricultural commodity. FNS defines food component as one of the food groups which comprises reimbursable meals. The food components are: meats/meat alternates, grains, vegetables, fruits, and fluid milk. Please refer to 7 CFR 210.2 and 226.20 for full definitions.

**Food Service Director and Site Managers Create Efficient Ordering**

Molly Rainey, food service director, Valley Center School District, has developed an ordering spreadsheet that site managers receive and complete weekly. Ms. Rainey reviews the completed forms to fill the purchasing order for the following week. This practice has been instrumental in aiding managers to stay atop of their current inventory levels and be more precise in ordering practices. With this approach, the school nutrition program now operates in the black and is completely self-supporting – a true success story!

**Valley Center School Food Ordering Sheet — HIGH SCHOOL**

Order Period: \_\_\_\_\_ Order Due Date: \_\_\_\_\_

Date/Day	Serving Size	Component	Component Contribution	Amount for Recipe	Amount on Hand	Order Amount	Food Company
Product							
<b>SALAD BAR</b>							
Am Cheese Shred							
Black Beans							
Black Olive							
Broccoli							
Carrots							
Eggs							
Peppers							
Red Onion							
Tomato, fresh							
Turkey Bacon							

Excerpt from Valley Center School Food Ordering Sheet

**Each Valley Center ordering spreadsheet is unique to a menu type (such as High School) and features products and suppliers for the menu week.**



**School District:**  
Valley Center  
Unified School  
District 262

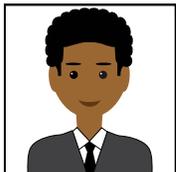
**Located:**  
Valley Center,  
Kansas

**Enrollment:**  
2,800

**Website:**  
[www.usd262.net](http://www.usd262.net)

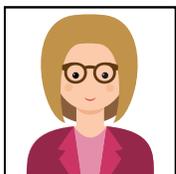
Menu Chat ⓘ ⌘ ✉ 🔄

Hi colleagues!



Tyler

I am learning more about procurement. How does this work in your schools? Are you the only person who is responsible for procurement?



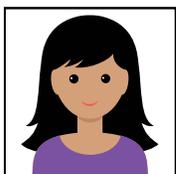
Megan

We run a large school nutrition program and I am part of the management team. Other team members are also dedicated to procurement and inventory management. We follow Federal procurement requirements and handle most details of the solicitation process ourselves. It makes sense for us to work closely on this since we understand our needs better than anyone else.



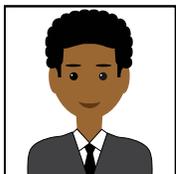
Lin

Our district's food service operation is small so we depend on the expertise of the district's business manager. She listens to our needs based on program requirements and helps us with procurement. We have a great partnership. Additionally, the business manager plays a significant role in the various accounting processes involving the nonprofit school food service account. Working together on issues that involve the use of the account funds ensures that we work collaboratively to properly manage nutrition program funds.



Elena

When I first started working for our school nutrition program, I did not know much about procurement. I made sure I was familiar with the applicable Federal procurement requirements for schools and in doing so learned how important it is to forecast my program's needs. There was a lot to learn at first, but understanding the benefits of forecasting program needs, how to use the proper procurement methods, and how to develop effective specifications and solicitations to express my district's scope of need has benefitted our program greatly.



Tyler

**THANK YOU**

Thanks for the tips and the reminder to check out the available tools and resources when we revise menus.

## ELEMENTS IN PROCURING QUALITY FOOD

Procurement, or the processes for purchasing goods and/or services, supports the goal of school nutrition programs: to provide safe and nutritious food to all children in the school system. The nutritional needs of children drive every purchasing decision. What you purchase also supports your staff's work in food preparation and service. Procurement in school nutrition is a multistep process where planning is critical to procuring high-quality products and services at the lowest cost.

Depending on your role, you may be responsible for procurement in your school nutrition program. Or, you may support the process because you are responsible for menu planning. Either way, you must understand the procurement process and your local procedures to ensure:

- Safe, nutritious, quality meals
- Economical purchases
- Full and open competition
- Adherence with Federal, State, and local regulations.

## PARTNERS IN THE PROCUREMENT PROCESS

Procuring food and products for school meals may seem as simple as buying the items. In reality, it is a complicated process that requires *open* communication and collaboration among everyone in the food supply chain. This chain includes the SFA staff, USDA, local producers and processors, food service management companies, manufacturers, distributors, and brokers.

The SFA is the governing body responsible for administration of one or more schools and has legal authority to operate any of the Federal Child Nutrition Programs. Your SFA's procurement policies will drive purchasing decisions. Depending on the size of your school district, you may work with the school business office on procurement or have that function performed by school nutrition staff members. No matter which office handles the procurement work, there are requirements to follow.

The SFA is responsible for the proper use of school nutrition program funds to provide nutritious foods to students. The process must be competitive and transparent—clear, honest, and open. Transparency leads to accountability and cost effectiveness, which are important in federally funded programs.

Your school nutrition programs must provide full and open competition so that all suppliers have the same opportunity to compete. Your school nutrition program must seek responses from qualified suppliers who are capable of meeting the contract terms and conditions. Fairness and honesty throughout the process is both a requirement and the right thing to do.

USDA's Food and Nutrition Service (FNS) oversees Child Nutrition Programs. USDA support for SFAs includes policy, technical assistance, nutrition education, meal reimbursement, and USDA Foods. Approximately 15–20 percent of foods in school nutrition programs are provided by USDA Foods. This program supplies foods that are 100 percent American-grown and -produced in order to support domestic agriculture. USDA also provides procurement oversight information and guidance to State agencies (SAs). Your SA can provide you with more information on these processes.

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***The SFA is responsible for the proper use of school nutrition program funds to provide nutritious foods to students. The process must be competitive and transparent—clear, honest, and open. Transparency leads to accountability and cost effectiveness, which are important in federally funded programs.***

---

Manufacturers, distributors, and brokers work to provide the quantity, quality, delivery schedule, and best price for the products requested. They are your partners in acquiring food and supplies.

Farm to School is a popular way to feature local foods, where the SFA may define local and use this to apply a preference for unprocessed locally produced foods. These foods provide benefits of



**School District:**  
Sarasota County  
Schools

**Located:**  
Sarasota,  
Florida

**Enrollment:**  
42,000

**Website:**  
[www.  
sarasotacounty  
schools.net/](http://www.sarasotacounty<br/>schools.net/)

### Innovative Solicitation Process Maximizes Local Produce in County Menus

Sarasota County Schools created a solicitation process to develop its Farm to School program. Since 2009, the district has had a separate Florida “Farm Fresh Produce” bid solicitation, in addition to one for produce grown outside the State. This method allows the district to receive a variety of produce items while also emphasizing the importance of Farm to School and selecting Florida-grown fresh produce as much as possible. In Florida, the growing and harvest seasons coincide with the school year. Working with the menu committee, Malory Foster, RDN, LDN, Farm to School liaison, ensures seasonal menus maximize Florida-grown fresh produce and highlight Florida foods in marketing efforts.

	2013 – 2014	2014 – 2015
August	5%	0%
September	3%	5%
October	8%	16%
November	13%	24%
December	14%	35%
January	21%	45%
February	27%	54%
March	27%	55%
<b>Total</b>	<b>14%</b>	<b>30%</b>

The chart shows increases in local fresh produce percentages for Sarasota County Schools with a Florida “Farm Fresh Product” bid solicitation and promotion program.

seasonality and often cost savings. Your school nutrition program may competitively purchase foods from local farmers or access these products through a distributor. The USDA Farm to School Program is a resource to help you with sourcing local and regional foods.

Your goal is to provide nutritious and safe food daily. You can achieve this goal through:

- Careful planning
- Quality preparation
- Strong commitment from nutrition program partners in the food supply chain.

## PROCUREMENT STARTS WITH THE PLANNED MENU

Your menu is the driving force when beginning the procurement process. The menu and standardized recipes determine the type of products needed. Forecasting describes how you determine the amount of each food needed; sourcing describes matching the products you want to possible suppliers.

### Forecasting

The time you spend to accurately estimate the quantity and quality of goods, products, and/or services needed for the school year is important. Use historical information from menus, production records, and average daily participation (ADP) to help develop your forecast numbers. Proper forecasting leads to accurate estimates and financial success. Forecasting also includes projecting how changes in your program or school district may affect historical information. For example, implementing the Community Eligibility Provision, adding Breakfast in the Classroom, or adding a new school may substantially increase program participation. Likewise, closing schools due to reduced enrollment or moving from a 5-day to 4-day school week also affects your forecasting. These changes need to be included when projecting estimated quantities.

As part of your forecasting process, conduct product taste tests. Taste tests help you determine

which items/brands best suit your customers. Include students to help build relationships and to ensure products have student appeal. Ask students to provide feedback on foods, and then market your program as “student-approved.” Use your students’ preferences to forecast volumes of popular items. Working together with your customers will have a positive impact on program credibility and participation.

When you are forecasting, review your recipe file. Does your file include USDA standardized recipes? USDA recipes provide marketing information that helps estimate the amount of certain ingredients needed for production. Use the marketing guide on USDA recipes, and add it to other recipes, as needed. See the *Take a Closer Look* feature on page 163 to learn more.

### Sourcing

In addition to knowing the type, quality, and quantity of products needed to produce the menu, you need to find the source for each product. Sourcing will often involve several options. Depending on the product and time of year, you may be working with a variety of sources. For example, peaches may be available fresh from a local farmer at the beginning of the school year and fresh from a produce distributor until November. Then, they may be available canned or frozen from USDA Foods, and from a distributor when your USDA Foods are out of inventory. Local producers, manufacturers, distributors, and brokers are all sources to consider when competitively procuring products.

### USDA Foods

USDA Foods are valuable resources available to schools that participate in the NSLP. School districts can take advantage of USDA Foods by choosing from a wide variety of options, including fruits, vegetables, whole grain-rich items, lean meats, and dairy products. These items can be delivered throughout the year to meet the needs of your school district. Check with your State Distributing Agency (SDA) for more information about USDA Foods in your State. School districts participating in NSLP receive USDA Foods “entitlement dollars” to support their school nutrition program. Entitlement dollars are

*Continued on page 170*



### USDA Recipe Marketing Guide

USDA recipes provide information to assist in purchasing necessary quantities of food for recipe production. Recipes call for the specific amount of an ingredient. However, the ingredient amount is seldom equal to the purchasing amount for many types of food. For example, when recipes call for fresh fruits or vegetables, the ingredient amount is typically the edible or trimmed portion. The purchase amount will be more than the ingredient amount to account for losses. These losses include portions of the fruits and vegetables that are not consumed. The marketing guide section of each recipe provides purchasing information, including:

- Food as Purchased (AP) – lists each food item to purchase
- Food quantity for each recipe yield; for example, 50 servings or 100 servings.

This recipe for Mediterranean Quinoa Salad calls for fresh red pepper, green onions, red onions, cherry tomatoes, and parsley. The asterisk next to these ingredients calls attention to the prepared amount, or edible portion (EP).

Mediterranean Quinoa Salad			
Meal Components: Other Vegetable-Grains			
Ingredients	50 Servings		
	Weight	Measure	Weight
Quinoa, dry	3 lb 6 oz	2 qt ½ cup	6 lb
Low-sodium chicken broth		1 gal	
Lemon juice		½ cup	
Red wine vinegar		½ cup	
Fresh garlic, minced		2 Tbsp	
Extra virgin olive oil		½ cup	
Salt		1 Tbsp 1 tsp	
Ground white pepper		1 tsp	
*Fresh red bell peppers, diced	11 oz	2 cups	1 lb
*Fresh green onions, diced	4 oz	1 cup	8
*Fresh red onions, diced	6 oz	1 cup	12
*Fresh cherry tomatoes, halved	1 lb 6 ½ oz	1 qt	2 lb
Black olives, sliced	5 oz	1 cup	10
Feta cheese, crumbled	1 ½ cups		3 lb
*Fresh parsley, finely chopped	1 cup		2 lb

- \*Fresh red bell peppers, diced
- \*Fresh green onions, diced
- \*Fresh red onions, diced
- \*Fresh cherry tomatoes, halved
- Black olives, sliced
- Feta cheese, crumbled
- \*Fresh parsley, finely chopped

The recipe marketing guide shows the amount of each fresh vegetable to purchase that will trim to the recipe quantity. For example, the 50-serving recipe calls for 11 oz of diced red pepper. The marketing guide shows that 14 oz, or just under 1 lb, of red bell peppers will trim and dice to 11 oz. Both of these measurements are weight. A volume amount of diced red pepper is also provided: 1 cup for 11 oz. When appropriate, both weight and volume are listed in the recipe.

The *Food Buying Guide for Child Nutrition Programs* (FBG) shows how to determine marketing guide quantities. Use the FBG information under Column 6, Additional Information. Here you see that 1 lb whole red peppers yield about 0.80 lb (12.8 oz) of diced red pepper.

Mediterranean Quinoa Salad			
Meal Components: Other Vegetable-Grains			
Notes			
*See Marketing Guide for purchasing information, preparation or when a variation of the ingredient is used.			
Serving	Yield	Marketing Guide	
		Food as Purchased for	Quantity needed as purchased for recipe yields (# servings)
½ cup (6 fl oz spoon) provides V cup other vegetable and 1 oz	50 Serv about	50 servings	100 servings
		Red bell peppers	14 oz 1 lb 12 oz
		Green onions	5 oz 10 oz
		Red onions	7 oz 14 oz
		Cherry tomatoes	1 lb 7 oz 2 lb 14 oz
		Parsley	1 ½ oz 3 oz

SECTION 2 – VEGETABLES, RED/ORANGE SUBGROUP					
1. Food As Purchased, AP	2. Purchase Unit	3. Servings Per Purchase Unit, EP	4. Serving Size Per Meal Contribution	5. Purchase Units For 100 Servings	6. Additional Information
<b>Peppers, Bell Fresh</b> Orange or Red, Medium or Large, Whole	Pound	9.70	¼ cup chopped or diced raw vegetable	10.4	1 lb AP = 0.8 lb ready-to-serve or -cook peppers
	Pound	14.70	¼ cup raw vegetable strips	6.9	1 lb AP = 0.73 lb cooked peppers
	Pound	9.80	¼ cup cooked, drained vegetable strips	10.3	

In addition, the online FBG Calculator is a tool that can be used to determine the right quantity of food to purchase. To determine a recipe quantity, enter the number of servings and a serving size that correspond with the recipe yield. In the example, the calculator shows that 0.82 lbs of red bell peppers (13.2 oz) will trim to 2 cups volume. The purchase amount is rounded up to 1 lb.

Marketing guides help prevent underpurchasing and overpurchasing. Consider adding a marketing guide to all of your school recipes. Your standardized recipes may be for quantities larger than 100 servings; create a marketing guide that matches your usual production for each recipe.

The Mediterranean Quinoa Salad is found in the *Recipes for Healthy Kids Cookbook for Schools* (<https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>).



## **USDA Foods: Changing School Lunch and Supporting American Agriculture**

USDA Foods provide healthy foods to schools by:

- Purchasing more than 900 million pounds of food from American farmers each year
- Meeting strict food safety and nutrition standards and using 100 percent American-grown foods
- Providing high-quality meals to more than 30 million students each school day
- Adding versatility and being an economical way to provide the Nation's children with appealing meals.

### **Serving up Nutritious Options in Schools**

USDA Foods include a wide variety of high-quality fruits, vegetables, dairy products, whole grains, and lean meats and other protein options. They align with the *Dietary Guidelines for Americans* and the school meal pattern requirements to help schools prepare healthy meals.

In recent years, USDA has reformulated products in every food category to help schools offer nutrient-dense, kid-friendly meals. Not only do these high-quality foods taste good, but they are also lower in sugar, sodium, and fat. For example, canned fruits are packed in extra-light syrup. Frozen and canned vegetables are low-sodium or no-salt-added. Many meats and cheeses have lower fat and sodium profiles than commercial equivalents.

“In working to meet the school nutrition standards, I find the USDA Foods Program has worked hard to increase our choices and access to new food items. I am particularly glad to see more red/orange and dark-green vegetables available through the USDA Foods Program. Schools should take full advantage of the products available through USDA Foods and also reach out to USDA as great sources for program support.”

– Doug Davis, SNS Director of Burlington School Food Project

When planning what to serve, explore ways USDA Foods can complement your existing menus. The sample menu on the next page displays how USDA Foods may be incorporated into your menus to create nutritious, flavorful meals.

## Sample Menu

### TACO BAR

Whole Grain-Rich Tortilla\*

#### Choice of Meats/Meat Alternates:

- Diced Chicken\*
- Turkey Taco Filling\*
- Catfish Strips\*
- Shredded Cheddar Cheese\*

#### Choice of Vegetable Toppings:

- Refried Beans\*
- Black Beans\*
- Salsa\*
- Corn\*
- Lettuce★

Fiesta Rice (brown rice\*, diced tomatoes\*, chopped peppers★)

Strawberries, frozen cup\*

#### 1% Milk or Fat-Free Milk

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Foods highlighted in yellow\* are USDA Foods, foods highlighted in green★ may be purchased through the USDA Department of Defense Fresh Fruit and Vegetable Program (USDA DoD Fresh).

MEAL COMPONENT	HOW USDA FOODS SUPPORT THE NSLP AND SBP REQUIREMENTS
<b>Fruits</b>	<p>USDA offers a variety of fresh, frozen, canned, and dried fruits, which are low in sugar or have no added sugars:</p> <ul style="list-style-type: none"> <li>• Fresh: apples, oranges, pears, other fruits available through the USDA DoD Fresh Fruit and Vegetable Program</li> <li>• Frozen: apples, apricots, blueberries, wild blueberries, tart cherries, sweet cherries, mixed berries, peaches, strawberries</li> <li>• Dried: cherries, cranberries, fruit mix, raisins</li> <li>• Canned fruits in extra-light syrup or water: apple slices, unsweetened applesauce, apricots, mixed fruit, peaches, pears</li> <li>• Juice: 100% orange.</li> </ul>
<b>Vegetables</b>	<p>USDA offers a variety of fresh, frozen, dried, and low-sodium or no-salt-added canned options:</p> <ul style="list-style-type: none"> <li>• Dark green: broccoli, spinach</li> <li>• Red/orange: butternut squash, carrots, sweet potatoes, tomato products</li> <li>• Beans and peas (legumes): black, black-eyed peas, garbanzo, lima, pink, pinto, red kidney, refried, small red, vegetarian</li> <li>• Starchy vegetables: corn, peas, potato products</li> <li>• Other: green beans, pepper/onion blend</li> <li>• Additional options available through USDA DoD Fresh.</li> </ul>
<b>Meats/Meat Alternates</b>	<p>USDA offers a variety of nutrient-dense meats/meat alternates, many of which have lower sodium and fat profiles:</p> <ul style="list-style-type: none"> <li>• Beans and peas (legumes), low-sodium canned and/or dry: black, black-eyed peas, garbanzo, lima, pink, pinto, red kidney, refried, small red, vegetarian</li> <li>• Beef: ground, patties, crumbles, canned</li> <li>• Cheese: American, cheddar, mozzarella, pepper jack</li> <li>• Chicken: cut-up, oven roasted, diced, unseasoned strips, fajita strips, fillet, canned</li> <li>• Eggs: liquid whole, patty</li> <li>• Fish: whole grain-breaded catfish strips and Pollock fish sticks</li> <li>• Nuts/seeds: peanut butter, sunflower seed butter</li> <li>• Pork: leg roast, pulled pork, ham, canned</li> <li>• Turkey: roast, taco filling, smoked deli breast, turkey ham</li> <li>• Yogurt: strawberry, blueberry, vanilla.</li> </ul>

MEAL COMPONENT	HOW USDA FOODS SUPPORT THE NSLP AND SBP REQUIREMENTS
<b>Grains</b>	USDA Foods offers a variety of products that meet the whole grain-rich criteria: <ul style="list-style-type: none"> <li>• Flour: enriched, whole wheat, white whole wheat, white whole wheat/enriched blend</li> <li>• Oats: quick-cook rolled</li> <li>• Pancakes: whole grain</li> <li>• Pasta: enriched spaghetti, whole grain-rich spaghetti, rotini, macaroni, penne</li> <li>• Rice: brown rice, white rice</li> <li>• Tortillas: whole grain.</li> </ul>
<b>Milk</b>	Purchased locally; not provided through USDA Foods.

**USDA Foods Are High Quality, Versatile, and Economical**

USDA Foods offer more than 50 agricultural products and a wide variety of different items and pack sizes. USDA Foods offer school districts flexibility to order products in various package sizes or forms. You can order fresh, canned, frozen and dried, ready-to-serve, and bulk sizes for processing. With so many healthy options available, USDA Foods are versatile and economical.

**USDA Supports American Agriculture**

The USDA Foods program has a dual mission of providing healthy food to nutrition programs while supporting American farmers. All products purchased are grown, processed, and packaged in the United States or its territories. The Nation’s agricultural system supplies a variety of nutritious foods for schools, such as fruits, vegetables, whole grains, meats, fish, eggs, nuts, and dairy products.

**Using USDA Foods to Complement Local Purchasing Efforts**

Because USDA Foods are all produced in the United States, it is possible to order foods produced in your region. For example, Mississippi is the only State that produces significant, commercial quantities of catfish. This means that if a school is in the Southeast, USDA Foods catfish could be local or regional to that school. Likewise, apricots offered through USDA Foods normally come from California, and pears usually originate in the Pacific Northwest, so States in those areas can take advantage of these local products as well.

The USDA Foods website (<https://www.fns.usda.gov/usda-foods/food-purchase-resources>) provides State-of-origin information for previously purchased USDA Foods. However, due to the competitive nature of procurements, USDA cannot provide State-of-origin information prior to ordering. Still, you can check what products USDA often purchases from your State or neighboring States. Just keep in mind future procurements may not follow these trends.

Schools also have the option to use their USDA Foods entitlement dollars to purchase fresh produce through USDA DoD Fresh. DoD contracts with produce suppliers, to distribute fresh products to schools. These contracted vendors offer local products whenever possible. The ordering catalog identifies locally sourced items; vendors can also indicate the State of origin for their products. Several States rely on USDA DoD Fresh produce as an integral part of farm to school efforts.

### **USDA Foods Resources**

The USDA Foods Toolkit (<https://www.fns.usda.gov/usda-fis/usda-foods-toolkit-child-nutrition-programs>) is an online collection of valuable resources. The site can assist you in using USDA Foods. You will also find useful tools for educating the school community about the health and nutrition contributions of USDA Foods. USDA Foods publishes a Foods Available List (<https://www.fns.usda.gov/usda-foods/usda-foods-expected-be-available>) showing items expected to be available each school year. One of many useful features of this document is that vegetables are highlighted by subgroup.

USDA Foods Product Information Sheets (<https://www.fns.usda.gov/usda-fis/usda-foods-product-information-sheets>) are also available for USDA Foods items. The Information Sheets reflect nutrition information, food safety, and preparation tips for all USDA Foods products available for direct delivery.

USDA Foods Database (<https://www.fns.usda.gov/usda-fis/usda-foods-database>) provides vendor-specific nutrition information to States and school districts to inform menu planning decisions and assist school districts in developing menus that are compliant with Federal requirements for school meals.

Contact your State Distributing Agency for more information about the USDA Foods distributed to schools and institutions in your state. A list of the State Contacts may be found on the FNS website: <https://www.fns.usda.gov/contacts/contact-map>.

Additional information may also be found on the FNS USDA Foods in Schools website: <https://www.fns.usda.gov/usda-fis>. For additional questions or comments, please e-mail: [USDAFoods@usda.gov](mailto:USDAFoods@usda.gov).

calculated using the entitlement rate published in the Federal Register annually and are based on the number of lunches served in the previous school year. The number of breakfast meals and after school snacks served is not included in these calculations, but you can still use USDA Foods for both. In a way, you can think of USDA Foods as a different form of currency to support your program.

### Local Products

You can often source seasonal favorites locally. Additionally, some local products are available in all 50 States. Your food distributors and contract management companies may have products to meet your geographic preferences. You can use USDA Foods entitlement dollars to source local fruits and vegetables through USDA DoD Fresh. See *Take a Closer Look* for more information.

### Manufacturers

Manufacturers may develop products to specification for school districts, for example, chili with ground turkey and beans. Additionally, manufacturers may process USDA Foods bulk items into finished products and distribute them directly to school districts.

### Distributors

Distributors offer a variety of products, both name brand and distributors' labeled comparable products. They offer a wide variety of choices and pricing and have facilities to warehouse products until distributed to sites.

### Brokers

Brokers work with manufacturers and distributors to provide product lines to schools. They negotiate sales and share information about new products. Brokers serve as an important link between manufacturers, distributors, and school nutrition programs.

## Geographical Preferences and Sourcing Locally

Do you know you can go directly to the Community Food Systems website (<https://www.fns.usda.gov/cfs/procuring-local-foods>) to learn all you need to know about buying locally produced foods? Take advantage of the information available to you from USDA on Farm to School, Local Foods, and determining geographical preferences.

This is a “short list” of the information you will find:

- *Guide: Procuring Local Foods for Child Nutrition Programs*
- Finding, Buying, Serving Local Foods webinar series
  - Using USDA Foods as Resource to Purchase Local
  - Using USDA DoD Fresh to Purchase Local
- Fact Sheets:
  - 10 Facts About Local Food in Schools (also available in Spanish)
  - Geographic Preference: What It Is and How to Use It
- Resource for Local Producers
- And many more.

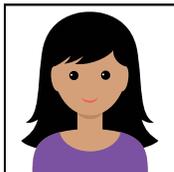
For details about USDA DoD Fresh, visit <https://www.fns.usda.gov/usda-foods/usda-dod-fresh-fruit-and-vegetable-program>. USDA DoD Fresh allocations may be changed throughout the year, and USDA does not impose a cap on the amount of entitlement used through this program.



## Menu Chat

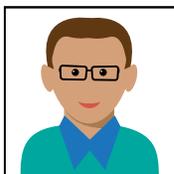


## Hello!



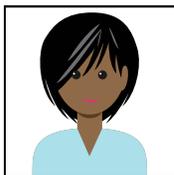
Elena

I wondered if anyone is promoting local foods on your printed menus.



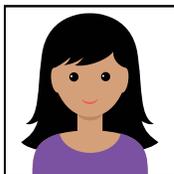
Dylan

Our posted menus have an asterisk next to menu items that we serve that may be locally sourced. I include a note that local foods are our first choice unless supplies are not sufficient for menu needs. Remember, you may be able to include milk and other foods that are local, in addition to produce. Of course, when buying locally we ensure that all procurement requirements, including competition, are met.



Sandra

We live in an agricultural area. I highlight which local orchard our fruit was harvested from for each menu day. We like to promote the connections to local producers. Our patrons see this as high quality. And as others have mentioned, we ensure that all our procurements are conducted competitively.



Elena

**THANK YOU**

Thanks for the tips.

Product type, quality, and quantity information gathered will assist you in writing product specifications for solicitation documents. Providing clear and concise product specifications helps manufacturers, distributors, and brokers meet defined requirements as required for competitive procurement. Use proper forecasting to meet student preferences. When students know their favorite foods will be available, participation may

remain steady or increase. Forecasting well may be hard work, but it helps lead to program success.

**Navigating the Solicitation Process**

Once you know the quality and quantity of menu items needed and have a list of potential sources, the next step is the solicitation process. The solicitation process uses the estimated value of the purchase to determine which procurement

method to follow and the type of contract to award. Then, the solicitation documents are developed. Part of these documents address transparency and full and open competition, such as details on your solicitation process, terms, conditions, evaluation criteria, and scoring procedures. Other documents explain all required provisions suppliers need to consider when developing their response. Solicitation documents also address product quantities and specifications.

### Product Specifications

Product specifications (also known as bid specs) identify the quality of products needed. General terms in a bid specification include:

- Product description – Simple (example: peaches, canned in light syrup) or complex (example: ingredients and crediting for a prepackaged burrito)
- Case-pack and weight: 6/#10 cans, 5 lb container, 48/case, etc.
- Minimum size and/or number of pieces – Each serving must weigh 3.9 ounces (oz) and no more than 4.1 oz, etc.
- Primary ingredients – Black beans; shredded cheddar cheese; 8-inch whole grain-rich tortilla (at least 50 percent of grains are whole, with less than 2 percent non-creditable ingredients)
- Other, secondary product ingredients – Onions, thickeners, seasonings, etc.
- Nutritional standards for NSLP and SBP
- Food safety requirements, including delivery conditions (refrigerated vehicle), Good Agricultural Practices (GAP) for farm-to-school produce (see the *Take a Closer Look*), Global Trade Item Number (GTIN) (see product traceability in Inventory Management section later in the chapter), and allergen labeling
- Ingredient preferences for any additional State or local standards
- Quality of products needed.

## Sample Product Specifications

A product description is necessary to explain the product required. Review and update these descriptions each solicitation cycle:

**Basic products** may require a brief description that includes Standard of Identity (SOI), quality grade, and pack size.

Example: Cut Green Beans, grade “B” or better, low-sodium; 6/#10 can

Example: Fruit Cocktail, grade “B” or better, light syrup or juice pack; 6/#10 can

**Single-ingredient foods**, such as produce and graded meat, require a brief explanation.

Example: Ground beef, no more than 10% fat, frozen 5 pound chub, like IMP #136

Example: Apples, red delicious, U.S. Fancy, 125-138 count

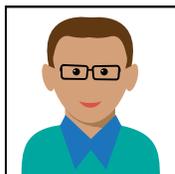
**Processed foods** are more involved. You may include a “brand name” but need to include the wording “preapproved equivalent” to maintain free and open competition.

Example: XYZ Brand® 6 inches Mini, #12345, 96/case; 2 oz eq grains (whole grain-rich), 2 oz eq M/MA; 1/8 c red/orange vegetable; Smart Snacks eligible preferred; or *preapproved equivalent*



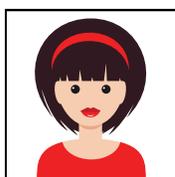
Menu Chat ⓘ ⌘ ✉ 🔄

Hi friends,



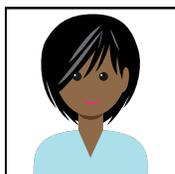
Dylan

Do you have any tips for the annual solicitation process?



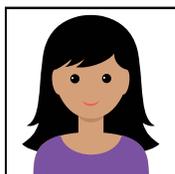
Lin

We carefully review our previous year's specifications for product descriptions and item numbers each year. It helps us remove products we no longer menu, add updates in product codes, and add new items now available on the market. Additionally, we can identify whether we need to procure different items to help meet meal pattern requirements. It also develops good relationships with our suppliers; they are not bidding on products we do not intend to menu.



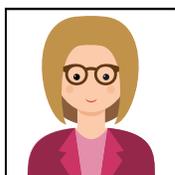
Sandra

Keeping a spreadsheet of the dietary specifications of our menu items, such as grams of sodium, helps not only in menu planning, but in the solicitation process. We make sure that we list the sodium level for canned vegetables in our bid. USDA Foods are low sodium so we want a similar product when we need to purchase more to meet menu needs. Sometimes a frozen vegetable is more economical.



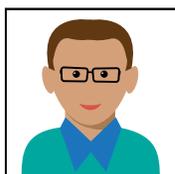
Elena

Regarding ways to procure the best-tasting foods that meet dietary specifications, we attend school meal program trade shows to identify new products not currently available through our purchasing cooperative, and speak with our food distributors about adding these and other lower sodium products to be available for our next solicitation. Since our five-district co-op formed 3 years ago, we have seen reduced prices, greater quality, and better solicitations than we could have created on our own.



Megan

Yes, a food-buying cooperative helped our smaller district tremendously with not only purchasing power, but also in getting more bids to choose from, sharing ideas from trade shows we attended, and streamlining our purchasing process.



Dylan

**THANK YOU**

Thanks for the ideas! I usually copy my document from the previous year; I do need to look for items we will not use the following year and delete them. I will also consider attending more trade shows and joining a co-op. Thanks for helping me improve my process.

Your product specifications also need to support the meal pattern requirements and dietary specifications of the NSLP and SBP. The requirements were covered in chapter 2. Here is a summary of the information to include on your product specifications. General information needed for all food products:

- Nutrition Facts label or nutrition information per serving including at a minimum the calories, sodium content in milligrams (mg), saturated fat in grams, and *trans* fat at 0 grams (<0.5 grams) per serving; any products labeled with *trans* fat from a natural source, such as meat or dairy, must have a product statement verifying source of *trans* fat.

- Verification that all food items are commodities or products of the United States or territories: no foreign source foods, unless the SFA provides an exception.
- Component contributions can be documented by a CN label for eligible processed products.
- Component contributions can also be documented by a PFS for meats/meat alternates, grains, fruits, and vegetables.
- In addition, the FBG can serve as documentation for component contributions for the food items listed in the FBG.
- Complete ingredient statements for all products with common allergens listed.

Examples of specifications to request for each component group include:

## Nutrition Facts Label

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving size</b>	<b>2/3 cup (55g)</b>
<b>Amount per serving</b>	
<b>Calories</b>	<b>230</b>
<b>% Daily Value*</b>	
<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 1g	<b>5%</b>
<i>Trans</i> Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>13%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 12g	
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b> 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	



*Highlighted portions are required to be included in Product Specifications.*



### Ingredient Statement with Common Allergens

Common allergens are highlighted

**100% WHOLE WHEAT BREAD**

---

**INGREDIENTS:** WATER, 100% WHOLE WHEAT FLOUR, WHEAT GLUTEN, YEAST, BROWN SUGAR, CONTAINS 2% OR LESS OF THE FOLLOWING: MOLASSES, SALT, DOUGH CONDITIONERS (MONO & DIGLYCERIDES, SODIUM STEAROYL LACTYLATE, ETHOXYLATED MONO- DIGLYCERIDES, ASCORBIC ACID, CALCIUM PEROXIDE, AZODICARBONAMIDE), CALCIUM PROPIONATE (TO PREVENT SPOILAGE), GUAR GUM, YEAST NUTRIENTS (CALCIUM SULFATE, CALCIUM CARBONATE, AMMONIUM SULFATE), FUMARIC ACID, WHEAT STARCH, PALM OIL, SOY LECITHIN.

**CONTAINS: WHEAT, SOY.**

### CN Label

**1 Chicken Stir-Fry Bowl**

Ingredient Statement:

**2** Chicken, brown rice, broccoli, red peppers, carrots, onions, water, olive oil, soy sauce, spices.

**3 CN**

XXXXXX

Each 4.50 oz. Chicken Stir-Fry Bowl provides 1.50 oz. equivalent meat, 1.00 oz. equivalent grains, ¼ cup dark green vegetable, ¼ cup red/orange vegetable, and ⅛ cup other vegetable for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 09/25).

**CN**

**Net Wt.:** 18 pounds

**CN**

**4**

**Chicken Wok Company**  
1234 Kluck Street • Poultry, PA 1235

- 1** Product Name
- 2** Ingredient Statement
- 3** CN Logo
- 4** Inspection Legend

#### CN Label Requirements

It is important to know, the CN Logo (the box with CN on each side that surrounds the meal pattern contribution statement) is one of the four integral parts of a label, which includes the product name, ingredient statement, and inspection legend. All four parts must be on the product carton in order for the CN label to be valid.

### All Component Food Groups

- Commodity of the United States and/or processed in the United States and contain over 51 percent of its agricultural food component from the United States.

### Fluid Milk

- Pasteurized and fortified with vitamins A and D, and local standards met
- Unflavored or flavored fat-free and 1% (low-fat)
- Pre-portioned pack matches volume desired, 8-fluid-ounce for meals; a la carte portions no larger than 8-fluid-ounce for elementary schools and 12-fluid-ounce for middle schools and high schools to meet Smart Snacks In School (SSIS) Nutrition Standards
- Documentation for milk substitutes showing nutrition equivalency.

### Fruits

- Packed in juice, water, or light syrup for canned fruit
- 100% fruit juice; a la carte portions no larger than 8-fluid-ounce for elementary schools and 12-fluid-ounce for middle schools and high schools to meet SSIS Nutrition Standards.

### Vegetables

- Pre-portioned pack matches volume desired, such as ¼ cup baby carrots per package
- Low-sodium canned vegetables (to match USDA Foods for secondary product source)
- A PFS, as appropriate, which can be especially helpful for blended vegetable products to determine how each vegetable credits by subgroup
- 100% vegetable juice; a la carte portions no larger than 8-fluid-ounce for elementary schools and 12-fluid-ounce for middle schools and high schools to meet SSIS Nutrition Standards.

### Grains

- Must be made from grains that are enriched, whole grain or meet the whole grain-rich criteria: a blend of whole grain meal and/or flour and enriched meal and/or flour of which as least 50 percent is whole grain with remaining grains, if any, being enriched
- Ingredient statement including documentation that product has less than 2 percent of non-creditable grain fractions, as needed
- A PFS, as appropriate, or a CN label, if the grain item is combined with a meat/meat alternate for processed products
- A la carte items meet Smart Snacks criteria for entrees and sides (calories, sodium, total fat, saturated fat, *trans* fat, and total sugar), including whole grain-rich criteria.

### Meats/Meat Alternates

- A CN label or
- A PFS with Alternate Protein Product (APP) documentation, if needed, or
- A description as listed in the FBG that provides the Meats/Meat Alternates (M/MA) meal contribution.
- A la carte items meet Smart Snacks criteria for entrees and sides (calories, sodium, total fat, saturated fat, *trans* fat, and total sugar).

Check Appendix 5.A for PFS templates for grains, M/MA, and vegetables and fruits. In the Additional Resources section, beginning on page 191 you can find links to PFS templates for all components, as well as frequently asked questions about APP. Smart Snacks in School Nutrition Standards are found in Appendix 3.B. If your district or State has stricter criteria, be sure to follow those criteria. The examples of product labels in this chapter are highlighted to show the location of required information.

You may also need additional product specifications to accommodate diet-related disabilities or menu modifications. Use your district policies for guidance.

**Food Safety Practices of Suppliers**

Supplier food safety practices need to be considered before awarding a contract. During the solicitation process, visit prospective suppliers to observe their warehouse cleanliness and food safety program. All suppliers should have food safety documentation, such as Hazard Analysis and Critical Control Point (HACCP) plans, for their operations. Verify the cleanliness and temperatures of suppliers' warehouse refrigeration, freezers, delivery docks, and dry goods storage areas.

**Informal and Formal Procurement Methods**

Your procurement must always achieve full and open competition. Federal, State, and SFA standards and policies will direct the type of procurement methods, informal and formal, required.

Informal methods are relatively simple, depending on the value of the purchase. Purchases below the micro-purchase threshold (aggregate of \$10,000 or less) must be reasonably and equitably distributed among all qualified sources. These may include purchases during emergencies or for small quantities from vendors with a purchase order agreement in place. For purchases above \$10,000 and below the simplified acquisition threshold (\$250,000 for Federal, or most restrictive State or local threshold), simple procedures apply. To the maximum extent practicable, the non-Federal entity should distribute micropurchases equitably among qualified suppliers. If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources as determined appropriate by the SFA. You may obtain price quotes via email, catalogues, orally, in person, by phone, etc.

When the expected total cost of products exceeds the simplified acquisition threshold, formal procedures are required. Formal procedures require the use of one of two methods: solicitation of sealed bids using an invitation for bids (IFB), or solicitation of competitive proposals using a request for proposals (RFP). Remember, all purchases must be competitive. Be sure to specify if you want suppliers to submit sealed bids or proposals, and include the type of contract to be awarded: fixed-price or cost-reimbursable.

**An IFB:**

- Is publicly solicited
- Requires complete product specifications and service descriptions
- Awards contract based on lowest price
- Results in a firm, fixed-price contract.

You may choose an IFB solicitation process if all products or services require similar specifications and price is the only difference. To consider factors in addition to price, you will use an RFP process.

**An RFP:**

- Must be publicized
- Identifies all evaluation factors and their relative importance
- Defines terms and conditions of the contract
- Asks respondents to state how they will accomplish services requested
- Considers cost as the primary factor, evaluation criteria, and scoring when determining the contract award
- Results in a fixed-price or cost-reimbursable contract.

If you choose an IFB, only a firm, fixed-price contract may be awarded. A firm, fixed-price contract may require a fixed price for a period and may include a cost adjustment tied to a standard index, such as the Consumer Price Index (CPI). When choosing an RFP, you may have a firm, fixed-price contract with or without price adjustments tied to a standard index, or you may use a cost-reimbursable contract.

**Fixed-Price Contract:**

- States price during the life of the contract, with or without a price adjustment tied to a standard index (up or down) at stated times/frequencies
- Increases risk to the supplier and may result in higher bid or proposal price
- Requires suppliers to submit sealed bids or competitive proposals.

**Cost-Reimbursable Contract:**

- Stipulates that prices are at-cost plus a fixed fee
- Decreases the risk for suppliers to control the cost of goods
- Requires that allowable costs be net of all rebates, discounts, and other credits for payment from the nonprofit school food service account.

Because the price is set with fixed-price contracts, either party may end up absorbing costs when market prices change unless the solicitation and contract includes a cost adjustment tied to an index. School nutrition programs may use cost-reimbursable contracts. Market prices drive cost-

reimbursable contracts. State and local policies may vary regarding the use of this contract type.

Solicitations for contracts should include complete lists of food and supplies needed from a primary distributor. However, the solicitation and contract may include a provision for special purchases when needed. After identifying special needs, follow proper procurement processes. Informal procurement methods may apply and allow you to procure these items competitively from primary distributors or other sources. For example, you may need separate contracts for milk, bread, and produce as these items are perishable, and not all primary distributors provide these products.

*Continued on page 181*

**Procurement and Produce – Food Safety Considerations**

Food safety is important during all phases in your school nutrition program. Produce requires special attention as you have learned in previous chapters. Part of the procurement process involves monitoring the food safety of local producers and produce suppliers.

The USDA's Verifying On-Farm Food Safety resource (<https://www.fns.usda.gov/ofs/verifying-farm-food-safety>) gives an overview of food safety programs followed by local farmers. Farms may be certified in Good Agricultural Practices (GAP) and Good Handling Practices (GHP). USDA has a school-specific resource to help you with Farm to School and local producers. If your schools have gardens for school meal use, share this information with those in charge.

Produce Safety University is a 1-week training course, developed by USDA's FNS and AMS, which is designed to help school foodservice staff identify and manage food safety risks associated with fresh produce (<https://www.fns.usda.gov/produce-safety-university>).

The Institute of Child Nutrition has compiled an extensive list of online resources that address food safety aspects of product procurement (<https://theicn.org/icn-resources-a-z/produce-safety#>), including training on mock health inspections of produce in a school nutrition operation.

How produce is handled by both your vendors' delivery staff and your school staff is extremely important to maintaining food safety. Many schools now use packaged, pre-cut produce; it *must* be refrigerated at 41 °F or colder. Use the *Food-Safe Schools Action Guide* (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>) Produce Safety Checklist to assess your procurement processes from sourcing to storing. If you find an area that needs attention, use these resources to update your food safety program.





### Procurement Options to Fit District and Regional Needs

Melinda Bonner, M.B.A., R.D., S.N.S., Child Nutrition Program director, Hoover City Schools, uses several procurement options to access the widest variety of products for the best prices. The district contracts through Alabama’s State procurement system, but also independently bids for bread, milk, and produce annually, using the State’s contract guidelines. These independent bids provide:

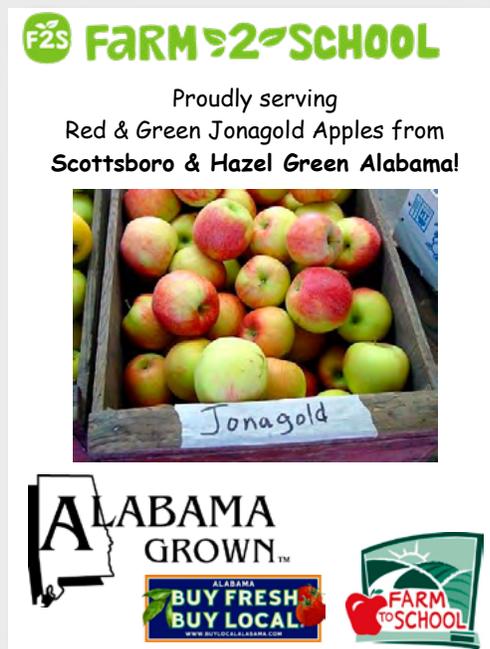
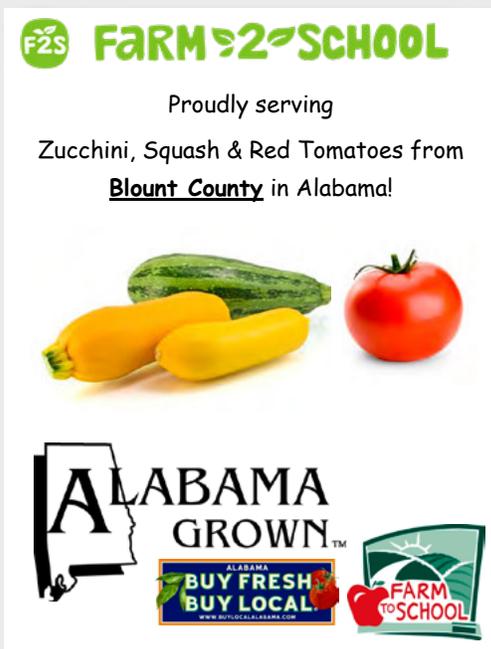
**School District:**  
Hoover City Schools

**Located:**  
Hoover, Alabama

**Enrollment:**  
13,900

**Website:**  
[www.hoovercityschools.net/](http://www.hoovercityschools.net/)

- Opportunity to include local dairy
- Flexibility to source local produce
- Seasonal options for produce.



Hoover City Schools are able to provide wide menu variety with a mix of procurement practices, including locally sourced produce.

Menu Chat



Hi everyone!



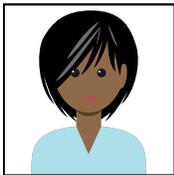
Lin

I have heard about buying cooperatives. Does anyone have experience with one?



Megan

We had difficulty accessing the variety of whole grain-rich options we wanted until we joined together with other districts to create a buying cooperative. Together we have sufficient volume which results in lower prices. Plus we can share menu ideas. I enjoy the support from the group. We made sure, however, that when joining the buying cooperative, we were still following proper procurement requirements.



Sandra

I agree, besides the financial benefits to our program, the idea sharing with other districts is a benefit to me. Because we use many of the same products, we can share ideas on new menu items or recipes. We have also participated in procurement training as a group.



Lin

**THANK YOU**

Thanks so much! I am going to look into this option.

In general, when contracts cover a longer period of time (semester or school year), the result is lower costs due to higher quantities. Smaller school districts may not use sufficient volume in their food service to command lower prices. However, when smaller districts join together to create a purchasing cooperative (co-op), one solicitation includes all districts. The combined quantities, and potentially more vendors to choose from, often result in lower costs due to volume prices saving money for all co-op members. Some States maintain statewide purchase agreements in which smaller districts may participate. Check with your State agency whether this is an option.

Additional information on IFBs and RFPs is available in ICN’s *Introduction to School Nutrition Leadership: Procurement and Inventory* (<https://theicn.org/icn-resources-a-z/introduction-to-school-nutrition-leadership>).

**Award the Contract**

Your written procurement procedures guide how to evaluate a solicitation and award a contract. Once the contract is awarded, monitoring begins. It is essential to monitor the contract to verify the right products are ordered and received at the right price. Monitoring also includes receiving products at delivery, as well as monitoring food and supply costs by physical or perpetual inventory.

Now that you’ve learned about the procurement process, let’s turn to inventory management, including ordering and receiving. An effective inventory management system will provide cost control throughout your school nutrition program.



**School District:**  
Rose Hill Unified  
School District 394

**Located:**  
Rose Hill, Kansas

**Enrollment:**  
1,700

**Website:**  
[www.usd394.com](http://www.usd394.com)

**Purchasing Cooperative Generates Savings for Rural Schools**

South central Kansas is a sparsely populated rural area. Because of small sizes and remoteness, area school districts had challenges finding economical suppliers. The Kansas School Food Purchasing Association started a purchasing cooperative (co-op) of school districts located in south central Kansas. The co-op has grown to 10 school districts from the original 5. Jeanne Munsell, food service director, Rose Hill School District, oversees the co-op. The co-op has experienced savings of \$5.00 - \$20.00 per case, due to the 10 school districts bidding together. Rose Hill serves 1,000 meals daily and collectively the co-op represents 15,000 meals daily. The co-op provides additional menu flexibility meeting:

- Student preferences
- Meal component needs
- Dietary specifications.



**Jeanne Munsell, food service director of Rose Hill School District, stands beside foods purchased through the Kansas School Food Purchasing Association**

**INVENTORY MANAGEMENT**

The primary focus of an inventory management system is maintaining high-quality food while controlling costs. Food safety and food security are additional concerns for inventory management. To address food safety and security issues, you must be able to trace food from the source through consumption or disposal.

Key steps in inventory management are:

- Projecting your food needs
- Knowing where and how much food is on hand
- Practicing First In, First Out (FIFO) method of inventory management
- Controlling waste, theft, and loss
- Maintaining sufficient inventory for meal production without overstocking
- Being able to trace food within district storage facilities and back to its source
- Receiving and storing food safely.

Your staff conducts a physical inventory at the same time each inventory period (often at the end of each month). Perpetual inventory tracks on an on-going basis, often electronically. This ongoing tracking is based on products received and removed from inventory for use in meal preparation and service.

Completing a monthly physical inventory helps determine the cost of products used for the month. After a physical count of inventory, you can determine the financial value of inventory available during the month. To do this, add the ending inventory value from the prior month to the cost of goods (food products and supplies) purchased during the current month. The total is the value of inventory available during the month. Then subtract the value of the current end-of-month inventory from the total value. The difference is the cost of goods used for the month. Example:

January ending inventory	\$34,000.00
February purchases	<u>+ \$44,000.00</u>
	\$78,000.00
February ending inventory	<u>-\$35,000.00</u>
Cost of goods for February	\$43,000.00

Perpetual inventory provides the cost of goods on demand. With perpetual inventory, you still need to perform a physical inventory periodically to verify product counts. Your SFA's policies may require a specific inventory management tool. Monitoring inventory costs leads to a better understanding of food and supply expenses.

The ordering process requires that you determine food and supplies needed to produce the menu planned for each week. The forecasted quantities used during the solicitation process are helpful. Check average daily participation and production records for current trends. Review standardized recipes for as purchased (AP) and edible portion (EP) information to calculate the volume of each product needed. After reviewing current on-hand inventory levels, order only the products needed for the menu week.

Ordering while production is in process means you are practicing just in time (JIT) delivery. JIT delivery involves reviewing inventory on hand and estimating quantities needed prior to the next delivery. This approach helps prevent overstocking. Overstocking can lead to inventory loss and increased food costs.

Delivery schedules for products will be set by the terms and conditions in the solicitation and vendor contracts. This schedule allows your staff to plan receiving duties for a specific day and time. Depending on your usage and storage capacity, fresh products (dairy, produce, bread, etc.) may require deliveries more frequently than weekly. Be sure to follow the schedule listed in your solicitation and contracts. Adding an additional day not in your contract schedule, also called an off-day delivery, may increase costs.



**School District:**  
Federal Way  
Public Schools

**Located:**  
Federal Way,  
Washington

**Enrollment:**  
21,800

**Website:**  
[www.fwps.org](http://www.fwps.org)

## ***Effective Inventory Management Approaches to Maximize Dollars***

Federal Way Public Schools have integrated an electronic barcode system for inventory and software generated ordering. Mary Asplund, R.D., director of Nutrition Services, reports these approaches have greatly reduced labor hours for receiving, ordering, and tracking products for the two semitruck loads received weekly and the USDA Foods semitruck loads each month. Menu writing efficiency increased and mistakes in the prior inventory program disappeared.

Barcoding inventory has increased organization of the warehouse, increased efficiency and accuracy of inventory, enabled auto-generated suggested orders, and streamlined quick updates subsequent to distributor product or USDA Foods

changes. Having an exact picture of current inventory readily available by scan translates to accurate product identification and nutritional information on menu items. The improved ordering and receiving has also prevented outages at school kitchens.

More staff are able to place orders because of extremely detailed instructions that explain the entire ordering process. The department has been strengthened because it does not rely on a single individual to understand and place orders, or track inventory.

The amount of time spent ordering commercial products alone has decreased from 16 hours per week to 4. That is a reduction of 75 percent in labor hours from the district's previous non-automated process.



**Through an electronic barcode system and software-generated ordering, Federal Way Public Schools have improved inventory management.**

**Product Traceability**

Electronic inventory systems allow you to trace products easily from farm to table. Food manufacturers have adopted a barcode that is scanned during receiving. You have seen the Universal Product Code (UPC) on products in the grocery store. The Global Trade Item Number (GTIN) is to food service what the UPC is to retail groceries. Your procurement program should request GTIN technology during the solicitation process. Regardless of whether you have an electronic inventory system, include GTINs in your inventory management. GTIN allows traceability

in case of recalls or other problems with a product and allows verification of compliance with the requirement to buy domestic commodities and products to the maximum extent practicable.

Below are GTIN samples. The GTIN is a list of numbers that provide information on the product. The GTIN appears as a barcode on all food packaging.

Product traceability is now a critical aspect of inventory management. It is another food-safe practice that supports school communities' commitment to a culture of food safety.

**Examples of Global Trade Item Numbers**

**GS1 ITF-14 Barcode**

Packages inside a carton or case will have a different item reference number.



0 00 38000 03665 1



(01) 1 0049485 05250 7 (10) 10036

**GS1-128 Barcode**

with application identifiers. This one shows a lot number of 10036.

**GS1 ITF-14 Barcode**

Packages inside the carton or case will have the same item reference numbers.



1 00 18000 27852 4

### Food-Safe Receiving and Storing

Standard operating procedures (SOPs) provide safeguards for food and supplies during receiving and storage. SOPs for receiving provide strict guidelines for your vendor and team during the delivery. Storage SOPs assure proper and safe processes after receipt. If you use a central warehouse, you will need additional SOPs.

Vendors must:

- Maintain clean vehicles, attire, and equipment.
- Handle food properly.
- Maintain appropriate food temperatures.
- Accept damaged or otherwise rejected products back with credit.
- Reflect GTIN on invoices.

Your team must:

- Maintain clean receiving and storage areas.
- Check delivery vehicles for cleanliness and temperature control.
- Verify product quality, temperatures, and origin during receiving.
- Store toxic and poisonous materials separate from food supplies.
- Avoid bare hand contact with ready-to-eat foods.
- Verify that invoices and purchase orders reflect GTIN.
- Keep labels and any product Safety Data Sheets (SDS) you have received.

Record the delivery date on food packages at the time of delivery. Remove canned goods from cardboard boxes before storing, but *be sure to note the delivery date on each can.*

If you have an offsite warehouse, be sure to control access to your storage facility both for food safety and loss, or theft prevention reasons. Your storage system SOPs should include inventory procedures for traceability in the event of a food recall.

Your receiving staff should monitor safe food handling practices during all deliveries. They should monitor:

- Delivery personnel and vehicle cleanliness
- Food temperatures.

Your staff will check and record temperatures during delivery to confirm cold food is cold (41 °F or lower), frozen food is frozen (0 °F or lower), no ice crystals are present in frozen products, no damaged products are received, and ensure chemicals are separated from food products in the delivery truck.

Storage areas must meet food safety guidelines. Store foods at appropriate temperatures to prevent spoilage or loss:

- Refrigeration, 41 °F or lower
- Freezers, 0 °F or lower
- Dry goods, approximately 50–70 °F.

Food should be stored 6 inches or more off the floor, 6 inches below the ceiling, and away from walls. Check with your health and safety authorities, because local requirements may differ. Chemicals must be stored separately from food and properly marked.

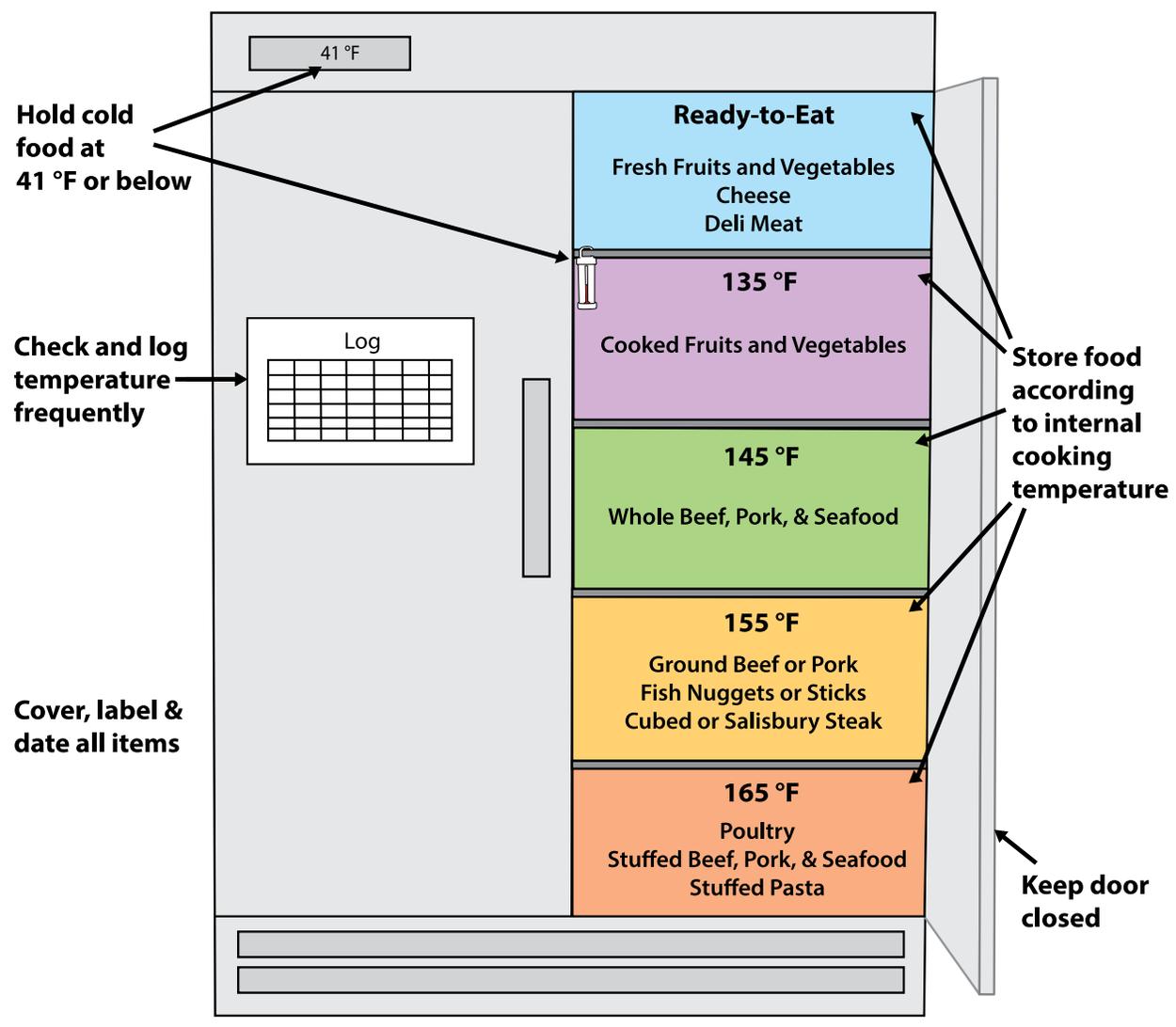
Follow proper refrigerator storage hierarchy (top to bottom shelf), based on the recommended cooking temperatures.

Practicing food-safe habits throughout the school nutrition program is necessary to safeguard the food supply during purchasing, receiving, storage, preparation, holding, and service. Be sure to follow any State or local requirements.



**As stated above, always practice First In, First Out (FIFO) storage. FIFO means using old inventory before using new inventory.**

# Refrigerate for Safety



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03/2017

Institute of Child Nutrition. (2017). Refrigerate for safety. Retrieved from <https://theicn.org/icn-resources-a-z/food-safety>.

### Handling a Food Recall

The SOP for a food recall requires that your team follow specific steps to help prevent foodborne illness when a food is recalled. *Your team must:*

- Electronically scan for the recalled GTIN in all areas or use an appropriate approach if scanners are not in place.
- Identify, separate, and store all food recalled from storage, open containers, preparation, and leftovers.
- Mark containers clearly “Do Not Use” and “Do Not Discard” as appropriate.
- Notify team members not to use the recalled product.
- Notify all appropriate local, State, and regional agencies.
- Notify distributors and brokers.
- Follow USDA directives for any recalls of USDA Foods.



### Administrative Review Check – Buy American and Storage

Each SFA is required to ensure that facilities for the handling, storage, and distribution of purchased and donated foods are properly safeguarded against theft, spoilage, and other loss. In addition, the SA must review a variety of foods by component category to assess if the food is produced or processed domestically, and if domestically processed, done so substantially using domestic agricultural commodities.



To determine compliance, the SA must observe the conditions in the onsite, and offsite if applicable, storage facilities of the reviewed schools/SFA. Onsite storage facilities may include freezers, refrigerators, dry goods storage rooms, and other areas. Offsite storage facilities would include SFA contracted or self-operated warehouses. When examining the applicable storage facilities, the SA must be mindful of the following rules regarding proper storage practices. These statements are not exhaustive, and the SA should use its own discretion regarding other potentially harmful observations related to proper food storage:

- Temperature is appropriate for the applicable equipment (e.g., freezer, refrigerator, milk cooler).
- Food is stored 6 inches from the ceiling and 6 inches off the floor.
- The food storage facility is clean and neat.
- Canned goods are free from bulges, leaks, and dents.
- Chemicals are clearly labeled and stored away from food and food-related supplies.
- Open bags of food are stored in containers with tight-fitting lids.
- The FIFO (First In, First Out) method of inventory management is used.
- No obvious evidence of pests is present.

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Program, Administrative Review Manual.



Your food recall and food defense SOPs provide instructions on monitoring, corrective action, verification, and recordkeeping to safeguard food. SOPs assist in supporting a strong culture of food safety.

You can tailor the sample SOPs available from ICN to your operation. This resource is available at the ICN Resource Center (<https://theicn.org/>). Also, you can sign up for FDA food recall notices at <https://www.fda.gov/Safety/Recalls/> and notices about significant holds or recalls of commodity foods distributed through FNS programs at <https://www.fns.usda.gov/ofs/usda-food-recall-resources>.

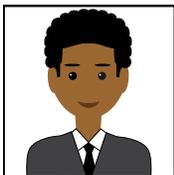
## CHOOSING AND USING EQUIPMENT FOR HEALTHY SCHOOL MEALS

You do not purchase equipment as often as you purchase foods and supplies. However, solicitation processes described for foods and supplies will be followed for equipment, depending on the estimated cost of the item. State contracts may also exist for equipment procurement. Among the factors in considering new equipment is how equipment supports healthy preparation methods. You will find resources on purchasing and selecting equipment at ICN (<https://theicn.org/>).

### Menu Chat

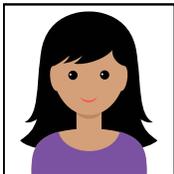


## Hi fellow menu planner!



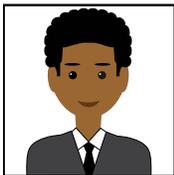
Tyler

We just received a grant for new kitchen equipment through the USDA National School Lunch Program Equipment Assistance Grants and I want to make sure we consider everything before we purchase. Help!



Elena

We were fortunate to receive grant funding for new kitchen equipment. We used the procurement information from the Institute of Child Nutrition to find the right choices for our new preparation methods. It certainly made the process easier.



Tyler

**THANKS!**  
I will contact the Institute today.

Here's a list of some of the equipment that can help you prepare healthy meals. You may find other equipment to be helpful as well.

**Tilting skillets:** These are convenient and fast for braising, pan-frying, sautéing, steaming, and boiling.

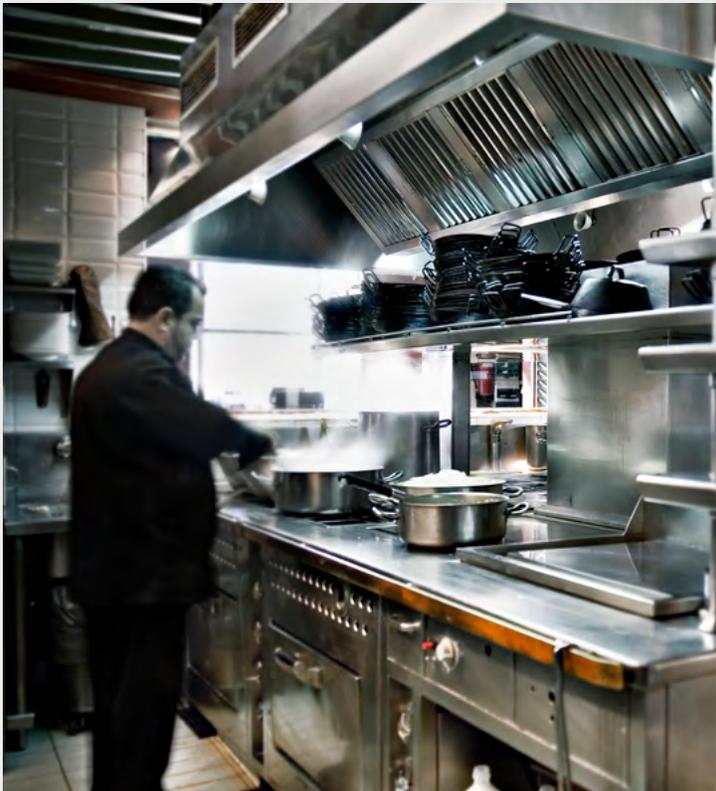
**Steam-jacketed kettles:** Faster and simpler to control than range-top cookers, these are good for soups, stocks, sauces, stews, vegetables, and more.

**Pressure steamers or convection steamers:** Steamers are great for batch-cooking in high-volume school food service. Rice, pastas, and vegetables can be cooked in steamers.

**Convection or conventional ovens:** These are used for baking, roasting, and broiling, all of which are low-fat cooking techniques. When fats in meat are heated to high temperatures, they change from solids to liquids, so the fat drains away.

**Combination (combi) ovens:** These will reheat prepared food without drying it out. They will also roast meats with little shrinkage. They can cook with steam, convection, or both.

**Microwave ovens:** When foods are prepared in a microwave oven, they retain more nutrients than foods that are boiled, baked, or even steamed. This is especially helpful in batch-cooking vegetables. (Microwave ovens are becoming more popular and affordable in school nutrition programs.)



## CONCLUSION

Procurement and inventory management support school nutrition program goals to provide nutritious, great-tasting, and safe food to all customers in a competitive, cost-efficient manner. Wise decisions of what to buy within your district's budget determine the degree of variety and quality your menus will provide. The information in this chapter is an overview of procurement. Use the procurement resources from USDA and ICN to fully develop your knowledge, skills, and abilities in this critical program area.

These are key take-away concepts from this chapter:

- Use your menus to gather product type, quality, and quantity information to develop solicitation documents that support your school nutrition programs' menu, staff, and financial requirements.
- Use clear and concise product specifications to meet menu needs.
- Obtain required documentation from suppliers to support your menus' meal components, dietary specifications, and domestic origin.
- Include USDA Foods, USDA DoD Fresh, and local producers and manufacturers in your mix of suppliers.
- Develop SOPs for ordering, receiving, and storing food and supplies for an efficient, safe, and useful inventory management system.
- Procure and use equipment that supports your program's nutrition goals.
- Use the extensive USDA and ICN procurement resources and training materials.

Procurement and inventory management are important to the continued success of your school nutrition program. A fiscally sound child nutrition program provides the best possible meal experience for students and the school community. In chapter 6, we will cover ways to make school meals the best possible experience for students with disabilities that restrict their diet and other medical or special dietary needs.

**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**

1. When it comes to procurement, what is forecasting and why is it important?
2. Including a marketing guide on a recipe accomplishes what?
3. What are two ways schools can save money when procuring foods for menu items?
4. Product specifications in solicitation documents need to include what information to support the dietary specifications for school meals?
5. What are three key steps in inventory management?

**If you got the answers right, great job! You are ready for the next chapter. If you missed any, review that section of the chapter before moving on to the next chapter.**



## LINKS TO ADDITIONAL RESOURCES

Institute of Child Nutrition, Writing, Updating, and Revising a HACCP-Based Food Safety Plan for Schools, University, MS, 2022 (<https://theicn.org/>).

Institute of Child Nutrition, Introduction to School Nutrition Leadership, University, MS (<https://theicn.org/>).

U.S. Department of Agriculture, USDA Foods: Recall Resources (<https://www.fns.usda.gov/ofs/usda-food-recall-resources>).

U.S. Department of Agriculture, Food and Nutrition Service, U.S. Department of Defense Fresh Fruit and Vegetable Program (<https://www.fns.usda.gov/usda-foods/usda-dod-fresh-fruit-and-vegetable-program>).

U.S. Department of Agriculture, Food and Nutrition Service, Farm to School Program (<https://www.fns.usda.gov/f2s/farm-to-school>).

U.S. Department of Agriculture, Food and Nutrition Service, Community Food Systems – Geographic Preference: What It Is and How to Use It (<https://www.fns.usda.gov/sites/default/files/f2s/GeoPreference.pdf>).

U.S. Department of Agriculture, Food and Nutrition Service, Compliance with and Enforcement of the Buy American Provision in the National School Lunch Program (<https://www.fns.usda.gov/sites/default/files/cn/SP38-2017os.pdf>).

U.S. Department of Agriculture, Food and Nutrition Service, Farm to School Frequently Asked Questions – Food Safety (<https://www.fns.usda.gov/cfs/faqs-food-safety>).

U.S. Department of Agriculture, Food and Nutrition Service, Farm to School Verifying On-Farm Food safety (<https://fns.staging.platform.usda.gov/ofs/verifying-farm-food-safety>).

U.S. Department of Agriculture, Food and Nutrition Service. Produce Safety website (<https://www.fns.usda.gov/produce-safety-university>).

U.S. Department of Agriculture, Food and Nutrition Service, Food Distribution Programs (<https://www.fns.usda.gov/usda-foods>).

U.S. Department of Agriculture, Food and Nutrition Service, Food-Safe Schools Action Guide, Alexandria, VA (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>).

U.S. Department of Agriculture, Food and Nutrition Service, Guidance for Accepting Processed Product Documentation for Meal Pattern Requirements (<https://www.fns.usda.gov/cn/guidance-accepting-processed-product-documentation-meal-pattern-requirements>).

U.S. Department of Agriculture, Food and Nutrition Service, Policy Memo, Administrative Review Process Regarding the Child Nutrition (CN) Label, Watermarked CN Label and Manufacturer's Product Formulation Statement SP27-2015, March 2015 (<https://www.fns.usda.gov/cn/administrative-review-process-regarding-child-nutrition-cn-label>).

U.S. Department of Agriculture, Food and Nutrition Service, Procuring Local Foods for Child Nutrition Programs (<https://www.fns.usda.gov/cfs/procuring-local-foods>).

U.S. Department of Agriculture, Food and Nutrition Service, Product Formulation Statement Documenting Fruits and Vegetables (<https://www.fns.usda.gov/cn/labeling/food-manufacturersindustry>).

U.S. Department of Agriculture, Food and Nutrition Service, Product Formulation Statement for Grains in School Meals (<https://www.fns.usda.gov/cnlabeling/food-manufacturersindustry>).

U.S. Department of Agriculture, Food and Nutrition Service, Product Formulation Statement for Meat/ Meat Alternate Products (<https://www.fns.usda.gov/cnlabeling/food-manufacturersindustry>).

U.S. Department of Agriculture, Food and Nutrition Service, Questions and Answers on Alternate Protein Products (APP) (<https://www.fns.usda.gov/cn/questions-and-answers-alternate-protein-products>).

U.S. Department of Agriculture, Food and Nutrition Service, Reviewer's Checklist for Evaluating Manufacturer Product Formulation Statements (Product Analysis) for Meat/Meat Alternate (M/MA) Products ([https://www.fns.usda.gov/sites/default/files/reviewer\\_checklist.pdf](https://www.fns.usda.gov/sites/default/files/reviewer_checklist.pdf)).

U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual (please contact your State agency for the most current version).

U.S. Department of Agriculture, Food and Nutrition Service, Planning for Farm to School Success - Finding and Buying Local Foods Webinar (<https://youtu.be/Oz8KmhPRM>).

U.S. Department of Agriculture, Food and Nutrition Service, USDA Foods further Processing Fact Sheet (<https://fns.usda.gov/sites/default/files/resource-files/ProcessingFactSheet.pdf>).

U.S. Food and Drug Administration, Recalls, Market Withdrawals and Safety Alerts (<https://www.fda.gov/Safety/Recalls/>).

## APPENDIX ITEMS

**Appendix 5.A** USDA Product Formulation Statement Templates for Documenting Grains, Meats/Meat Alternates, and Vegetables and Fruits in School Meals



# Meal Modifications to Accommodate Students with Disabilities



# Meal Modifications to Accommodate Students With Disabilities

## CH.6

*Students with disabilities that restrict their diets and ability to consume foods must be provided with an equal opportunity to participate in the School Meal Programs. In case of disability, Federal law requires schools to provide reasonable meal modifications for these students. Knowing what steps to take can make a major contribution to the quality of life for your students, no matter what their personal health situation.*

### In this chapter you will learn about:

- Disabilities that restrict the diet and foodborne illness risk.
- Required modifications and documentation needed.
- Differences between a food allergy and a food intolerance.
- Overview of menu planning, food preparation, and other considerations for disabilities that restrict the diet and ability to consume certain foods.

### INTRODUCTION

The menus you and your staff produce are wholesome, flavorful, and nourishing. For some students with disabilities, however, you must modify the menu to provide for the special nutrition requirements they need to grow and thrive. Federal statutes and program regulations *require* that schools provide reasonable meal modifications for individuals with disabilities. Program regulations also *permit* schools to provide meal modifications in nondisability situations. You will need to work with many professionals in the school, from administrators to nurses and classroom teachers. Also, to best serve your students, involve community partners such as parents and local health professionals.

You should review your processes to assure you are following current guidance. Before menus can be modified, you need to:

- Understand how disabilities restrict diets.
- Recognize the laws that require modification.

### DISABILITIES THAT RESTRICT THE DIET

Federal law requires school nutrition programs to make reasonable modifications to program meals to accommodate children with disabilities that restrict the diet and ability to consume certain foods. The Americans with Disabilities Act (ADA) Amendments Act of 2008 made important changes to the meaning and interpretation of the term “disability” to clarify that Congress intends the term “disability” to be broad and inclusive. With the passage of the ADA Amendments Act, most physical and mental impairments will constitute a disability. Additionally, United States Department of Agriculture regulations at 7 CFR 15b require that school food authorities (SFA) ensure equal opportunity for students with disabilities to participate in or benefit from the school feeding programs. The category of disabilities entitled *Major Life Activities* was expanded to include *Major Bodily Functions*.

A disability is a physical or mental impairment that substantially limits major life activities or bodily functions, which include but are not limited to: “caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working.”

The category of *Major Bodily Functions* includes but is not limited to: “functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, cardiovascular, endocrine, and reproductive functions.”

Individuals taking measures to improve or control any conditions recognized as a disability are still considered to have a disability and require a modification.

A physical or mental impairment does not need to be life threatening to constitute a disability. It is enough that it limits a major life activity. For example, digestion is an example of a bodily function that is a major life activity; therefore, a child whose digestion is impaired by lactose intolerance may be considered to have a disability regardless of whether or not milk products cause a student severe distress. Due to these changes, you may see more students identified as having a diet-related disability than were recognized previously.

For additional guidance, see FNS memorandum SP 59-2016, Modifications to Accommodate Disabilities in the School Meal Programs, SP 26-2017 Accommodating Disabilities in the School Meal Programs: Guidance and Questions and Answers (Q&As), (<https://www.fns.usda.gov/cn/accommodating-disabilities-school-meal-programs-guidance-qas>) and Accommodating Children with Disabilities in the School Meal Programs (<https://www.fns.usda.gov/cn/2017-edition-accommodating-children-disabilities-school-meal-programs>).

Direct any questions regarding meal modifications for disabilities to your State agency (SA). SA contact information is available at <https://www.fns.usda.gov/contacts/contact-map>.

### Reasonable Modifications

Per Federal law and USDA regulations, your program is required to make *reasonable* modifications for students with disabilities. A reasonable modification to accommodate a disability involves a change to policies, practices, or procedures that ensures children with disabilities have *equal opportunity to participate in, or benefit from, your meal program*. Per USDA regulations, your program is required to provide notice and information to parents and guardians regarding how to request a reasonable modification and their procedural rights. For additional guidance, please contact your SA or the FNS Civil Rights Division: <https://www.fns.usda.gov/cr/disability-compliance>.

Meal modifications may vary even amongst students with a similar disability diagnosis; hence, each situation should be treated on a case-by-case basis. It is important that you have a dialogue with the student's family to discuss the student's needs and dietary restrictions and work together to develop reasonable modification options. The nature of the disability and age of the child should be considered when developing appropriate modifications.

You may not need to provide elaborate meals that are vastly different from the menus provided to the general student population. Depending on the needs of the child, it may be possible to substitute a food item or plan meals to offer choices that meet the needs of the child within the planned menu. You cannot charge any student with a disability that restricts the diet a higher price for the reimbursable modified meal. Some students may require a medical food (for example, a specialized formula). Depending on product cost and other factors, you may need to purchase the product or the product may be provided to your program for the student. Meal modifications made for a disability that restricts the diet are reimbursable even though they may not meet the meal pattern; however, schools are encouraged to follow the meal pattern to the greatest extent possible. For example, a student with the rare condition Phenylketonuria (PKU) must restrict the amino acid phenylalanine found in high-protein foods; therefore, meals restrict meats/meat alternates (M/MA) and a specialized formula will replace the fluid milk component. In another situation, for a student who must avoid wheat, you could offer a larger portion of brown rice rather than a whole-wheat dinner roll.

Offer Versus Serve may not be used as a means to provide a meal modification in a disability situation. All food components must be made available. For example, if a student has celiac disease and the menu offers a hamburger and bun, then the student must be offered an agreed upon food substitution (e.g., gluten-free bun) per the medical statement, in order to accommodate this disability. It is important to adhere to proper food safety protocols to prevent cross-contamination with other allergen-containing foods. This includes use of separate utensils, gloves, etc. when preparing foods for students with food allergies. For example, use a separate knife for spreading mayonnaise on a gluten-free bun.

Menu planners must also consider how the meal will be offered and served to an individual with a disability. For example, a student with a disability may require finger foods, pureed food, special feeding equipment, or another accommodation to consume the food on a menu. For additional guidance, please contact your SA or the FNS Civil Rights Division: <https://www.fns.usda.gov/cr/disability-compliance>.

### Required Documentation

You must make meal modifications for a disability that does not meet the meal pattern requirements only when a medical statement is provided by a State-licensed healthcare professional authorized to write a medical prescription, such as a physician or nurse practitioner. The medical statement is required to receive reimbursement for the meal and to ensure a safe meal is provided.

If the meal modifications for a disability can be met within your program meal pattern requirements, FNS does not require a medical statement; however, your SA may require a medical statement. The medical statement must include the following:

- Information about the child's physical or mental impairment that is sufficient to allow the SFA to understand how it restricts the child's diet;
- An explanation of what must be done to accommodate the child; and
- The food or foods to be omitted and recommended alternatives, if appropriate.

In some cases, to provide the appropriate modifications, more information may be needed. For example, if the student *requires* caloric modifications or the substitution of a liquid nutritive formula to accommodate a disability, this information must be included in the statement. If the medical statement does not include information regarding appropriate substitutions, SFAs may ask the family to follow up with the health care provider for recommended substitutes.

You must not unduly delay a child's meal modification while waiting for the family to submit a medical statement. In this situation, you must document the initial conversation with the family from when you first learned of the child's need for a modification, and inform families of a standard,

reasonable timeframe for submitting medical statements. School officials should follow up with the family if the requested medical statement is not received and maintain a record of this contact. School officials should diligently continue to follow up with the family until a medical statement is received or the request is rescinded.

If the medical statement does not fully explain the modification needed, you should immediately contact the child's parent or guardian for guidance and request an amended medical statement. However, clarification of the medical statement should not delay you from providing a modified meal for the child.

### NONDISABILITY MEAL MODIFICATIONS

Some students have specific dietary requests, but they do not have a disability that restricts their diet. Your school nutrition program is *not required* but *is permitted* to provide meals modified to students' requests. This decision is a local district decision. However, any modified meal for a nondisability reason must follow the required meal pattern. Your program needs to treat all students with these types of requests equally. While you will decide on the specific changes on a case-by-case basis, you should make the same process available to all students with nondisability meal requests.

### Meal Variety and Personal Preferences

FNS encourages SFAs to provide a variety of foods for children to select from in order to accommodate food preferences; however, you are not required to provide elaborate meals that cater to personal reasons such as lifestyle choices and ethnic preferences. When you provide choices and variety in meals, it is easier for a student with a disability or a personal preference to select a reimbursable meal. You must provide all components and the opportunity to select a complete meal. For example, offer a hamburger and a separate slice of cheese, so the student can choose the hamburger without cheese if desired.

You may make substitutions to a program meal to accommodate a nondisability preference; however, the meal must meet the component and nutrient requirements of the meal pattern in order for a school to claim reimbursement.

## **Managing Disabilities That Restrict the Diet as Part of a Culture of Food Safety**

At Federal Way Public Schools, Mary Asplund, R.D., Director, Nutrition Services, and her team developed standard operating procedures (SOPs) to address disabilities that restrict the diet as part of the district’s culture of food safety. Within the school district community, 130 different languages are spoken. Many kitchen staff, who may have limited English skills, work alone. To promote the safest environment possible, Nutrition Services staff control the process from the first moment they learn of a student’s need for meal modifications for disability reasons. By following step-by-step procedures, they ensure all students and staff members involved in the process are protected, while allowing meals to be personalized for students who may be faced with multiple food restrictions.

Disability modifications are customized through a tightly controlled process involving students, parents, physicians, and school staff. Nutrition Services staff meet face-to-face with every parent and student in the special diet program after obtaining initial information. The team meets with the parent to discuss the program, learn the student’s food disability requirements, and create a draft menu, including National School Lunch Program required information. The parent then takes the draft meal modifications to his/her child’s State-licensed medical professional,\* who reviews and approves the diet order. After receiving the physician-approved diet order, Nutrition Services staff meet with the parent and student together to discuss student responsibilities, and walk the student through the process at the school. The staff and student also discuss individual food likes and dislikes.

Nutrition Services staff also talk with key school staff, such as the lunch server, cashier, nurse, and possibly the principal, counselor, teacher, or office staff, depending upon the type of diet and the maturity of the student. The district maintains a special diets area in its central kitchen with procedures for assembling and checking:

- Food labels are approved by the district’s registered dietitian for all foods on all diets; labels are checked every time a new case is opened.
- Assembly method utilizes rudimentary isolation techniques.
- Special diets are assembled every day.
- Production runs of special diets on food lines occur at the beginning or end of the shift on a cleaned belt. Food is not in contact with machinery. New aprons and new gloves are worn.
- Assembled meals are double-checked by a second trained person.



**School District:**  
Federal Way  
Public Schools

**Located:**  
Federal Way,  
Washington

**Enrollment:**  
21,800

**Website:**  
[www.fwps.org](http://www.fwps.org)



That level of protection transfers from the central kitchen all the way to the serving line. If a student is on a special diet, a notice appears on the point-of-sale screen when the student number is entered, alerting the cashier to check the student's tray for compliance.

Understanding that these students face many nutritional and social challenges, Nutrition Services makes every effort to accommodate student preferences within their disability requirements. Staff may shop at grocery, health, and/or specialty stores to purchase the necessary items. Adhering to SOPs allows staff to customize each diet order, reducing potential mistakes and influencing student acceptability of the meal. Nutrition Services transitions students between elementary and secondary school meals based upon the student's level of personal responsibility.

The district's strong efforts in food safety for students with special diets have gained recognition throughout the region. Mary Asplund, R.D., was awarded "Advocate of the Year" from the Food Allergy Initiative.

\* A licensed physician or, at your State's discretion, a State-licensed health care professional who is authorized to write medical prescriptions under State law.



## WORKING WITH FAMILIES

You are encouraged to work with families who may want to provide special foods for their children. Check your local and State food safety guidance for items provided from home. Work with parents, teachers, and students to assure any perishable items brought from home are safely stored (for example, using insulated containers and ice packs). This is good advice for all foods that students bring from home, including brown bag lunches. It is one more way to create a culture of food safety in your school. See page 206 for additional food safety information.

Another important part of your local process is a periodic review of each student's needs. Although not required, annual updates to each student's information are a best practice. Growing children have nutrition needs that change; for example, some children outgrow allergies. An annual review helps ensure plans meet the student's current needs. In some cases, these needs are temporary.

For example, a student with a wired jaw may have a temporary disability.

FNS does not require you to obtain written documentation from a State-licensed healthcare professional to end a meal modification for a child, but you may request documentation. Check with your SA to see if they require documentation. FNS does recommend that you keep documentation when ending a meal modification. Standard operating procedures (SOPs) are a way to build reviews into your school planning cycle; consider creating one for diet-related disability documentation.

Keep in mind, SFAs are required to take reasonable steps to ensure meaningful access to the school meal programs for people with limited English proficiency and people with disabilities. This includes access to menus and other program materials posted on websites and digital services. For additional guidance, please contact your SA or the FNS Civil Rights Division: <https://www.fns.usda.gov/cr/disability-compliance>.

## FOOD ALLERGIES AND FOOD INTOLERANCES

Do you know the difference between a food allergy and a food intolerance? Many people confuse the two. You will find the answers to this question and more in *The Food Allergy Book, What School Employees Need to Know (The Allergy Book)* ([www.fns.usda.gov/ofs/food-allergy-book-what-school-employees-need-know](http://www.fns.usda.gov/ofs/food-allergy-book-what-school-employees-need-know)). This downloadable reference, available in English and Spanish, is published by the National Education Association Health Information Network, with funding from USDA. The following information is adapted from *The Allergy Book*. If a food allergy or intolerance impacts a major bodily function or other major life activity, then it is considered a disability requiring meal modifications.

### Food Allergy

A food allergy is an abnormal response to a food protein, triggered by the body's immune system. The body mistakenly responds to the protein (the allergen) as if it were harmful. An allergic response to food can range from mild to life-threatening, and individuals may be allergic to more than one food. Strict avoidance of the food allergen is the only way to prevent a reaction. Food allergies may develop in infancy, childhood, or adulthood, and may or may not be outgrown. Most people do not have an allergic reaction the first time they eat a food to which they are allergic. The reaction usually occurs after the second exposure and can be severe.

Food allergy reactions can produce negative health effects in several body systems. Skin, gastrointestinal (GI tract), respiratory (breathing), and cardiovascular (heart and blood pressure) are the main body systems affected. Reactions can happen minutes or hours after exposure to the allergen. See chart on the next page for the most common symptoms.

### Food Intolerance

A food intolerance occurs when the body's digestive tract reacts abnormally to a food. Unlike an allergy, an intolerance does not involve the immune system. However, the symptoms – nausea, vomiting, diarrhea, cramping, and reflux – are very similar to the GI symptoms of an allergic reaction. Symptoms can appear minutes or hours after eating a food that triggers the intolerance.

A common food intolerance is lactose intolerance, which results when the body does not produce enough of the enzyme needed to digest the naturally occurring sugar in milk (lactose). Like allergies, intolerances can also range in severity. People with lactose intolerance can usually consume cheese and yogurt as well as small amounts of milk with meals. Milk treated to break the lactose into the simple sugars glucose and galactose is available (lactose-free milk). Cheese and yogurt are often tolerated when milk is not.

In stark contrast to lactose intolerance, an allergy to a protein in milk means that all forms – milk, cheese, and yogurt – would produce an allergic reaction and must be avoided.

### Most Common Food Allergies

Nine common food allergens account for 90 percent of all allergies. These top nine are foods often served in school meals:

- Milk
- Eggs
- Peanuts
- Soy
- Wheat
- Tree nuts (example: almonds, walnuts, pecans)
- Fish
- Sesame
- Shellfish (example: crab, lobster, shrimp).

Food labels will usually identify if one of the major nine allergens is an ingredient. It is possible to be allergic to other foods; over 170 foods have an allergen history. Some reactions can occur from skin contact or inhaling small pieces of the food, although these are rare.

*The Allergy Book* is an easy-to-read resource. It explains the important role everyone in the school community plays in keeping children safe from food allergens. Use this tool to create a culture of food safety schoolwide.

Given that food allergies and intolerances are specific to foods, each student's needs will differ. A review of all meal components for possible dietary modifications is helpful.

### Potential Reactions to Food Allergens

BODY SYSTEM	COMMON SYMPTOMS (not all-inclusive)
<b>Skin</b>	Itchy or flushed skin, rash, hives, or swollen lips, tongue, eyes
<b>Gastrointestinal</b>	Nausea, vomiting, diarrhea, cramping, reflux
<b>Respiratory</b>	Difficulty breathing or swallowing, shortness of breath, wheezing, sneezing, coughing, nasal congestion, red and/or itchy watery eyes
<b>Cardiovascular</b>	Dizziness, weak pulse, confusion, fainting, blue or pale skin color, sudden drop of blood pressure, unconsciousness

### COMMON MEAL COMPONENT MODIFICATIONS

From a general menu planning perspective, you will consider aspects of each meal component when making common changes for dietary restrictions. Many of these changes involve allergy and intolerance modifications. Your team may need to modify the texture of foods for a student with swallowing difficulties. Let's review each meal component for a big-picture view of modifications. Please note this is not an exhaustive list of all possible changes.

#### Fluid Milk

Milk is one of the top nine common allergens. Students with milk allergies need to avoid all milk and foods made with milk, such as yogurt and cheese. Many foods contain milk-derived ingredients added during processing (for example, casein, whey, etc.); read labels carefully.

Lactose intolerance is another health condition associated with milk and may be diagnosed as a disability. Your program can offer lactose-reduced and lactose-free versions of allowable fluid milk choices without the need for a medical statement, as permitted by your State agency.

Schools have the option to make a milk accommodation for students without disabilities. At the discretion of the school district, schools may provide nondairy, fluid milk substitutes that meet

the FNS nutrition standards for nondairy, fluid milk substitutes with a written request from the parent or guardian, for students without disabilities. See chapter 2 for details.

#### Fruits

Fruits are not among the nine most common food allergens. While rare, fruit allergies do exist. For example, kiwi is associated with oral allergy syndrome. Symptoms can appear on contact, including burning, itching, and swelling of the lips, mouth, and tongue. Individuals allergic to kiwi may also be at risk for latex allergies, although the relationship is unclear. Use nonlatex disposable gloves when latex allergies exist.

Some people born with rare errors of metabolism such as Hereditary Fructose Intolerance may require removal of all fructose, a sugar found naturally in fruit (as well as table sugar), from the diet. Many processed foods contain high fructose corn syrup, which also needs to be avoided with this intolerance. Review ingredient lists for sources of fructose.

Some diets may require texture modification (mashed, ground, puréed, etc.) of fruits. The need for texture modification may be very specific for each student and food. Try to include as much of the regular menu as possible for ground or puréed diets. For example, cantaloupe or honeydew melon can be pureed into a fruit soup.

## Providing Nutrient and Allergen Information Online for Families and Health Professionals

Wichita Public Schools (WPS) provides information on allergens, calories, and carbohydrate content of menu items on its district website. Megan Fogarty, R.D., manages special nutrition needs for WPS and maintains yearly updates of a color-coded list of menu items with common allergens or ingredients of concern for their district noted. Each year, Ms. Fogarty collects information from manufacturers to update the list. The resource provides the menu item name with common food names, types of meat, and unusual ingredients noted, such as

- Maple Waffle (contains wheat/gluten, egg, milk)
- Fish Patty Melt (Trout) (contains cheese) served on bun
- Fruity Oat Ring Cereal (contains pear).

“Whether needing to know carbohydrate or calorie values in a snap, or food allergen status of specific foods served, this tool quickly empowers the parents, students, and school nurses caring for complex health needs of students.”

– Nurse, Wichita Public Schools

Meal modifications for allergy disabilities are entered into the online meal modification form. The form’s design also captures details, such as if a child with soy allergy also avoids soy lecithin or soybean oil (two items that are safe for most children with soy allergy, according to research).

WPS also posts simplified forms and guidance for requesting school meal modifications. Making this information easily accessible to the school community is one way the school district supports a culture of food safety related to special nutrition needs. The district has a simple discontinuation request form developed by the Kansas State Department of Education, Child Nutrition and Wellness, for use when special nutrition is no longer needed. A discontinuation form is not required by FNS. Check with your SA to see if they require this documentation. See Appendix 6.A and 6.B for sample forms you may use in your program.



**School District:**  
Wichita Public  
Schools

**Located:**  
Wichita, Kansas

**Enrollment:**  
51,100

**Website:**  
[www.usd259.org](http://www.usd259.org)

### Wichita Public Schools Calorie, Carbohydrate, and Allergen List Current School Year

This information is correct to the best of our knowledge provided from manufacturer’s labels and nutrition computer database. Manufacturers may change product formulation without notification. For questions about allergens in foods, please call the nutrition services office.

? - Processed in a facility or May contain allergen as stated on product label

\*\*\* - Served in Middle and/or High School

+MFS - Modified Food Starch \*HFCS - High Fructose Corn Syrup \*Monosodium Glutamate

MENU ITEM	ALSO CONTAINS	Serving Size	Calories	Carbohydrate	Wheat/Gluten	Nut	Egg	Milk	Fish	Soy	Corn	Red # 40	Cinnamon	Sesame
Waffle Maple	barley, palm oil, yeast	1 waffle	240	41	x		x	?						
Fish Patty Melt (trout & cheese)	Rice flour, phosphates, yeast, garlic, onion, paprika	1 piece	220	14	x			x	x	x	x			
Cereal Fruity Cheerios	Oats, pear, citric acid, trisodium phosphate	1 bowl	120	26	?						x			
Breakfast Bagel Sandwich (egg and cheese)	MFS, citric acid, phosphates, yeast	1 each	225	32	x			x		x	x			
Calzones Mini Cheese	Barley, tomato, cellulose, olive oil, cottonseed oil, garlic, yeast, corn starch	3 pieces	350	34	x			x		x	x			
Juice Apple Cherry	apple, cherry	4 fluid oz	60	15										
Mixed Vegetables	Corn, Peas, Green Beans, Carrots, lima beans	1/2 cup	55	12							x			
Nacho Cheese Dip	MFS, phosphates, paprika, Maltodextrin	1/2 cup	279	5				x			x			
Popcorn Shrimp	Soy protein, shrimp, Modified Corn Starch, citric acid, garlic, phosphates, cellulose, whey, yeast, corn flour	3 ounces	230	22	x			x	x	x	x			
Salad, Kale ***	Kale, Spinach, Carrots, Onion, Raisins, Tomato, Apple Cider Vinegar, Soybean Oil, MFS, garlic, Sunflower Seeds	1/2 cup	92	12		x	x			x				

Wichita Public Schools updates their allergen information each school year and posts on their Web page.



## Managing Food Allergies in Schools

Your school nutrition program works hard to provide meals that are safe and wholesome for all students. Part of the culture of food safety you foster involves managing food allergies in your school(s). Current statistics from the Centers for Disease Control and Prevention (CDC) underscore the importance of a comprehensive plan for food allergies schoolwide:

- About 4–6 percent of youth in the United States have food allergies.
- Prevalence rates increased 18 percent in a 10-year period (1997-2007).
- Up to 18 percent of children with allergies have had a reaction due to accidental intake at school.
- One-fourth of severe allergic reactions at schools involve children with no known diagnosis of food allergy.

From the school board to playground monitors, all administrators and staff play important roles in protecting the health and safety of children with chronic conditions, including food allergies and intolerances. You can be a valuable leader in developing a culture of food safety for food allergies. *The Tool Kit for Managing Food Allergies in Schools* (<https://www.cdc.gov/healthyschools/foodallergies/toolkit.htm>) is an excellent resource developed by the Centers for Disease Control and Prevention in partnership with other Federal agencies including USDA, leading education organizations, and allergy experts and advocates. The development team included parents and school professionals from various specialties, including school nutrition.

The easy-to-use tool kit includes tip sheets, training presentations, and podcasts highlighting resources and action steps specific for a diverse audience of school staff:

- School administrators
- Superintendents
- School nutrition professionals
- Teachers and paraeducators
- School mental health professionals
- School transportation staff
- School nurses.

Food allergies and intolerances may present a first step to engaging the entire school community in the development of a culture of food safety. The toolkit provides tools to achieve a schoolwide plan for managing and, more importantly, preventing food allergy and intolerance reactions.

The Institute of Child Nutrition ([www.theicn.org](http://www.theicn.org)) has a variety of food allergy resources, such as face-to-face trainings, fact sheets, and mini posters. You can find information on the nine common food allergens, strategies for creating food allergy plans, and information for educating the school community, just to name a few. Use these resources to train your staff, from production to cashiering, on managing food allergies.

## Menu Chat

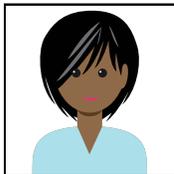


Hello.



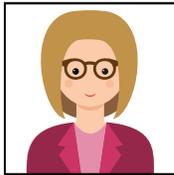
Megan

This school year, we have a few new students who need meal modifications. I am looking for a place to start. Do you have any suggestions?



Sandra

Each student in our school with a special nutrition need due to a disability has a team meeting to plan for the school year. I suggest you find out about any similar meetings in your schools and plan to attend. Members of the team include parents, teacher(s), school nurse, administrator, and school nutrition staff. We share information and understand everyone's role in providing for the student's needs. It helps our department meet needs and educates others about our program. Good luck!



Megan

**THANKS!**

I will check with our school nurse.

## Vegetables

Soybeans are the only vegetable among the nine most common allergens. Popular in vegetable blends, they are also known as edamame.

Some diets may require texture modification of vegetables. You can puree many vegetable salads, such as marinated carrot coins or three-bean salad. Be cautious using marinade liquid when puréeing to avoid overpowering sourness. For added moisture, use water, fruit or vegetable juice, or milk to match flavor profiles for puréed items.

## Grains

Grains are often associated with allergies and intolerances. A wheat allergy is different from gluten intolerance. Wheat can be found in many foods, including some you might not suspect, so be sure to check the ingredient lists of all of your processed foods.

Gluten is a specific protein found in several different grains, including wheat, barley, rye, and triticale. Triticale is a cross between wheat and rye. Oats do not contain naturally occurring gluten, but may be a source due to cross-contact and cross-pollination. Some people are intolerant to gluten. For example, Celiac disease is a disability that requires removal of all foods with gluten from the diet; it is not an allergy.

Several grains do not contain gluten. Prepare these grains without adding a food with gluten to the recipe. That way, the menu item is appropriate for all of your students, including those with “gluten-free” requirements. Naturally gluten-free whole grains include:

- Brown rice and wild rice
- Quinoa
- Oats (if certified to be gluten-free)
- Millet
- Amaranth
- Whole-meal corn
- Buckwheat (even though wheat is part of the name, it is not wheat and does not have gluten).

## Meats/Meat Alternates: (M/MA)

Remember that a food allergy is an abnormal immune response to a food protein. M/MA are rich in protein. It is easy to see why modifications in M/MA choices are common in diet-related disabilities. Seven of the nine most common allergens – milk products, eggs, peanuts, soy, tree nuts, fish, and shellfish – are part of the M/MA group. An allergy to one M/MA requires substitution of another food within the component group.

Cheese and yogurt are milk products, so both contain milk proteins. Students with an allergy to a protein in milk will need to avoid yogurt and cheese.

Most people with lactose intolerance can eat cheese and yogurt. Some may be sensitive to the amount of lactose in yogurt and need to avoid it. Some brands of yogurt include fish gelatin as a thickening agent. Students allergic to fish need to avoid these brands; check labels for ingredients.

Fresh meat and poultry contain only the proteins found in those foods. Processed meat and poultry products often have additional ingredients, including wheat and soy compounds.

Careful label reading will identify potential allergens in M/MA choices. Check ingredient labels often for possible formulation changes.

## Other Menu Items

In addition to looking at specific components, you will need to review recipes and non-creditable menu items to look for common allergens. For example, look for milk, peanuts, tree nuts, soy, or wheat ingredients in fruit-containing recipes and products. You may need to prepare fruit-based items (examples: fruit crisp or yogurt-dressed fruit salad) without these added ingredients. A baked apple could substitute for apple crisp to avoid wheat.

Conversely, vegetable recipes and condiment products may contain other allergens, such as milk, soy, or wheat ingredients. You may need to prepare small amounts of a recipe without the allergen ingredient, such as broccoli with cheese sauce thickened by corn starch rather than wheat flour. Check salad dressing labels for ingredients.

With an allergy or intolerance, avoiding the food is a must. Because wheat fractions, such as wheat starch and wheat dextrin, are common in the food supply, carefully checking ingredient labels helps identify possible sources of wheat and/or gluten. Food and Drug Administration (FDA) guidelines define the term “gluten-free” on food labels. Milk and soy fractions are also common in prepared foods; read labels carefully to identify foods with these ingredients.

Each of the meal components may need special attention to assure meals meet the dietary restrictions for students with these needs. Tools for modification include:

- Food labels and ingredient statements – Read carefully and identify products with potential allergens or intolerance compounds.
- Substitution of a nutritionally equivalent product or meal component allowed in the diet.
- Menu options that allow a choice at the serving line, such as
  - Hamburger with option to add cheese
  - Plain fruit in place of fruit-based dessert with grains.

### MEAL PATTERN MODIFICATIONS

For each student with a disability that requires dietary restrictions, you must have a medical statement on file if the modified meal does not meet the reimbursable meal pattern. This documentation is what allows you to serve a meal that may deviate from the reimbursable meal pattern when necessary and receive reimbursement. For students with nondisability meal accommodations (food preferences), you must provide a meal that meets the meal pattern requirements when planning substitutions; otherwise, you cannot receive reimbursement for the meal. Keep in mind that receiving balanced, nutritious meals to the greatest extent possible is in the student’s best interest. Similar to free or reduced price meal status, health information must be kept confidential.

Planning diets for students with dietary restrictions can be challenging. You can ask for help planning meals for students with disabilities. If you need clarification, work with the family to obtain guidance from their State-recognized medical authority. For help identifying specific menu items that you can serve, use school or State agency nutrition professionals, when available. Or, contact qualified nutrition professionals, such as Registered Dietitians/Nutritionists (RD/RDNs). RD/RDNs work in clinical or community settings in your local area, including hospitals, health departments, clinics, universities, and many school nutrition programs.

### PLANNING MENUS

Well-planned menus can meet the needs of most of your students. Offering a variety of foods may lessen the need to prepare separate menus for your students with disabilities. It makes sense to focus on the common needs of all students. When the general menu provides choices, students share a common experience.

Students with disabilities may feel anxious because they have dietary restrictions that prevent them from consuming a Program meal as prepared. Unfortunately, students with diet restrictions may experience bullying just because they have different needs. Being able to eat many of the same foods as other students reduces the stigma some students may experience. A student with a disability must be offered a full reimbursable meal including all required components. In the past with Offer Versus Serve (OVS), if a school offered a hamburger on a bun and the student had a gluten disability, they were told to not take the bun. This scenario is not an acceptable method to accommodate a gluten disability. The meal patterns encourage schools to offer a variety of foods and permit schools to:

- Provide choices within meal components that allow students who do have a disability to choose reimbursable meals.
- Offer a variety of milk types that accommodate the needs of students with lactose intolerance, such as lactose-reduced/free milk.

## Planning Meals for Students With Common Allergies and Intolerances

Planning meals that consider food allergies or intolerances is common in school nutrition programs. Dietary modifications for both food allergies and intolerances involve providing meals or snacks with alternate choices for restricted foods. You serve a variety of different foods in your program. It is possible to plan a menu to meet the needs of many students without having to purchase or prepare special items.

## Checking Food Labels for Allergens

Always use the actual product label from the package to review for allergens and other ingredients. A sample label on a company's website may not reflect the actual ingredients. A master file or binder of current food labels is useful for staff responsible for disabilities that restrict the diet. If you have questions about food allergens or labeling information for a particular product, contact the manufacturer.

Product ingredients do change from time to time, so it is important to review labels on a continuing basis. Companies may change formulations without notice. Reviewing labels only during the summer or the beginning of the school year will not catch changes made during the school year.

Multiple vendors may supply USDA Foods products, for example, a chicken fajita. Always check the labels of these types of products. Each manufacturer will have a unique product formulation. Company M's chicken fajita may be soy-free while Product P's may contain soy protein. For questions about allergens in USDA Foods products or items processed with USDA Foods ingredients, contact each product manufacturer.

Create safeguards by checking labels of products at delivery. Suppliers sometimes ship different lots of the same product with varying ingredients. Bulk packages may only have the labeling information on the outer package. Staff often discards the outer package, which may create challenges for identifying food allergens. Establish SOPs to ensure that the smaller units have ingredients noted.

Your staff must review product labels prior to preparing food for a student with food allergies or intolerances. This last check before meal service safeguards the student. Check the labels for both familiar and new products for all the reasons listed above. Every staff member's effort is worth the student's health and enjoyment of school meals.

## FOOD SAFETY AND DISABILITIES THAT RESTRICT THE DIET

Students who receive modifications for disabilities that restrict the diet may be at higher risk for complications of foodborne illness. You may wonder why. In comparison to other students the same age, these students may have weaker immune systems due to their disabilities. Young children have less developed immune systems than older students. So, young children with disabilities can be at risk from two perspectives. Taking special care to keep food safe is important to safeguard the health of all students, especially students with food-related disabilities. Three areas of food safety and diet-related disabilities requiring special attention are:

- Preventing cross-contact
- Cleaning and sanitizing equipment
- Avoiding bare-hand contact with ready-to-eat foods.

## Preventing Cross-Contact

SOPs for diet-related disabilities involving food allergies and intolerances emphasize steps to prevent cross-contact. Cross-contact occurs when potential allergens from one food come in contact with other foods that do not normally contain the allergen. For example, staff prepares a fresh tossed salad. The salad has croutons added before portioning a serving for a student with a wheat allergy or celiac disease. Even after removing the croutons, the student cannot eat the salad. Trace amounts of gluten or other wheat proteins remaining on the salad are potentially enough to cause an allergic reaction. To prevent cross-contact with potential allergens, some schools dedicate specific areas and equipment to prepare meals for students with food allergies and intolerances. You may assign allergen-free meal preparation only to specially trained staff members.

## Menu Chat

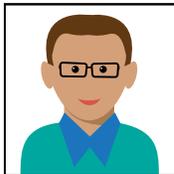


Hi there!



Lin

We have students who are requesting gluten-free foods or want certain food items because of personal choice. What should I tell my staff?



Dylan

We cannot always prepare a special meal for a student who prefers vegetarian foods or has decided to eat gluten-free. We can meet personal preferences with menu planning that offers choices to all students. At our high school, we offer made-to-order entree salads. We are able to offer vegetarian, gluten-free, and dairy-free to all students within the regular meal pattern requirements and OVS. We prepare these meals on separate surfaces to avoid cross-contamination.

As a general practice, we commit to offering reasonable options that still accommodate everyone. For example, while we may not be able to provide a specialty gluten-free, dairy-free pizza, we can offer a gluten-free, dairy-free menu choice when pizza is on the menu. This approach meets the needs of our students, and helps us stay within our budget.



Lin

**THANKS!**

What a great idea for entree salads. I will try this approach. Thanks!

Unintended cross-contact can also occur before your school even receives products. Labels indicate the types of products packaged at a food plant, which may be a source of cross-contact. For example, food labels may state a food is packaged in a plant that also processes peanuts. This means the food may have come in contact with peanuts even if peanuts are not an ingredient. Food recalls often involve foods possibly exposed to an allergen that is not an ingredient. See chapter 5 for the importance of traceability during a food recall.

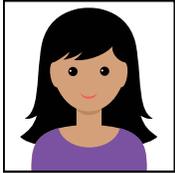
### Cleaning and Sanitizing Equipment

Some diet-related disabilities may require grinding or puréeing food to change the texture. Others may include preparation of a specialized formula. Thoroughly clean and sanitize grinders and blenders after each use. Otherwise, the food particles left on equipment may promote bacterial growth. The equipment may spread bacteria to the next food prepared. Remaining food particles could also be a source of cross-contact.

## Menu Chat

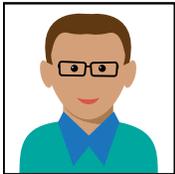


Hi,



Elena

I am looking for help. Do you have any suggestions for food safety and meals that require modifications due to a disability?



Dylan

One of our students requires a specialized formula. We have a standard operating procedure for preparation. The formula includes a measuring scoop that is stored in the container so that it is portioned correctly. Our procedure includes washed, gloved hands so that we don't spread germs to the scoop that will touch formula in the can. The blender is cleaned and sanitized after each use.



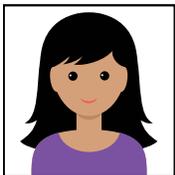
Lin

We use special color-coded cutting boards, utensils, and containers and a separate food preparation area for meals served to students with allergies and intolerances. One staff member is trained and dedicated to this food preparation area; a second backup staff member is cross-trained for coverage when our lead is not at work.



Sandra

As a best practice, we have "emergency plans" for our routine diet restrictions, such as allergies. These plans provide steps to follow when our planned menu is not an option. We never expected to use our emergency meals plans, but when our school became a shelter after a tornado we were prepared. Our community knows our staff is trained and does their very best in all situations.



Elena

**THANK YOU**

I really like the idea of standard operating procedures and plans for the unexpected; I know that will help my staff feel more confident. They really care about the students and want to do the right thing.

### Avoiding Bare-Hand Contact With Ready-To-Eat Foods

Handling ready-to-eat foods *should always* be with clean, gloved hands or utensils. Meals for students with diet-related disabilities are often small amounts to prepare. Making small batches may feel like preparing food at home, where your workers do not wear gloves. Remind staff of proper glove use, the need to wash hands prior to wearing gloves, and to change gloves between tasks. Bare-hand contact can transmit viruses. Be especially vigilant when preparing foods for students with special nutrition needs. They may be at higher risk for complications from foodborne illness such as norovirus. Ready-to-eat foods are not heated, thus can transmit viruses if not properly handled.

The food safety resources highlighted throughout this Menu Planner provide guidance useful for food safety and disabilities that restrict the diet. Consult these resources, develop SOPs, and train your staff. Let's consider one additional area of food safety that is a best practice for meals that require modifications due to a disability: emergency meal plans. Consider having a sample menu for each student with a disability, such as gluten-free. That way you are better positioned to prepare foods from inventory on hand in the event of an emergency. For example, what if a pan of gluten-free food is dropped and thus not servable? Having a handy emergency meal plan helps to quickly prepare a meal for students with this diet modification. Chances are the plan will help your staff be calm during a stressful time and confident they are meeting a student's needs.

### CONCLUSION

Using the information in this chapter, you and your staff can modify menus with confidence and provide for the special nutrition requirements some students need to grow and thrive. In cases of disabilities that restrict the diet, schools are required to provide for the disability needs of their students. The starting point is information specific to each student from a licensed physician or other State-recognized medical authority.

Key points from this chapter include the following:

- Federal law *requires* that schools provide reasonable meal modifications for a disability that restricts the diet.
- Develop necessary procedural safeguards with appropriate notifications in languages and formats that families can understand.
- Obtain a medical statement, signed by a State-licensed health care professional who is authorized to write medical prescriptions under State law.
- These meals may vary from program requirements and are still reimbursable.
- Meal modifications for disabilities that follow meal pattern requirements do not require documentation. However, States have the flexibility to require a medical statement.
- Program regulations *permit* schools to provide meal accommodations in nondisability situations.
  - No documentation is required for nondisability situations, with the exception of nondairy, fluid milk substitutes that meet the FNS nutrition standards, which do require a written request from the parent or guardian.
  - These meals must meet the meal pattern requirements in order to receive reimbursement.
- Food allergies and food intolerances are different but both should be treated as a disability if they impact a major bodily function, such as the digestive system.
  - A food allergy is an abnormal response to a protein triggered by the immune system.

- A food intolerance occurs when the body's digestive tract reacts abnormally to a food or food ingredient.
- Nine common food allergens account for 90 percent of all allergies: milk, eggs, peanuts, soy, wheat, tree nuts (example: almonds, walnuts, pecans), fish, shellfish, and sesame.
- While flexibility is the key to building school menus, additional changes in the meal and meal service may be needed to provide meal modifications for persons with disabilities. Menu flexibilities are not intended to address a disability modification during menu planning.
- Students who receive modifications for diet-related disabilities may be at higher risk for complications of foodborne illness, so special care needs to be taken during food preparation.

Employ the strategies covered in this chapter for your students with food-related disabilities. Knowing what steps to take can make a major contribution to your students' quality of life and your staff's confidence. The extra effort you make to help these students feel included in the school meal experience contributes to their total school experience.

Wholesome and delicious meals, carefully planned and prepared, meet the needs of all students. How well do your students and school community know about the efforts and expertise you and your staff offer? They will, when you market your program! That is the focus of chapter 7.

**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**

1. School nutrition programs are \_\_\_\_\_ to make meal modifications for students with diet-related disabilities. School nutrition programs are \_\_\_\_\_ to make meal accommodations for students with nondisability meal requests.
2. What is the documentation required for a diet-related disability request? When does the school nutrition program receive the documentation?
3. What is the difference between a food allergy and a food intolerance?
4. What are the nine most common food allergens?
5. What are three food safety practices especially important when preparing meals for students with special nutrition needs?

**If you got the answers right, great job! You are ready for the next chapter. If you missed any, review that section of the chapter before moving on to the next chapter.**



## LINKS TO ADDITIONAL RESOURCES

Institute of Child Nutrition, Food Allergy Fact Sheets (<https://theicn.org/icn-resources-a-z/food-allergy-fact-sheets>).

Institute of Child Nutrition, Food Safety Basics (<https://theicn.org/icn-resources-a-z/food-safety-basics>).

National Education Association Health Information Network and U.S. Department of Agriculture, Food and Nutrition Service, The Food Allergy Book: What School Employees Need to Know, Alexandria, VA (<https://www.fns.usda.gov/ofs/food-allergy-book-what-school-employees-need-know>).

U.S. Department of Agriculture, Food and Nutrition Service, Policy Memos (<https://www.fns.usda.gov/cn/nutrition-standards-school-meals>):

Modifications to Accommodate Disabilities in the School Meal Program, SP 59-2016

Accommodating Disabilities in the School Meal Programs Guidance and, Questions and Answers, SP 26-2017

Accommodating Children with Disabilities in the School Meal Programs (<https://www.fns.usda.gov/sites/default/files/cn/SP40-2017a1.pdf>).

U.S. Department of Health and Human Services, Centers for Disease Control, Tool Kit for Managing Food Allergies in Schools (<https://www.cdc.gov/healthyyouth/foodallergies/toolkit.htm>).

U.S. Department of Health and Human Services, Food and Drug Administration, Gluten-Free Labeling of Foods (<https://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/allergens/ucm362510.htm>).

## APPENDIX ITEMS

**Appendix 6.A** Sample Food Allergy Management and Prevention Plan Checklist



**CH.7**

# Marketing School Meals for Success!



# Marketing School Meals for Success!

## CH.7

*You have worked hard to plan and serve quality meals and you know they are the best in town—for nutritional value as well as taste. How can you be sure your customers know that, too? Bottom line: You need to market your school nutrition program.*

**This chapter will focus on using effective marketing techniques to increase participation in your program. You will learn about:**

- The role of marketing in school nutrition programs
- How to develop, implement, and evaluate your marketing plan
- Why it is important to involve the school community, starting with your staff
- Ways to reach out to your stakeholders—teachers, parents, school administrators, and the community
- Initiatives and promotions such as Team Nutrition, Farm to School, and the Alliance for a Healthier Generation’s Healthy Schools Program
- How to use promotions and merchandising to get students’ attention.

Your marketing plan is an investment in the future success of your school nutrition operation. You can use marketing principles to benefit your students. By putting the needs of the student first, the school nutrition program provides nutritious meals that enhance academic performance and encourage the development of lifelong healthy eating habits.

### INTRODUCTION

You face stiff competition in your school nutrition program, ranging from the traditional bag lunch from home to restaurant chains. Your students have choices, whether there is an open or closed campus, or whether they qualify for free, reduced-price, or paid meals. Through marketing, you *can* influence students’ choices to eat the meals you prepare.

Marketing also helps you create a positive image of your program with the adults that can sway students’ choices. These include administrators, teachers, parents, the local media, and even your own staff. Start with quality meals and quality service, combine these with good marketing and effective promotions, and you have a recipe for success!

### The Role of Marketing in School Nutrition Programs

You may be familiar with the traditional four Ps of marketing: Product, Price, Promotion, and Placement. However, this model doesn’t emphasize the customer, and that is why a fifth P has been added to the mix: People! Today, marketing has shifted to focus on the customer, or rather, the relationship with the customer.

Let's take a minute to review the five Ps as they relate to school nutrition:

1. **Product** – Product refers to a product *or* service. In school nutrition, it is not just the food, but how it is served.
2. **Price** – This not only includes the actual price, but the perceived value in comparison to price.
3. **Promotion** – Promotion communicates the benefit and availability of products and services. School nutrition promotion examples include events, taste-testing, newsletters, posting menus online, contests, social media, posters, etc.
4. **Placement** – Placement is about making sure your product or service is in the right place at the right time. Examples in school meals include fast, convenient service for short lunch periods, breakfast grab-and-go kiosks, and strategic placement of food items on the service line to influence student choices.
5. **People** – People is all about relationships. Building and maintaining positive relationships in school nutrition is dependent on outstanding customer service.

In your school marketing mix, the customer drives the entire marketing plan. Let's take a step back and think about what "customer" means in the school nutrition setting. Your school nutrition program has many internal and external customers. Another way to think of customers is as stakeholders: people or organizations with an interest in your program. These include students, teachers, administrators, parents, and others in the community who are interested in the well-being of children. The student is the primary customer, while the other stakeholders are considered secondary customers. The main focus of school nutrition is to meet the dietary needs of each student customer during the school day.

What does a student customer expect? Today's children eat out more often than those in previous generations. Changes to the National School Lunch Act have helped schools gain control over the outside influences of marketing and advertising to children and adolescents in the school setting. However, students have access to more forms of media than ever before outside of school.

These external influences are a form of competition in that they set expectations. Students expect the food, atmosphere, staff, and service line to be similar to what they experience when eating out in a commercial restaurant. They have grown to expect quick service, receive value for their money, and be greeted by a pleasant server. They want to see food that is attractive, convenient, and fresh. In other words, students expect the same dining experience *you* expect to receive. For customers to be satisfied, school nutrition programs must provide outstanding customer service.

While competition and external influences are not the only reasons to market your school nutrition program, you need to consider the impact of the external environment. Marketing can also set or reset stakeholders' perceptions of school meals. Marketing can positively influence your staff's attitudes about their work. When the outcome of marketing is increased participation, students *and* your bottom line reap the benefits.

### Required Marketing

At minimum, every school food authority (SFA) must make a public announcement near the beginning of each school year that the National School Lunch Program (NSLP), School Breakfast Program (SBP), and/or Special Milk Program (SMP) are available in the school or school district. This notice must include the eligibility criteria for free and reduced-price meals and/or free milk. It must be provided to the local news media, the unemployment office, and any major employers who are contemplating large layoffs in the attendance area of the school. Some State agencies may prepare this public release on behalf of SFAs. While you are required to make this announcement, it's just one of many elements to include in a marketing plan.

### Where To Start

Maybe you have a marketing plan, or you have done promotions in the past. Or maybe you are looking at marketing for the first time. No matter what your experience, now is the perfect time to look at marketing with a fresh set of eyes. So where should you begin?

Make sure you have a solid understanding of marketing as it relates to school nutrition. Marketing is a discipline in and of itself. For someone without specific training or skills in marketing, it can seem like a really big challenge. However, you do not have to be an expert to build and implement a solid marketing plan for your school nutrition program.

Fortunately, many educational resources and tools are available to help you do this. These include the Institute of Child Nutrition (ICN) resources as well as many USDA tools. These resources will be examined in greater depth later in this chapter.

Explore options for marketing assistance within your school district and community. Your district may already have a marketing, business, or

communications expert who may be able to give guidance or help facilitate the process. Experts in the community may be willing to volunteer their time, or marketing students at a local university may be available. You could also consider hiring a marketing consultant.

Marketing may cost money, but it is an important activity to achieve your goals. Plan ahead and include marketing in your budget. As marketing increases your participation, you will see the return on investment in your bottom line.

Even more important, marketing is an investment in children's health. By increasing customer participation, you are increasing the number of times a student eats a nourishing meal.

Creating, implementing, and evaluating your school nutrition program's marketing plan takes time, so be sure to plan ahead. The rest of the chapter will guide you through the process. Your marketing efforts help ensure increased and sustained school meal participation.



## Facility Upgrades Increase Customer Satisfaction and Participation

All successful businesses know that a major key to gaining and retaining customers is to provide an inviting, comfortable, and aesthetically pleasing environment. Federal Way Public Schools Nutrition Services department made a few key changes in one of its school kitchens that demonstrate this principle in action. The Sacajawea Middle School lunchroom badly needed an upgrade. The kitchen looked dingy, old, and uninviting. Challenges such as exposed piping, old cabinetry, a yellowed ceiling, and combination concrete/tile flooring had rendered previous remodeling attempts unsuccessful. Although multiple tactics and treatments had been tried, the area retained the same unsightly appearance. The school is located in a low-income neighborhood with 64 percent free/reduced eligibility, and the district and school understood the importance of making improvements to increase student meal participation. The district:

- Hired a graphic artist to create branded signage for the main serving line and snack bar areas
- Removed the exposed piping and old cabinetry
- Installed a stainless steel splash guard
- Painted the ceiling with a basic, white paint
- Installed new epoxy flooring.

The Nutrition Services budget covered the costs of the renovation, using employees for labor, with the exception of the floor and graphic design. The new epoxy floor cost \$11,650. The graphic design was \$3,900, including design ownership rights. Now the graphics are available for use in the district's 36 school kitchens, as well as to the USDA, allowing them to share the design with other school districts. It is evident the marketing efforts paid off. A study of participation in Sacajawea's lunch program over a nearly 60-day period before and after the upgrades demonstrated 2.7-percent increase in participation.



**School District:**  
Federal Way  
Public Schools

**Located:**  
Federal Way,  
Washington

**Enrollment:**  
21,800

**Website:**  
[www.fwps.org](http://www.fwps.org)



Sacajawea Middle School branded signage for the main serving line

## CREATE YOUR MARKETING PLAN

In the previous section, you learned about the importance of customer relationships in marketing. It will come as no surprise that creating a successful roadmap or plan for marketing is best accomplished as a group effort, rather than a solo act. Use the following four steps to develop a solid marketing plan. They focus on involving people in your school community who can make a difference in whether students choose to participate in your nutrition program. The steps are:

1. Engage stakeholders.
2. Conduct market research.
3. Draft your plan.
4. Communicate the plan and timeline to stakeholders.

Let's look at each step in more detail. Best practices are built into each step to help ensure success.

### Engage Stakeholders

Building relationships with your customers is critical to successful marketing. Consider all of the stakeholders who may influence school meal participation, and engage them in your marketing planning. Here are suggestions:

- Obtain administrative support early in the process.
- Involve your staff throughout the process.
- Gather a small group of key stakeholders – students, parents, teachers, administrators, school nutrition program staff, and community representatives – for input at checkpoints in research and planning. Consider establishing a Student Nutrition Action Committee (SNAC).
- Involve your school wellness committee. Find ideas at (<https://www.fns.usda.gov/tn>).
- Connect with high school business teachers to involve students in the marketing plan as part of a class project.
- Engage classroom health and physical education teachers to reinforce curriculum and cafeteria experiences.

- Create incentives and other methods for buy-in from stakeholders. For example, you could hold a districtwide competition for brand development, promotional themes, or artwork.

### Conduct Market Research About Your School Nutrition Program

Marketing research focuses on understanding your current program's strengths and weaknesses, customers, and competition. Your research doesn't have to be complicated or expensive.

First, identify strengths and weaknesses in your school nutrition program from a marketing perspective. Take advantage of free self-assessment tools to determine areas needing improvement such as:

- ICN Best Practices for Marketing the School Nutrition Program (<https://theicn.org/>); includes a web-based, self-assessment checklist covering six marketing practice categories.





## Best Practices for Marketing the School Nutrition Program

You can apply marketing principles to benefit the health and well-being of your students. To help you build or improve your marketing plan, the Institute of Child Nutrition (ICN) has created a research-based, self-assessment tool. The *Best Practices for Marketing the School Nutrition Program* (<https://theicn.org/>) resource was developed with the assistance of School Nutrition (SN) professionals from across the country. This tool is based on ICN research indicating that SN marketing initiatives can be successful if key practices are implemented.

### Self-Assessment Tool

Based on feedback from SN professionals, the resource was designed as a Web-based, self-assessment checklist. The tool includes six practice categories of marketing initiatives:

- Development
- Implementation
- School Nutrition Staff Involvement
- Communication
- Stakeholder Support
- Advantages for Students.

Under the 6 practice areas are 16 goals and 73 best practice statements.

When using the self-assessment, review each statement. Then rate the status using a four-point scale by checking the current status block. The four response options include “Elements in Place,” “Majority of Elements in Place,” “Few Elements in Place,” and “No Elements in Place.” Complete “Notes for Action Plan” to address any best practice identified as one that requires further attention.

Once you complete the assessment, you can create an

SECTION 1 DEVELOPMENT					
In this section, you will consider the goals and best practices that focus on developing the marketing initiative.					
Goal 1: Marketing strategies are identified to update the school nutrition program.					
BEST PRACTICE STATEMENT	CURRENT STATUS				NOTES FOR ACTION PLAN
	Elements in Place	Majority of Elements in Place	Few Elements in Place	No Elements in Place	
Encourage the planning for comfortable dining furniture that is age appropriate and promote social interactions among customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Offer a variety of food choices to accommodate the ethnical and religious/cultural diversity of students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Portion of the Development section from the Self-Assessment Tool from *Best Practices for Marketing the School Nutrition Program*, p. 11

action plan to address those practices needing attention. Schedule an annual review for your action plans and implementation process. You can use this tool to develop and maintain a successful marketing initiative for school nutrition programs.

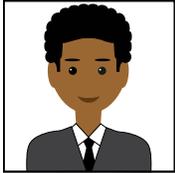
The practices featured in this resource are measurable practices that define achievable and effective strategies for school nutrition professionals. You can use this best practice resource to identify:

- essential practices to implement in your school nutrition program;
- the role of school nutrition staff and other stakeholders;
- resources needed for planning, developing, and implementing policies and procedures related to marketing practices; and
- training needs of school nutrition staff specific to marketing activities.

## Menu Chat



## Hello friends!



Tyler

I want to start doing more marketing and nutrition promotion; how do you get others to help? I know I need help to accomplish our goals.



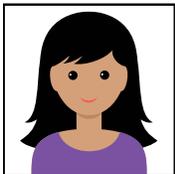
Megan

I have learned to ask for help. When I tell the parent group or wellness committee about a project I want to complete, I usually have a few people willing to help. Wellness committees have to monitor and report progress each year; our projects help meet that goal.



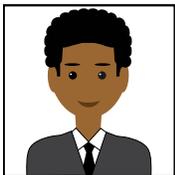
Lin

I let the advisors and student groups that are interested in community service projects know about the many different opportunities to volunteer in our program. One year a journalism student helped write monthly media releases. I kept copies and now have a template to update each year.



Elena

I spoke with a local business leaders group about strategies. They decided to partner with us on a small project to help showcase our Farm to School produce. This has worked out very well.



Tyler

**THANK YOU**

You have so many great ideas! Thank you for sharing with me. I am energized!

Obtain valuable insight about your current program, customers, and competition by surveying stakeholders. Your district communications office may be able to assist. Low-cost informal options for obtaining stakeholder feedback include:

- Online survey tools
- Social media
- Staff discussions and surveys
- Lunchroom and classroom surveys.

Review your school district’s strategic plan. Consider how your school nutrition program fits within the school district’s mission, goals, and long-range plans.

Look for State and national initiatives that you might be able to implement at the local level (for ideas, see Effective Strategies, Initiatives, and Promotions section later in this chapter). If your State has already developed resources and outreach, you may need fewer local resources to extend an initiative in your district. Check with your State Nutrition Action Plan and Cooperative Extension contacts. You may also want to tie in community, professional, and commodity organization campaigns.

By now you have a clear picture of your program’s strengths and weaknesses, customers, competition, and existing resources. You have stakeholder buy-in to develop a marketing plan. So, now let’s take a look at how to draft a plan.



**School District:**  
Blue Valley Unified  
School District 384

**Located:**  
Randolph, Kansas

**Enrollment:**  
200

**Website:**  
[www.usd384.org](http://www.usd384.org)

### District Website Features Menus with Photos

In Blue Valley School District, Food Service Manager Stormy Brandt combined her nutrition expertise with technology to teach K–12 students about nutrition and the revised school meals. To illustrate the school meals each day, she started creating a sample meal on a tray to display in the hall by the cafeteria. There, students could look at the display and decide whether they wanted that day’s reimbursable lunch. A student with a camera as well as the district’s communications and information technology staff took notice. Now the district’s website features photos of all standard lunch offerings along with menus! When parents and students check the food service calendar, they can see the listings and what the lunch and breakfast trays will look like. The photos are particularly helpful for younger kids who may remember that they like stromboli when they see it, even if they don’t exactly remember the name! The photos also help generate discussion. Brandt said,



“Students are very interested in how we choose what to serve, and it gives us a chance to talk about nutrition in a positive way.” Brandt has retired from the district but the website continues to stay updated.

*Connection to Best Practice Research: Institute of Child Nutrition research shows communication, stakeholder support, and advantages for students are three best practices for marketing school nutrition.*

**Blue Valley School District displays and photographs sample meals to post on the district website along with menus.**

### Draft Your Plan

A marketing plan includes clearly defined goals, target audience, strategies with supporting measurable objectives and action steps, a budget, and evaluation. Fortunately, you and your team do not need to start from scratch to write a marketing plan! Several excellent resources exist.

### ICN Best Practices

You can use the ICN Best Practices checklist as a starting point to create your own plan. That will ensure that you build all six best practice areas into your plan.

### USDA School Breakfast Marketing

Another resource is the USDA's School Breakfast Marketing toolkit (<https://www.fns.usda.gov/sbp/marketing>), which includes ideas for developing a marketing strategy. While the resource is specific to breakfast, many of the ideas also apply to lunch, including defining your objectives and audience as well as creating your image.

### Build in Marketing Strategies

Incorporating promotional strategies can help encourage children to make healthy choices. Strategies include:

- Manage Portion Sizes
- Increase Convenience
- Improve Visibility
- Enhance Taste Expectations
- Utilize Suggestive Selling
- Set Smart Pricing Strategies

These strategies are covered in more detail later.

Later in the chapter, we will showcase effective initiatives and promotions that you can incorporate into your marketing plan. Also, keep in mind that school nutrition marketing efforts cross over into education and communications, all promoting the health and well-being of students. Be sure to think about how these aspects will be integrated:

- Food-Safe Schools
- Local School Wellness Policies
- Farm to School
- Team Nutrition resources for cafeteria and classroom



***Each local educational agency (LEA) needs to establish a comprehensive Local School Wellness Policy. The LEA has legal and administrative control of the school district and is responsible for the policy and its implementation, monitoring, and publicity. SFAs should have an active role on the Wellness Committee(s) and should make their stakeholders aware of the ability to participate in the committee. The wellness policy is a general area of the Administrative Review (Section V: General Areas, Module: General Program Compliance – Local School Wellness Policy).***

Your marketing plan should also include evaluation. All your marketing objectives should be measurable and have a timeframe. A good framework for writing objectives is to use SMART (Specific, Measurable, Achievable, Realistic, and Time-Phased). To learn more about writing SMART objectives, see Appendix 7.A. Utilize baseline and periodic sales and purchase records as well as survey data.

You and your team have created a marketing plan. The last step before implementing the plan is to communicate it to key stakeholders.

### Communicate the Plan and Timeline to Key Stakeholders

Before you implement your new marketing plan, let your customers know about it. You can share the entire plan with your small stakeholder group and summarize it for various school community audiences. Build excitement and buy-in for the changes in your program that will result from your marketing plan.

### IMPLEMENT YOUR MARKETING PLAN

Now it is time to put your researched and communicated marketing plan into action. Here are key aspects to implementing your marketing plan:

- Build marketing costs into your budget.
- Train your staff and make sure they understand your plan and brand image.
- Collect baseline data for evaluation.
- Implement program changes.
  - Small changes can be done overnight or over the weekend; for example, putting fruit in a new, conveniently located display.
  - Other changes may require more time and can be done over break; for example, rearranging the layout of the lunchroom to nudge students toward healthier choices.
  - Campaigns and initiatives may require several months to implement, especially if you are developing new marketing materials, making changes to procurement agreements, or modifying menus and recipes.
- Implement your marketing by communicating with stakeholders on an ongoing basis.

Use messaging and communications vehicles that work for each stakeholder audience. This communications strategy is used throughout the process of planning, implementing, and evaluating your marketing plan. The USDA Marketing School Breakfast online toolkit provides excellent tips for tailoring messages and marketing methods by audience (see *Take a Closer Look: Tailoring Messages and Marketing Methods by Audience*).

### EVALUATE YOUR MARKETING PLAN

According to your plan, you will be evaluating your marketing efforts over a certain time period. You can again use the ICN Best Practices checklist as a guide for evaluating your program. Collect sales and purchase records for the marketing plan timeframe and compare against your baseline information. You can also resurvey your stakeholders and compare differences. Use this information to make improvements to your future plan.

So far this chapter has covered planning, implementing, and evaluating marketing plans for your school nutrition program. Now it is time to take a look at some proven marketing strategies, initiatives, and promotions that you can consider for your own marketing plan.

### EFFECTIVE STRATEGIES, INITIATIVES, AND PROMOTIONS

When it comes to marketing strategies, initiatives, and promotions, you can find plenty of tested concepts. The remainder of the chapter provides successful marketing examples. You do not have to start from scratch; check out these ideas. Sometimes what works for others will work well for your operation.

#### Build on Effective Initiatives: Make School Meals a Movement

Get your students excited about school meals! Consider the creative initiatives below. Also, check with your State office to learn about other efforts occurring in your area.

#### Implement Marketing Strategies

These strategies can help move children toward nutritious food choices. The goal of these strategies is to create sustainable lunchrooms that guide smarter choices.

The principles introduced in the marketing planning section promote healthful eating. Schools are achieving great results with low-cost or no-cost techniques. Let's look at each of these principles in a little more detail. Keep in mind, these changes are designed to guide students to make healthier choices.

**Manage Portion Sizes:** This principle focuses on guiding students to manage portion sizes. Tactics include using pre-portioned packages as well as using smaller bowls, plates, and serving spoons for self-serve foods. Use this strategy for self-serve items that are not required components, such as olives on salad bars.

## Menu Chat

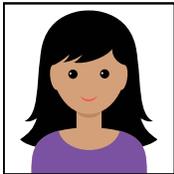


### Hi all!



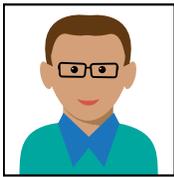
Lin

I want to engage students in my plans to promote our meal programs and the efforts to increase access to healthy food. What has worked well for you?



Elena

I talk with my teachers and find common connections to our promotions and classroom curriculum. For example, nearly every grade level is interested in data collection and analysis as a way to apply math skills. We have many areas of data collection and analysis we need help with, such as measuring decreases in plate waste after an education outreach or surveying students of favorite menu ideas. Engaging the students helps improve our evaluation outcomes.



Dylan

Our high school marketing class has helped us with promoting our meal programs in a way that is of interest to students. The students are creative and they know how to engage other students.



Lin

### THANKS!

You are right—most of the ideas you have shared sound like valuable learning opportunities for students.



## Tailoring Messages and Marketing Methods by Audience

Different audiences may be concerned with different aspects of school meals. Be sure your messages are tailored to engage each stakeholder audience and use the marketing methods most likely to reach them. You may want to check out the Centers for Disease Control and Prevention's *Health and Academic Achievement* ([https://www.cdc.gov/healthyyouth/health\\_and\\_academics/pdf/health-academic-achievement.pdf](https://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf)). The following ideas for marketing school breakfast are adapted from the USDA Marketing School Breakfast toolkit at <https://www.fns.usda.gov/sbp/marketing-strategy>.

### Students

What's Important to Students:

- **Food That Tastes Good.** Find out what types of foods your students like to eat.
- **Having Fun.** Make sure activities that promote school breakfast are age appropriate and varied.
- **Being Healthy.** Your students (especially teenagers) are interested in the benefits of a healthy diet.

Marketing Methods:

- Teacher encouragement
- School posters
- Assemblies
- Peer nutrition educators
- Contests
- Events (e.g., lunch with local celebrity/chef or high school football players (if at elementary school or middle school level)
- Advertisements on school computer screensavers
- Surveys about food preferences
- Articles in school newsletters
- Social media.

### Parents and Guardians

What's Important to Parents and Guardians:

- **Convenience.** Mornings can be hectic. School breakfast takes one thing off of the morning "to do" list.
- **Value.** Breakfast at school is inexpensive. Many families that already participate in the National School Lunch Program are eligible for free or reduced-price breakfast.
- **Nutrition.** Parents can be sure their child is eating a healthy breakfast. School breakfast is guaranteed to meet one-fourth of the recommended daily intake of nutrients.

- **Link to Positive Academic Performance.** Research shows that students who eat a healthy breakfast are more attentive, have better memory recall, and perform better on standardized tests than those who do not eat a healthy breakfast.

Marketing Methods:

- Flyers
- Articles in the school newsletter
- Automated messages on school phone lines (attendance line, “on hold” messages)
- Presentations at Parent Teacher Association meetings
- Parent-teacher conferences
- Special event (e.g., breakfast with parents)
- Public service announcements (PSAs).

### **Teachers**

What’s Important to Teachers:

- **Strong Academics.** Students who eat a healthy breakfast perform better academically than students who do not do so.
- **Healthy Students.** School breakfasts provide approximately one-fourth of the recommended daily intake of nutrients for students.
- **Instruction Time.** School breakfast does not have to interrupt the school day. Breakfast in the classroom can be an opportunity for nutrition education or a short, scheduled “nutrition break.”
- **Student Behavior.** Eating breakfast is linked to better student behavior and fewer absences.

Marketing Methods:

- Principal leadership
- Research on the academic and behavioral benefits of breakfast
- A “trial run” of breakfast in the classroom
- Information about breakfast in the classroom (handout in the toolkit)
- Invite teacher participation on school breakfast decisions.

### **Administrators**

What’s Important to Administrators:

- **School Performance.** School breakfast can help improve academic performance for those students who otherwise would not eat a healthy morning meal.
- **Behavior.** Students behave better in class when they have eaten breakfast.
- **Healthy Students.** School breakfast gives students approximately one-fourth of their daily recommended intake of nutrients.
- **Cost-Effective Strategies.** Administrators need to know that School Breakfast Programs can be cost effective.

**Marketing Methods:**

- PowerPoint presentation (sample included in the toolkit)
- Letters (samples included in the toolkit)
- Other administrators' letters of support
- Invitations to school breakfast events
- Research detailing the academic benefits of a healthy breakfast
- A well-thought-out breakfast expansion plan
- Cost calculations (use calculators included in the toolkit).

**Communities****What's Important to the Community:**

- **Strong Academics.**
- **Healthy Students.** Healthy children help to make a healthy community. Eating a healthy breakfast is an important part of a healthy diet.
- **Help During Difficult Economic Times.** Families whose children are eligible for free or reduced-price lunches are also eligible for free or reduced-price breakfast. The School Breakfast Program can help families that are trying to make ends meet.

**Marketing Methods:**

- Through PSAs
- Inviting local politicians to share a school breakfast meal with students
- Inviting local celebrities to participate in a school breakfast.

**Other Considerations****Specific Ages and Grade Levels:**

Marketing to a 9-year-old and a teenager is very different. Analyze what your school's students are interested in and try to use it to your advantage. Is there a TV character that they like? Which local heroes or local celebrities/chefs or favorite teacher do they admire? Can a favorite teacher or staff person help champion/promote school meals? Do teenagers have growing concern about nutrition and are they aware of all the benefits offered by breakfast?

**Cultural Identity:**

If you are targeting a diverse group of students, you might consider foods from a variety of cultures for breakfast. In the United States, we typically associate waffles, pancakes, cereal, and certain fruits with breakfast. Try researching breakfast recipes from the many cultures that make up your student body. Better yet, ask students to share favorite breakfast menu ideas from their families' recipe books and incorporate them into the breakfast rotation.

**Language**

Many students may come from homes where English is not the primary language. Promoting your programs in a variety of languages will help you to reach the widest audience.

**Make Healthy Foods More Convenient:** Put healthy choices in places that are convenient for students and allow quick access. By making healthy foods more convenient, people are more likely to take them. Here are some ideas:

- Put healthy food by the cash register.
- Precut and bag healthy foods for grab-and-go service.
- Create a healthy convenience line. After creating a healthy convenience line, one school saw a 35 percent increase in consumption of healthy choices and increased overall sales.

- Locate your salad bar in a convenient location. In one school, moving the salad bar resulted in a 200 to 300 percent sales increase in 2 weeks.

**Improve Visibility:** The most visible foods are chosen more often than those less in view. Place healthier items within reach or in high-traffic areas. Add signs or colorful displays to attract attention.

**Enhance Taste Expectations:** How food is presented or displayed can lead to higher taste expectations. Describe your menu items in language that appeals to students.

## Grab-and-Go Breakfast Kiosks Increase Breakfast Participation

In Liberal Unified School District 480, high school breakfast participation was not only low, but extremely low. So Child Nutrition Program leaders knew they would have to approach the situation in a unique way. Of the 70 percent of students who qualified for free or reduced-price meals, only 11 percent were taking advantage of the breakfast program for various reasons. The solution would have to be extremely efficient, not cause tardiness or class disruptions, and would of course have to meet the USDA nutrition standards for school breakfast. Child nutrition staff developed grab-and-go breakfast bags and customized kiosks placed in the most heavily trafficked common areas at the school. These “Second Chance Breakfast” kiosks allow students to quickly purchase or pick up a bag that includes a peanut butter and jelly sandwich, sausage biscuit or muffin, plus squeezable yogurt or string cheese, and milk, juice, or apple slices. At the beginning, participation did



In the Liberal School District, conveniently placed grab-and-go kiosks have resulted in increased breakfast participation.

increase, but a promotional campaign really put the campaign over the edge. The school’s graphic arts and video production students created posters and videos. Within 8 weeks, the Second Chance Breakfast kiosks were selling 300 meals daily, compared to the 28 meals when the program initially launched. The school still offers traditional breakfast, and those participation numbers have not decreased, so the grab-and-go program has increased overall participation in breakfast.



**School District:**  
Liberal Unified  
School District 480

**Located:**  
Liberal, Kansas

**Enrollment:**  
4,700

**Website:**  
[www.usd480.net](http://www.usd480.net)

**Utilize Suggestive Selling:** Cafeteria staff and other adults can affect students' food decisions, especially healthier choices. Use signs and verbal prompts. Make direct eye contact with students while encouraging the consumption of healthful foods.

**Set Smart Pricing Strategies:** People like to get a good deal for their money, which can have both positive effects (such as sticking to a budget) and negative effects (like prompting impulse purchases because treats were on sale, or **bundled**). Use the power of **smart pricing** to give healthy foods the edge!

### USDA's Team Nutrition Initiative

Team Nutrition is an initiative of the USDA Food and Nutrition Service (FNS) that supports the Child Nutrition Programs, including the National School Lunch Program (NSLP) and School Breakfast Program (SBP). To accomplish this work, Team Nutrition utilizes three behavior-focused strategies:

1. Provide training and technical assistance to child nutrition professionals so that they can prepare and serve nutritious meals that appeal to children;
2. Deliver nutrition education to help children gain the knowledge, skills, and motivation to make healthy food and physical activity choices as part of a healthy lifestyle; and
3. Build support for healthy school and child care environments that encourage nutritious food choices and physically active lifestyles.

Team Nutrition provides free resources and materials to schools that participate in USDA Child Nutrition Programs. FNS also provides competitive Team Nutrition Training Grants to State agencies that administer Child Nutrition Programs at the State level. These grants offer agencies funding to support their programming efforts. For more information, please visit <https://www.fns.usda.gov/tn/team-nutrition-training-grants>.

**Farm to School:** Get the School Community Excited About Local Foods

Promoting local foods used in your program can be a valuable part of marketing your school nutrition program. Call attention in your menu to all local foods, in addition to fruits and vegetables.

Activities like school gardens, farm visits, taste tests, culinary instruction, and classroom-based lessons about food and agriculture can increase children's acceptance of new foods. Then when these foods appear on the lunch menu, children are more apt to try and like them.

School gardens are a great way to help students learn where food comes from and encourage them to try new fruits and vegetables. TN curricula include strategies to connect gardens with nutrition messages in the classroom and cafeteria, and at home. These messages are consistent with the *Dietary Guidelines for Americans*. The materials include colorful visuals, games, and activities that are age-appropriate and fun. Collaborate with teachers and volunteers coordinating your school garden to make connections to your cafeteria. See *Take a Closer Look Farm to School: Promoting Your Program* on page 231 for more ways to promote your school nutrition program through local foods. Learn more about procuring local foods in chapter 5.

## Menu Chat

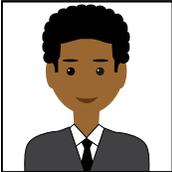


## Hello!



Dylan

I'm looking for suggestions. How do you fit nutrition education into your busy schedule?



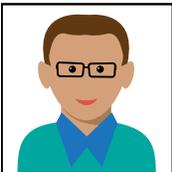
Tyler

We don't have as much time to assist with nutrition education in the classroom as we would like. I contribute to promoting nutrition education by sending a weekly email that highlights a resource, usually from Team Nutrition, to our teachers. I am viewed as a valued source of quality nutrition education materials and teachers like that the materials are designed to meet education standards in math, science, and language arts. Working with teachers, I display the "Dig In" posters in the cafeteria. On our website, we support the program's parent material messages to reinforce foods we offer in the cafeteria.



Megan

I modified a lunch planning activity from Team Nutrition's *Popular Events Idea Booklet*. We offer the learning activity to our 4th grade classrooms every year. The students enjoy the hands-on experience, and it helps us to get student input for the next menu year. Those 4th graders will be our 5th grade school leaders next year. And, it is rewarding and worth the effort.



Dylan

### THANKS

I am going to check out Team Nutrition resources today.



**School District:**  
Seabrook School  
District

**Located:**  
Seabrook, New  
Hampshire

**Enrollment:**  
700

**Website:**  
[www.sau21.org](http://www.sau21.org)

## See-Through Root Garden

With multiple school garden beds, Seabrook School District connects students to nutrient-dense fresh foods and the science of cultivating foods. Students participate in classroom and hands-on education and experiments utilizing the gardens. Harvesting fresh foods and utilizing them in the school cafeteria reinforces concepts of fresh, seasonal foods.

Chef Kimberly Adkins, district school nutrition director, worked with the maintenance team and a local Master Gardener to redesign a raised garden bed to make the walls transparent. They installed transparent acrylic glass on the sides of this garden so that students can see seeds sprout, root, and grow long before the plants breach the soil into the sunlight. This garden bed, named a “root garden,” is basically built like a large see-through ant farm. Along with this “root garden” bed, the team built two raised beds that are easily accessible for students in wheelchairs, so that they may fully participate with classmates.

Two of the raised garden beds are being used to conduct an experiment of heirloom seeds and genetically modified seeds. The students will gather data through classroom exercises and curriculum to establish plant growth, disease and pest resistance, constitution of the health of the plants, and the yield. The Seabrook Farm to School gardens connect students to earth sciences and the community. *Connection to Best Practice Research: USDA supports school gardens as a proven tactic for improving children’s attitudes and consumption of produce, and for incorporating experiential nutrition and agriculture education into the school curriculum.*



**In Seabrook School District, a raised garden bed with transparent acrylic walls allows students to learn about plant growth in the soil.**



## Farm to School: Promoting Your Program

If you are looking for ways to promote local foods as part of your school nutrition program’s marketing efforts, check out the resources compiled by the USDA Farm to School Program (<https://www.fns.usda.gov/sites/default/files/f2s/F2S-Planning-Kit.pdf>). The site provides links to videos, communications tips, graphics, calendars, recipes, menus, and other ideas for promoting your farm-to-school efforts. These great resources come from Cooperative Extension, school districts, and nonprofit organizations.

## Team Nutrition Education Resources



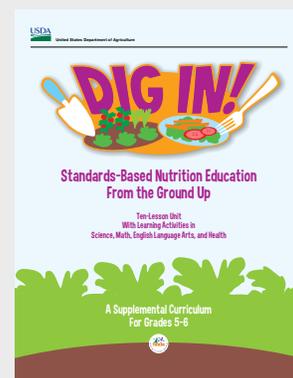
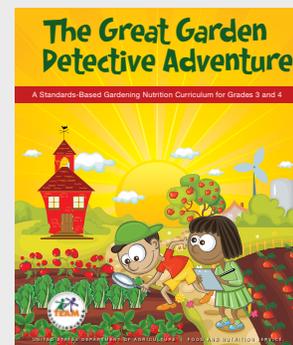
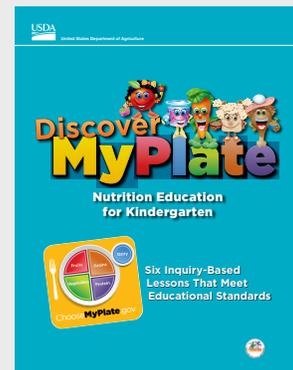
Team Nutrition (<https://www.fns.usda.gov/team-nutrition>) offers a variety of resources for nutrition education and physical activity in schools, from event ideas to classroom materials. Classroom materials available to help teachers promote healthy eating and physical activity range from standards-based curricula to informal activities. The resources are available for schools that participate in Federal Child Nutrition Programs. Here is a snapshot of materials available for order or download.

*Discover MyPlate* (<https://www.fns.usda.gov/tn/discover-myplate-nutrition-education-kindergarten>) fosters healthy food choices and physical activity during a critical developmental and learning period for children: kindergarten. Kindergarten teachers can meet education standards for math, science, English language arts, and health using the six interactive lessons.

*Serving Up MyPlate: A Yummy Curriculum* (<https://www.fns.usda.gov/tn/serving-myplate-yummy-curriculum>) is a collection of classroom materials to help elementary school teachers integrate nutrition education into math, science, English language arts, and health. This “yummy” curriculum introduces the importance of eating from all five food groups using the *MyPlate* icon. Students also learn the importance of physical activity to stay healthy.

*Great Garden Detective Adventure: A Standards-Based Gardening Nutrition Curriculum for Grades 3 and 4* (<https://www.fns.usda.gov/tn/great-garden-detective-adventure>) is an 11-lesson curriculum. Students discover what fruits and vegetables are sweetest, crunchiest, and juiciest. The lessons connect the school garden to the classroom, school cafeteria, and home.

*Dig In! Standards-Based Nutrition Education from the Ground Up* (<https://www.fns.usda.gov/tn/dig-standards-based-nutrition-education-ground>) is a 10-lesson curriculum for 5th and 6th graders. The unit encourages students to eat more fruits and vegetables and understand how these foods are grown.





If you want to hold an event at your school to promote nutrition and physical activity, check out the *Team Nutrition Popular Events Idea Booklet* (<https://www.fns.usda.gov/team-nutrition-popular-events-idea-booklet>). The publication includes 20 themed event ideas for elementary and middle schools, ways to team up for success, handouts, templates, and other event support resources.



*Offer Versus Serve (OVS) Materials* (<https://www.fns.usda.gov/tn/offer-versus-serve-national-school-lunch-program-posters>) are to be used to educate students and your staff about Offer versus Serve. The OVS Posters for Breakfast and Lunch can help students more quickly select the foods in the breakfast and lunch line that make up a reimbursable meal. The tip sheets provide an overview of OVS and may be used to provide training to your staff about the OVS requirements at breakfast and lunch.



*Fueling my Healthy Life* (<https://www.fns.usda.gov/tn/fueling-my-healthy-life>) is a digital nutrition education program for grades 6, 7, and 8. The program includes lesson plans, informational texts, interactive applications, videos, and classroom activities. The materials for each grade have a specific nutritional focus and are designed to raise awareness of the importance of healthy food choices, ultimately leading to positive behavior change.

### **Salad and Theme Bars:** Create Enthusiasm for School Meals

Providing choice increases the likelihood students will select a variety of food items. Salad bars and theme bars can present familiar or new foods in appealing ways. Benefits of utilizing salad bars and theme bars include:

- Increasing lunch participation
- Empowering students to make healthy choices on their own and to try new items
- Decreasing labor costs
- Decreasing food waste
- Helping schools meet USDA school meal patterns.

Research supports salad bars in schools as a means to offer a wider variety of fruits and vegetables. Allow students the opportunity to create their own fresh, crisp salad starting with a bowl of dark leafy greens. Offer a variety of food items, like kidney beans, cherry tomatoes, bell peppers, and whole grain croutons.

Offering other types of food bars can also refresh interest in longstanding menu items. Surprise students with a Latin American-themed taco bar. Offer students warmed whole grain-rich tortillas or taco shells with their choice of pulled Cuban-style pork, Peruvian-flavored chicken, chipotle seasoned tofu, or reduced-fat cheese, and a host of toppings like black beans, lettuce, and fresh salsa. This allows students the opportunity to be creative and helps decrease waste, because students are more likely to choose only what they want to consume. Train your staff to encourage portions that meet reimbursable meal requirements in a positive way.

Remember food safety is critical. Refer to chapters 2 and 3 for more information on produce and salad bar food safety.

### **Salad Bars Increase Fruit and Vegetable Consumption**

In Rockaway Township Schools, Copeland Middle School showcases a “Fitness Friday” salad bar and fitness stations. It is a collaborative effort between the Food Service Department and the Physical Education Department. Starting at the cafeteria, students visit stations throughout the school, where school nutrition staff and gym teachers encourage students to be active and to partake in healthy eating practices.



**A colorful salad bar is a central feature of “Fitness Fridays” at Rockaway Township Schools.**

The main lunch option is a very popular, colorful, and beautifully displayed salad bar. The main entree selection on Fitness Friday swells from 60 to 70 meals to 125-150 with students lining up out the door! By combining this grand presentation of healthy food choices with physical activity, the district encourages students to have healthier lifestyles both in and out of school.



**School District:**  
Rockaway  
Township Public  
Schools

**Located:**  
Rockaway, New  
Jersey

**Enrollment:**  
2,300

**Website:**  
[www.rocktwp.net](http://www.rocktwp.net)

### Join the Alliance for a Healthier Generation's Healthy School Program

The Alliance for a Healthier Generation's Healthy Schools Program (HSP) (<https://www.healthiergeneration.org/>) takes a comprehensive approach to school wellness. HSP's website offers many tools for school nutrition programs, from recipes to promotion ideas. The program supports development of wellness policies and provides strategies for:

- Increasing physical activity opportunities before, during, and after school
- Enhancing nutrition education
- Establishing school employee wellness programs.

Joining the HSP encourages stakeholders to work together to achieve success in all areas of wellness. HSP supports schools through professional development, such as on-demand and live trainings, success stories, and hundreds of science-based resources.

### Communicating With the School Community to Create a Culture of Food Safety

Are you a food safety leader in your school community? You can be! As you have learned in this chapter, building relationships in the school community is a critical part of marketing. In earlier chapters, you read about the *Food-Safe Schools Action Guide* (Action Guide) (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>) and creating a culture of food safety. The partnerships you build in your marketing efforts dovetail with creating a culture of food safety. The Action Guide includes an entire section filled with strategies, tips, and resources to effectively communicate your food safety messages and efforts to other school community members. For example, offer to provide allergy awareness training for teachers, administrators, parents, and other school partners. By reaching out to partners, you will improve food safety in your school community and succeed in creating a culture of food safety. Through those same efforts, you will be marketing your school nutrition program.



**School District:**  
Liberty County  
School System

**Located:**  
Hinesville, Georgia

**Enrollment:**  
10,400

**Website:**  
[www.liberty.k12.ga.us/](http://www.liberty.k12.ga.us/)

### Build Your Salad/Sub Bar

Liberty County School System increased fruit and vegetable consumption by creatively offering a "Build Your Salad/Sub Bar." These food bars offer a variety of vegetable choices that rotate to accommodate a variety of tastes. Production records showed Lewis Frasier Middle School salad consumption rose from 8 to 10 a day to over 75 salads a day. Students increased fruit and vegetable consumption throughout the following school year. Thereafter, Lewis Frasier Middle School averaged 90 salads per day!



In Liberty County School System, preportioned lettuce is at the start of the "Build Your Salad/Sub Bar."

### Making the Most of Your Menus (and Website)

When it comes to marketing, menus are your best marketing tool. Your customers read these every day in printed copy or on the school's website. In fact, students often decide to purchase lunch based solely on the day's menu or the promotions announcing it.

Menus also communicate information about the program to parents, teachers, and school administrators. Because menus list selling prices of lunches and a la carte items, this is your best opportunity to show that the complete lunch is the best buy. Here are some other tips:

- Send menus or fliers promoting online menus home with students. Include your email address and phone number, and let parents know that they can contact you.
- Put activities on the back of printed menus. Reward students for completing the activities at home with their parent/guardian.
- Use menus or other promotional fliers as tray liners. Include nutrition facts and activities on tray liners to promote menus and behaviors that contribute to overall health – like eating more legumes and suggestions for physical activities.
- Tell why school meals are a healthy choice. Target information to parents about the nutritional value of the meals you are offering. Parents may be more interested in nutrition than students. Target your messages to your audiences.

Go ahead and brag! Let your customers know about recognition that you have received for your efforts to serve healthy meals through initiatives such as the HSP, Farm to School, Team Nutrition, and Salad Bars to Schools.

### Planning Successful Promotions

Promotions can be big or small, short or long, and can reach many different audiences. Begin by identifying *what you want to achieve* and *whom you want to reach* with a particular promotion.

For example, you might plan a short promotion for back-to-school night targeting parents. Showcase why school meals are a smart choice with an attractive display. To interest students, you might plan a series of festive meals, complete with costumes for your staff or classroom tasting parties.

A promotion provides an excellent opportunity to introduce new menu items. However, don't overdo it. Show only one new food item at a time. A total of two or three in a month is plenty! Here is how to ensure success:

- Make the new food item sound appealing on the printed menu.
- Conduct a taste test to generate interest for an upcoming menu item.
- Display TN's colorful posters that show foods in exciting ways. These can be ordered for free at <https://pueblo.gpo.gov/TN/TNPubs.php> or via email at [TeamNutrition@usda.gov](mailto:TeamNutrition@usda.gov).

Your efforts to get students' attention need to be ongoing. It is easy to get busy with other program needs. Be sure to budget time to make promotions happen. Your customers will come to expect the promotions and be disappointed if there are none. See Appendix 7.B for more promotional tools and ideas.

## CONCLUSION

Put aside a set amount of your budget, time, and staff resources to plan, implement, and evaluate marketing efforts each year. Build on previous successes. Use existing research and resources, your imagination, and ideas from community-wide partnerships. Make your cafeteria *the place* for great food and fun.

Let's summarize some key points of this chapter:

- The marketing mix includes Product, Price, Promotion, Placement...and People!
  - Today, marketing places an emphasis on the relationship with the customer.
  - School nutrition programs must provide outstanding customer service to satisfy customers.
  - Involve school community partners to help influence students to choose your nutrition program.
- Many educational resources and tools are available to help you develop a marketing plan for your school nutrition program, including:
  - Institute of Child Nutrition (ICN)
  - Resources at the State, district, and community level.
- Marketing includes planning, implementation, and evaluation.
- Marketing strategies to encourage children to make healthy selections by providing them with a full spectrum of choice:
  - Manage Portion Sizes.
  - Increase Convenience.
  - Improve Visibility.
  - Enhance Taste Expectations.
  - Utilize Suggestive Selling.
- Take advantage of initiatives and promotions such as Farm to School, Team Nutrition, and the Alliance for a Healthier Generation's Healthy School Program.

Your marketing plan is an investment in the future success of your school nutrition operation. Use marketing principles in your school nutrition program to benefit your students. Be sure to revisit and evaluate your program at least annually to maximize effectiveness.

Start small and build according to your successes. Invest in marketing—the rewards to your program will be great!

Menu planning is a continual process. You can revisit this resource to evaluate and make continual improvements in all aspects of menu planning, from menu development to documentation, production, procurement, food safety, and menu accommodations in addition to marketing.

**Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.**



1. The marketing mix includes five Ps: Product, Price, Promotion, Placement and \_\_\_\_\_? Explain why the fifth P is so important.
2. What are the four steps in creating a marketing plan?
3. What is a free resource you can use to assess your school nutrition program's marketing efforts?
4. Name at least three marketing strategies that encourage children to make healthy choices.
5. What are SMART objectives?

**If you got the answers right, great job! If you missed any, review that section of the chapter.**

### LINKS TO ADDITIONAL RESOURCES

Alliance for a Healthier Generation's Healthy Schools Program ([https://www.healthiergeneration.org/take\\_action/schools/](https://www.healthiergeneration.org/take_action/schools/)).

Institute of Child Nutrition, Best Practices for Marketing the School Nutrition Program, University, MS (<https://theicn.org/>).

Institute of Child Nutrition, Introduction to School Nutrition Leadership, University, MS (<https://theicn.org/>).

Institute of Child Nutrition, Focus on the Customer, 2022, University, MS (<https://theicn.org/>).

Salad Bars to Schools (<http://www.saladbars2schools.org/>).

U.S. Department of Agriculture, Food and Nutrition Service, Farm to School Program (<https://www.fns.usda.gov/f2s/farm-to-school>).

U.S. Department of Agriculture, Food and Nutrition Service, Food-Safe Schools Action Guide, Alexandria, VA (<https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf>).

U.S. Department of Agriculture, Food and Nutrition Service, Marketing School Breakfast (<https://www.fns.usda.gov/sbp/marketing>).

U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis, School Nutrition Dietary Assessment Study IV, Vol. I: School Foodservice Operations, School Environments, and Meals Offered and Served, by Mary Kay Fox, Elizabeth Condon, Mary Kay Crepinsek, et al. Project Officer, Fred Lesnett, Alexandria, VA (<https://www.fns.usda.gov/school-nutrition-dietary-assessment-study-iv>).

U.S. Department of Agriculture, Food and Nutrition Service, Policy Memo SP07-2015, Assessing Proposed Nutrition Education Costs in the National School Lunch Program and School Breakfast Program, November 2014 (<https://www.fns.usda.gov/cn/assessing-proposed-nutrition-education-costs-nsfp-and-sbp>).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition (<https://www.fns.usda.gov/team-nutrition>).

U.S. Department of Agriculture, Team Nutrition, Print Materials Order Form (<https://pueblo.gpo.gov/TN/TNPubs.php>).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition, School Nutrition Environment and Wellness Resources (<https://www.fns.usda.gov/tn/local-school-wellness-policy-outreach-toolkit>).

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Health and Academic Achievement. Atlanta, GA ([https://www.cdc.gov/healthyouth/health\\_and\\_academics/pdf/health-academic-achievement.pdf](https://www.cdc.gov/healthyouth/health_and_academics/pdf/health-academic-achievement.pdf)).

## APPENDIX ITEMS

**Appendix 7.A** CDC SMART Objectives

**Appendix 7.B** School Promotion Ideas and Tools



# Answer Key



# Answer Key: Check Your Understanding

## CHAPTER 1

1. Grade (age/grade) groups, meal components, meal patterns, dietary specifications
2. Fluid milk, fruits, vegetables, grains, meats/meat alternates
3. Saturated fat, sodium, *trans* fat
4. Hazard Analysis and Critical Control Point (HACCP)
5. A culture of food safety

## CHAPTER 2

1. The primary goal of FBMP is to assist SFAs in planning menus that meet the nutrition goals when averaged over a school week. Lunch provides approximately one-third of calorie and key nutrient needs, and breakfast provides approximately one-fourth of calorie and key nutrient needs for each grade group.
2. This is the minimum amount of each meal component your daily menu must provide for the menu to be reimbursable; this amount varies by meal component, grade group, and meal type. The meal patterns provide specific details on daily minimums. Each component group also has weekly minimum amounts that must be met; weekly totals are included in meal patterns.
3. The minimum creditable amount is the smallest portion you can offer of a food item that credits toward reimbursement. For example,  $\frac{1}{4}$  oz eq of grains or M/MA;  $\frac{1}{8}$  cup of fruits or vegetables.
4.  $\frac{3}{4}$  cup; 1 cup; dark green, red/orange, beans and peas (legumes), starchy, and other vegetables are the five vegetable subgroups.
5. To determine oz eq by product weight:  
 $1.3 \text{ oz} \div 1 \text{ oz standard} = 1.3 \text{ oz}$   
 $1.3 \text{ oz}$  rounds down to 1.25 oz eq grains  
To determine oz eq by grams of creditable grain:  
 $24 \text{ grams per tortilla} \div 16 \text{ gram standard} = 1.5 \text{ oz}$   
 $= 1.5 \text{ oz eq grains}$
6. Offer Versus Serve (OVS) is an option for meal service in which daily required minimum amounts of all meal components are offered, but students have the option to decline items. They must select at least  $\frac{1}{2}$  cup fruit and/or vegetable and full minimum serving amounts of two other meal components for a reimbursable meal. OVS is required for grade group 9–12 and is optional for all other grade groups at lunch; OVS is optional at all grade groups for breakfast. Because OVS offers student choice, it may decrease plate waste.

## CHAPTER 3

1. Any three of the following is correct: Saves time in repetitive functions such as precosting and work schedules; improves the accuracy of forecasting; adapts easily to varied grades and ages; allows flexibility for such things as seasonal changes, availability of USDA Foods, and special events; and allows more time for training and marketing.
2. Incorporate fruits and/or vegetables into the entree, use a salad bar, package them conveniently, display them prominently in the serving line, and train staff to give verbal cues.
3. Color, flavor, and texture. Notice that this meal is also missing a grains serving, so it would not be reimbursable.

4. Staff need to monitor salad bars to ensure food-safe habits of students; to make sure students select sufficient serving amounts to meet reimbursable meal criteria; and to replenish foods as they deplete, which is especially important when salad bars are used to meet weekly requirements for vegetable subgroups.
5. Place the unflavored milk in front or first in line with flavored milk behind.

### CHAPTER 4

1. In the first step, the menu planner completes items in advance that help staff produce the meal (menu items, recipes or products, grade groups, portion sizes, etc.). In the second step, staff completes remaining sections on the day of service (number of servings prepared, students served, adults served, a la carte meals served, leftovers, etc.).
2. Any three of the following is correct: Reliable nutrition content, food-safe practices, product quality and quantity management, reliable production forecasting, cost control, and positive expectations.
3. Recipe verification, product evaluation, and quantity adjustment.
4. Instructions, monitoring procedures, corrective actions, verification procedures, and record keeping procedures.
5. Processes or procedures that ensure safe-food handling practices in your school nutrition operations. With the Process Approach, your menu items/recipes are categorized by the appropriate process (No Cook, Same Day Service, and Complex Food Preparation) and supported by SOPs for each process method in your food safety program.

### CHAPTER 5

1. Forecasting estimates the quantity of foods, products, and/or services needed using historical information from menus, production records, and participation. It helps ensure financial success by minimizing overestimating and underestimating quantities.
2. The marketing guide section of a recipe lists the amount of ingredients to purchase (as purchased) that will trim to the recipe quantity (edible portion). Including marketing guides in recipes helps prevent underestimating and overestimating.
3. Any of the following is correct. Utilize: USDA Foods, USDA DoD Fresh, purchasing co-ops, statewide bids, local foods in season, Farm to School options, and school gardens.
4. Solicitation documents need to request information on calories, saturated fat, and sodium content and specify that foods are labeled as 0 grams (<0.5 g) *trans* fat per serving. In addition, processed foods should provide component contribution(s) through a Child Nutrition (CN) label or Product Formulation Statement. If products are also sold a la carte or through other sources on campus during the school day, the products need to meet Smart Snacks criteria.
5. Any of the following is correct: Projecting your food needs; knowing where and how much food is on hand; practicing First In, First Out (FIFO) inventory management; controlling waste, theft, and loss; maintaining sufficient inventory for meal production without overstocking; being able to trace food within district storage facilities and back to its source; receiving and storing food safely.

## CHAPTER 6

1. Required; permitted
2. The licensed physician (or other State-recognized medical authority) completes and signs a form that identifies: the student's condition that meets the definition of disability; how the diet-related disability affects the student's major life activities or major bodily functions; foods restricted in the student's diet; appropriate substitutions. The school nutrition program receives the documentation prior to making any modifications to the reimbursable meal.
3. A food allergy is an abnormal response to a food protein, triggered by the body's immune system. A food intolerance occurs when the body's digestive tract reacts abnormally to a food, but does not involve the immune system. Gastrointestinal symptoms of an allergic reaction or intolerance may be similar.
4. Milk; eggs; peanuts; soy; wheat; tree nuts (example, almonds, walnuts, pecans); fish; shellfish (example: crab, lobster, shrimp); sesame.
5. Preventing cross-contact, cleaning and sanitizing equipment, avoiding bare-hand contact with ready-to-eat foods.

## CHAPTER 7

1. The fifth P is People, which is a focus on the customer or customer relationships. Building relationships with customers drives the marketing plan and helps ensure satisfaction and increased participation.
2. Engage stakeholders, conduct market research, draft the plan, communicate the plan to stakeholders.
3. ICN Best Practices for Marketing the School Nutrition Program self-assessment checklist.
4. Manage portion sizes, increase convenience, improve visibility, enhance taste expectations, utilize suggestive selling.
5. SMART stands for Specific, Measurable, Achievable, Realistic, and Time-Phased. SMART objectives help ensure you develop a plan that you are able to evaluate.



# Glossary of Terms



# Glossary of Terms

## **A La Carte**

Food items available for cash sale independent of the reimbursable meal.

## **Active Managerial Control (AMC)**

Taking a preventive, rather than reactive, approach to food safety by understanding and consistently applying the school food safety plan to prevent, eliminate, or reduce the occurrence of risks that may result in foodborne illness.

## **Administrative Review (AR)**

The comprehensive offsite and onsite evaluation of all school food authorities participating in the Program. The term “Administrative Review” is used to reflect a review of both critical and general areas.

## **Administrative Review Manual**

The comprehensive manual developed by USDA Food and Nutrition Service to guide State agencies through the Administrative Review process.

## **Afterschool Snack Service**

A Federal snack program operating in public and nonprofit private schools and residential child care institutions. To qualify, a school district must participate in the National School Lunch Program and sponsor or operate an afterschool care program that provides educational or enrichment activities in a supervised environment.

## **Allergen**

A protein in a food item that stimulates an allergic reaction.

## **Alliance for a Healthier Generation**

A nonprofit organization that serves as a catalyst for children’s health with a goal to reduce the prevalence of childhood obesity and empower kids to develop lifelong healthy habits. Founded by the American Heart Association and the Clinton Foundation, the Alliance works with schools, companies, community organizations, healthcare professionals, and families to transform the conditions and systems that lead to healthier kids.

## **Americans with Disabilities Act (ADA)**

A civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The ADA was enacted in 1990 and amended in 2008.

## **As Purchased (AP)**

The form(s) in which a food is purchased.

## **Average Daily Participation (ADP)**

The average number of students who participate in either the National School Lunch Program or the School Breakfast Program daily, based on school attendance (not enrollment). When determining participation by eligibility category for Administrative Reviews, it means the average number of children, by eligibility category, participating in the program each operating day. These numbers are obtained by dividing (a) the total number of free lunches claimed during a reporting period by the number of operating days in the same period; (b) the total number of reduced-price lunches claimed during a reporting period by the number of operating days in the same period; and (c) the total number of paid lunches claimed during a reporting period by the number of operating days in the same period.

### **Beans and Peas (Legumes)**

The mature forms of legumes. They include kidney beans, pinto beans, black beans, lima beans, black-eyed peas, garbanzo beans (chickpeas), split peas, and lentils. They are available in dry, canned, and frozen forms. They can credit toward the beans and peas (legumes) vegetable subgroup or meats/meat alternates component.

### **Broker**

An independent sales agent who negotiates sales for manufacturers by working with food distributors and school nutrition operations. The broker assists manufacturers by introducing new products to the school nutrition market. Brokers can assist the school food authority staff by providing samples for taste-testing to the districts.

### **Build-A-Lunch**

A menu item that offers several meal components and allows students to choose foods for a reimbursable meal.

### **Buy American Provision**

Requires school food authorities to purchase, to the maximum extent practicable, domestic commodities or products.

### **Calories**

The measurement of energy provided by foods and one of the dietary specifications for school meals. Each grade group meal pattern, lunch and breakfast, has a calorie range based on daily average for the menu week.

### **Celiac Disease**

A medical condition in which the immune system is abnormally sensitive to gluten, a protein found in wheat, rye, and barley.

### **Certification of Compliance Worksheets or Menu Planning Tool for Certification for Additional Performance-Based Reimbursement**

USDA-developed tools to demonstrate that menus meet components and dietary specifications to qualify for an additional per lunch reimbursement. They are also known as menu worksheets.

### **Child**

(a) A student of high school grade or under as determined by the State educational agency, who is enrolled in an educational unit of high school grade or under as described in the definition of “School,” including students who are mentally or physically disabled as defined by the State and who are participating in a school program for the mentally or physically disabled; or (b) a person under 21 chronological years of age who is enrolled in a residential child care institution; or (c) for purposes of reimbursement for meal supplements served in afterschool care programs, an individual enrolled in an afterschool care program operated by an eligible school who is 12 years of age or under, or in the case of children of migrant workers and children with disabilities, not more than 15 years of age.

### **Child and Adult Care Food Program (CACFP)**

The program authorized under the National School Lunch Act that provides reimbursement for healthy foods served to infants, children, and adults in day care in accordance with 7 CFR 226.

### **Child Nutrition (CN) Labeling**

A program that provides manufacturers the option to include a standardized food crediting statement on their product label. CN labels must be authorized by USDA, Agricultural Marketing Service (AMS) prior to being used. Manufacturers must have an approved quality control (QC) program and inspection oversight that meet FNS, Child Nutrition Programs requirements. CN labeled products are generally purchased by Program operators for USDA meal programs. Benefits of CN labels are that they clearly identify the contributions of the product toward the meal pattern requirements and provide a warranty against audit claims if the CN label is used according to manufacturer’s directions.

It is important to know, the CN logo (the box with CN on each side that surrounds the meal pattern contribution statement) is one of the four integral parts of a label, which also includes the product name, ingredient statement, and inspection legend. All four parts must be on the product carton in order for the CN label to be valid.

**Child Nutrition Act of 1966**

A law enacted by Congress in 1966 (42 USC 1773 et seq.) to strengthen and expand domestic food service programs for children under the authority of the Secretary of Agriculture. These programs include Special Milk and School Breakfast Programs and State Administrative Expense Funds (SAE).

**Child Nutrition Programs**

Include the National School Lunch Program (7 CFR 210) (including the Fresh Fruit and Vegetable Program, the Seamless Summer Option, and afterschool snacks), Special Milk Program (7 CFR 215), School Breakfast Program (7 CFR 220), and the Food Distribution Program, as it relates to the donation of food to schools participating in the Child Nutrition Programs.

**Child Nutrition Programs: Transitional Standards for Milk, Whole Grains, and Sodium**

This final rule established transitional standards to support the continued provision of nutritious school meals as schools respond to and recover from the pandemic and while USDA engages in notice-and-comment rulemaking to update the meal pattern standards to more comprehensively reflect the Dietary Guidelines for Americans 2020-2025.

**Code of Federal Regulations (CFR)**

The codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. Child nutrition regulations are contained in Title 7 of the CFR.

**Control Measures**

Steps to reduce food contamination or bacterial growth.

**Cost Reimbursable Contract**

A formal, legally enforceable contract that reimburses the vendor for costs incurred under the contract, but does not provide for any other payment to the vendor, with or without a fixed fee. Allowable costs will be paid from the nonprofit school nutrition account to the vendor net of all discounts, rebates, and other applicable credits occurring to or received by the vendor.

**Creditable (and Non-creditable)**

How a food contributes toward the required component for reimbursement. *The Food Buying Guide for Child Nutrition Programs* (FBG) provides crediting information for all meal components. Non-creditable foods are either portions of components too small to count toward crediting or foods that do not fit into one of the five meal components.

**Critical Control Points (CCPs)**

Points in food preparation where process control (example — cooking) is essential to keep food safe.

**Critical Limits**

A time and temperature range for food preparation and service for keeping food safe (hot — 135 °F or higher or cold — 41 °F or lower).

**Cross-Contact**

A potentially hazardous condition that occurs when allergens from one food or surface come in contact with other foods or surfaces that do not normally contain that allergen.

**Culture of Food Safety**

Behaviors and beliefs about food safety within an organization; exists when food-safe behaviors are second nature to the members of your school community — your school nutrition team, school administrators, teachers, parents, and students — and these behaviors are consistently practiced to help keep students healthy and safe.

**Customer Relationship**

How your organization relates to and communicates with its customers (students, parents, teachers, administrators, etc.).

### **Cycle Menu**

A set of meal components and food items that are different for each day during a set period of time (cycle) and repeated.

### **Daily Required Minimum Serving Amount**

The amount of a food that meets the meal pattern requirement for a component in a specific meal. Amounts differ for meal patterns, components, and by grade group at lunch and breakfast.

### **Day of Review (Administrative Review)**

The day(s) on which the onsite review of the individual sites selected for review occurs.

### **Diet Order or Diet Prescription**

Terms used for the information provided by the physician's statement for students with disabilities requiring dietary restrictions. This information must include the student's dietary needs, foods restricted in the student's diet, and appropriate substitutions.

### **Dietary Guidelines for Americans**

Science-based recommendations issued every 5 years by the U.S. Departments of Agriculture and Health and Human Services which serve as the cornerstone for all Federal nutrition education and program activities; they are based on scientific evidence on health-promoting diets in people who represent the general U.S. population, including those who are healthy, those at risk for diet-related diseases, and those living with these diseases.

### **Dietary Reference Intakes (DRIs)**

Nutrient reference values developed by the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine; formerly known as the Institute of Medicine or IOM.

They are intended to serve as a guide for good nutrition and provide the scientific basis for the development of food guidelines in both the United States and Canada.

### **Dietary Specifications**

Specific limits per grade group for calories, saturated fat, sodium, and *trans* fat averaged over the school week and which apply to breakfast and lunch separately.

### **Dietary Specifications Assessment Tool**

The set of questions used to assess compliance with meal pattern requirements and dietary specifications during the offsite activities and conducted by the State agency as part of the onsite review.

### **Diet-Related Disability (Student With)**

Any child who has a physical or mental impairment as defined in 7 CFR 15(b)(3) of USDA's Section 504 nondiscrimination regulations and 28 CFR 35.108 in the ADA.

### **Disability**

A physical or mental impairment as defined by the ADA and Section 504, that substantially limits major life activities or bodily functions.

### **Disability That Restricts the Diet**

A physical or mental impairment that substantially limits major life activities or bodily functions, which, when restricting the diet, must be accommodated in school meal programs; requires documentation by a licensed physician or, at a State agency's discretion, a State-recognized health care professional who is authorized to write medical prescriptions under State law.

### **Distributor**

A commercial food company that purchases, receives, and/or stores commercial food products. Distributors sell, deliver, and bill the Recipient Agency for goods and/or services provided. A distributor sells the products made by manufacturers.

### **Edible Portion (EP)**

The amount of a food that can actually be eaten, after trimming and cooking.

### **Enriched Grains**

Refined grains that have been processed in a way that removes the nutrient-rich bran and germ, then have thiamin, riboflavin, niacin, folic acid, and iron added after processing, as required by the Federal standard of identity for products labeled as "enriched."

**Entree (Main Dish for Smart Snacks in School)**

An item that is served as the main dish and is either:

- (i) A combination food of meat or meat alternate and whole grain rich item; or
- (ii) A combination food of vegetable or fruit and meat or meat alternate; or
- (iii) A meat or meat alternate alone with the exception of yogurt, low-fat or reduced-fat cheese, nuts, seeds, nut or seed butters, and meat snacks (such as dried beef jerky); or
- (iv) A whole grain-rich item that is served as the main dish of the School Breakfast Program reimbursable meal.

**Farm to School Program**

Efforts that connect schools with local or regional producers in order to serve local or regionally produced foods in school cafeterias; improve student nutrition; provide agriculture, health and nutrition education opportunities; and support local and regional farmers.

**Fat-Free Milk**

Fluid milk with milkfat removed, also called nonfat or skim milk. Unflavored and flavored fat-free milk are two of the allowable choices of fluid milk in school meals.

**Federal Poverty Line (Poverty Thresholds)**

A simplified version of the Federal poverty thresholds used for administrative purposes – for example, determining financial eligibility for certain Federal programs. They are issued each year in the Federal Register by the Department of Health and Human Services (HHS).

**First In, First Out (FIFO)**

An inventory accounting method by which the first items placed in inventory (i.e., foods and other meal service goods) are the first items used in meal preparation and production.

**Fixed Price Contract**

A cost reimbursable contract where a fixed amount of money is agreed upon at its inception. The fixed fee includes the vendor's direct and indirect administrative costs and profit allocable (being allocated) to the contract.

**Fluid Milk Component**

The meal component in Nutrition Standards for School Meals that includes unflavored or flavored fat-free and 1% (low-fat) milk.

**Food Allergy**

A medical condition where the body exhibits a specific and reproducible immune response to certain foods.

**Food and Nutrition Service (FNS)**

The agency under the United States Department of Agriculture responsible for administering the National School Lunch, School Breakfast, Special Milk, and other nutrition and food assistance programs.

**Food Buying Guide for Child Nutrition Programs (FBG)**

The authoritative guide developed by USDA to help child nutrition professionals determine purchase amounts of foods for crediting meal components in food-based menu planning. The FBG and related resources are available at (<https://foodbuyingguide.fns.usda.gov>).

**Food Insecurity**

A condition that exists when there is limited access to food due to a lack of money and/or other resources.

**Food Intolerance**

A medical condition that occurs when the body's digestive tract reacts abnormally to certain foods; does not involve the immune system.

### **Food Item**

A specific food offered within the five meal components: fluid milk, fruits, vegetables, grains, and meats/meat alternates. For example, a hamburger patty on a bun is one food item with two of the five meal components (meats/meat alternates and grains).

### **Food Production Record**

Documentation of what foods were prepared and served. This documentation is necessary to support the claim for reimbursable meals and to identify information needed for the nutrient analysis.

### **Food Supply Chain**

A group of stakeholders who have specific responsibilities involved in the procurement process. Each stakeholder operates as an independent business and each has specific sustainability goals. The school nutrition food supply chain includes the school food authority staff, the distributor, the manufacturer, and the USDA.

### **Food-Based Menu Planning (FBMP)**

The method for meal planning for the National School Lunch Program and School Breakfast Program that includes required quantities from specific meal components for daily and weekly meal patterns. These components are: fluid milk, fruits, vegetables (including subgroups), grains, and meats/meat alternates. Minimum portion sizes are established by ages and grade groups.

### **Foodborne Illness**

Any illness that results from eating contaminated food or beverages.

### **FoodData Central**

A USDA database featuring nutrition information for foods. It is the major source of food composition data in the United States. It provides the foundation for most food composition databases in the public and private sectors.

### **Food-Safe Schools**

A school-wide approach to food safety, that, with the help of partners in the school community, creates a culture of food safety. Food-safe schools have two main ingredients – first, they are built on comprehensive procedures, policies, and plans that address the science of food safety. Second, they address people’s behavior to encourage the use of food safety procedures, policies, and plans.

### **Forecasting**

The process of analyzing current and historical data to determine future trends. In the case of school nutrition programs, forecasting involves predicting and estimating the goods, works, and services needed in specified areas for the coming year, and/or assessing needs by reviewing current procurement activities. Forecasting allows for procurement plans to evolve each fiscal year.

### **Fresh Fruit and Vegetable Program (FFVP)**

A program under the National School Lunch Act that provides funding to States to make free fresh fruits and vegetables available in eligible elementary schools.

### **Fruits Component**

The meal component in Nutrition Standards for School Meals that is comprised of fruits (fresh, frozen, canned, dried, and pasteurized full-strength juice). Up to half of fruit offerings may be in the form of full-strength juice.

### **Geographical Preferences**

A product specification that places preference on foods produced locally or within a specific geographical area.

### **Global Trade Item Number (GTIN)**

A specific code used by a company to uniquely identify and trace an item at any point in the supply chain. In school nutrition, the GTIN may be applicable in the Child Nutrition Database (CNDB) or USDA Foods Database, during an active food recall and in general inventory management.

**Gluten Intolerance**

A physiological intolerance of foods containing the protein gluten found in wheat, barley, rye, and triticale.

**Good Agricultural Practices (GAP) and Good Handling Practices (GHP)**

A collection of principles that apply to on-farm production and post-production processes. The Food and Drug Administration published guidance in 1998 to outline eight basic principles of microbial food safety within the realm of growing, harvesting, packing, and transporting fresh produce. Using these principles, farmers can develop proactive, preventive controls to reduce the opportunity for microbiological, chemical, and physical hazards that affect the safety of the produce.

**Grab-And-Go Kiosk**

A method of meal service that allows students to quickly select a meal from a preassembled option, often packaged in a bag.

**Grade Group (Age/Grade Group)**

USDA-established groupings used for menu planning that reflect the grade structure of the majority of schools: K-5 (ages 5-10), 6-8 (ages 11-13), and 9-12 (ages 14-18).

**Grains Component**

The meal component in Nutrition Standards for School Meals that is comprised of cereal grains and products made from their flours. At least 80% of foods credited toward the grains component in school meals must be whole grain-rich and any remaining must be made with enriched grains.

**Hazard Analysis**

A review of a food service operation to identify areas where food safety problems may occur.

**Hazard Analysis and Critical Control Point (HACCP)**

A systematic approach to identifying, evaluating, and controlling food safety risks.

**Health and Medicine Division (HMD) of the National Academies of Sciences, Engineering, and Medicine; formerly known as the Institute of Medicine or IOM**

An independent, nonprofit organization that works outside of government to provide unbiased and authoritative advice to decision makers and the public. This division is part of the National Academy of Science, Engineering, and Medicine (the Academies).

**Institute of Child Nutrition (ICN)**

The only federally funded national center dedicated to applied research, education and training, and technical assistance for Child Nutrition Programs. It is located on the campus of the University of Mississippi, within the School of Applied Sciences.

**Invitation for Bid (IFB)**

A type of solicitation document used in sealed competitive bidding in which the primary consideration is cost; the expectation is that competitive bids will be received and an acceptance (award) will be made to the responsive and responsible vendor/bidder whose bid is the lowest price. An IFB is a formal method of procurement that uses sealed bidding and results in a fixed price contract with or without adjustment factors. The IFB must be publicly advertised; and bids shall be solicited from an adequate number of known suppliers, providing them with sufficient time to respond prior to the date set for opening bids. Also, the IFB should describe the minimum standards expected of a responsible vendor/bidder in measurable terms.

**Just In Time (JIT)**

A system of receiving goods as close as possible to when they are actually needed. For schools, this is often several times weekly for milk, fruit, and vegetables, and weekly for other foods and supplies depending on storage capacity and terms of procurement contracts.

**Lactose Intolerance**

A physiological intolerance of foods containing the sugar lactose found in milk and milk products.

### **Licensed Physician**

According to State law, the person authorized to provide a medical statement that identifies a student with a disability that restricts the diet. Or, at the State agency's discretion, a disability may be documented by a State-licensed health care professional who is authorized to write medical prescriptions under State law.

### **Local Educational Agency (LEA)**

A public board of education or other public or private nonprofit authority legally constituted within a State having administrative control of schools.

### **Low-Fat Milk**

Fluid milk with 1% milk-fat content. Unflavored or flavored 1% (low-fat) milk are two of the allowable choices of fluid milk in school meals.

### **Main Dish (Entree for Smart Snacks in School)**

An item that is served as the main dish and is either:

- (i) A combination food of meat or meat alternate and whole grain rich item; or
- (ii) A combination food of vegetable or fruit and meat or meat alternate; or
- (iii) A meat or meat alternate alone with the exception of yogurt, low-fat or reduced-fat cheese, nuts, seeds, nut or seed butters, and meat snacks (such as dried beef jerky); or
- (iv) A whole grain-rich item that is served as the main dish of the School Breakfast Program reimbursable meal.

### **Major Life Activities**

A category of disabilities defined by the Americans with Disabilities Act that includes:

- (i) Caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, sitting, reaching, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, writing, communicating, interacting with others, and working; and
- (ii) The operation of a major bodily function, such as the functions of the immune system, special sense organs and skin, normal cell growth, and digestive, genitourinary, bowel, bladder, neurological, brain, respiratory, circulatory, cardiovascular, endocrine, hemic, lymphatic, musculoskeletal, and reproductive systems. The operation of a major bodily function includes the operation of an individual organ within a body system.

### **Marketing Mix (5 Ps)**

The parts of a marketing plan, which is comprised of product (school meals), price, promotion, placement, and people (customers).

### **Meal Component**

One of the five groups that comprise reimbursable meals. The five meal components to be offered to students are: fluid milk, fruits, vegetables, grains, and meats/meat alternates.

### **Meat Alternates**

A subset of the Meats/Meat alternates (M/MA) component that includes foods such as beans and peas (legumes), eggs, cheese, yogurt, nuts, and seeds, which provide protein and other nutrients similar to meat products.

### **Meats/Meat Alternates (M/MA) Component**

The meal component in Nutrition Standards for School Meals that includes meats (beef, pork, poultry, fish, etc.) and meat alternates, such as eggs, cheese, yogurt, beans and peas (legumes) nuts, and seeds.

**Merchandising**

The planning and promotion of sales by presenting a product to the right market at the proper time; by carrying out organized, skillful advertising; by using attractive displays; etc.

**Minimum Creditable Amount**

The smallest portion of a food that contributes toward meal component requirements.

**MyPlate**

A nutrition education tool intended to help consumers make healthier food choices. The graphic represents the five food groups that are the building blocks for a healthy plate.

**National School Lunch Act (NSLA)**

Legislation that established the National School Lunch Program and School Breakfast Program, 7 CFR 210. Formally known as the Richard B. Russell National School Lunch Act, it is a Federal law that governs assistance to States in establishing, maintaining, operating, and expanding Child Nutrition Programs offered through schools.

**National School Lunch Program (NSLP)**

The program authorized under the National School Lunch Act that allows participating schools to operate a nonprofit lunch program in accordance with 7 CFR 210. General and special cash assistance and donated food assistance are made available to schools in accordance with 7 CFR 210.

**Non-creditable Foods**

Portions of meal components too small to count toward crediting or foods that do not fit into one of the meal components, such as jams, gelatins, salad dressings, etc.

**Nondisability Meal Request**

A condition that exists when a person may benefit from a dietary restriction but does not have a disability.

**Nonprofit School Nutrition Account**

The restricted account in which all of the revenue from the school nutrition operations conducted by the school food authority principally for the benefit of school children is retained. This account is used only for the operation or improvement of the nonprofit school nutrition operation. Additionally, any money earned from the school nutrition operation can be used only to operate or improve the program.

**Nutrient Dense**

Foods and beverages that provide vitamins, minerals, and other substances that may have positive health effects with relatively low amounts of saturated fat, sodium and added sugars.

**Nutrition Facts Label**

The standard food label providing nutrition information regulated by the U.S. Food and Drug Administration.

**Nutrition Standards in the National School Lunch and School Breakfast Programs**

The school meal regulations published in 2012 (and subsequent guidance).

**Offer Versus Serve (OVS)**

A provision that allows students to decline a specific number of meal components/food items depending on the menu planning approach used.

**Offsite Assessment**

The Administrative Review activities completed by the State agency with the school food authority's assistance usually prior to the day of review.

**Onsite Assessment**

The Administrative Review activities completed by the State agency with the school food authority's assistance during the review.

**Ounce Equivalent (Oz Eq)**

A weight-based unit of measure for grains and meats/meat alternates components used to determine crediting in CN meal programs that takes into account dry versus cooked grains and variations in meats/meat alternates.

### **Physical or Mental Impairment**

Physical or mental impairment includes, but is not limited to, contagious and noncontagious diseases and conditions such as the following: orthopedic, visual, speech, and hearing impairments, and cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, intellectual disability, emotional illness, dyslexia and other specific learning disabilities, Attention Deficit Hyperactivity Disorder, Human Immunodeficiency Virus infection (whether symptomatic or asymptomatic), tuberculosis, drug addiction, and alcoholism. 28 CFR 35.108

### **Primary Customer**

Students, who are the intended participants in school meal programs.

### **Process Approach to HACCP (Process Approach)**

A Hazard Analysis and Critical Control Point (HACCP) method of grouping menu items into one of three processes depending upon the number of times the food goes through the temperature danger zone (41 °F to 135 °F).

### **Procurement**

A multistep process for obtaining the most responsive goods, products, and/or services at the best possible price. The steps in this process are planning, writing specifications, advertising the procurement, awarding the contract, and managing the contract.

### **Product Formulation Statement (PFS)**

A document that provides specific information about a food product and shows how the food credits toward the Child Nutrition meal pattern citing Child Nutrition Program resources and/or regulations.

### **Production Record**

Documentation of what foods were prepared and served. This documentation is necessary to support the claim for reimbursable meals and to identify information needed for the nutrient analysis.

### **Public Notification of Program Availability**

Public notification (media release) of the availability of the National School Lunch, School Breakfast, and Special Milk Programs, etc., required at the beginning of each school year by the school food authority.

### **Purchasing Cooperative or Collective Purchasing**

A group of school food authorities joined together to collectively purchase products and services in an effort to reduce costs and increase quality for all participants.

### **Recipe Analysis Workbook (RAW)**

A tool within the Food Buying Guide Interactive Web-based Tool developed by USDA Food and Nutrition Service to help school nutrition professionals calculate contributions toward each meal component in a recipe.

### **Recognizable Food Item**

A food that is visible in the breakfast or lunch offered, and allows students to identify the food groups and amounts recommended for consumption at mealtime. Except for noodles made from vegetables that credit toward the vegetables component, foods must be recognizable to be creditable in the National School Lunch and School Breakfast Programs.

### **Reimbursable Meal**

A meal served within one of the Federal nutrition or food assistance programs that meets the USDA meal pattern requirements, served to an eligible student, and priced as an entire meal rather than based on individual food items. Such a meal qualifies for reimbursement with Federal funds.

### **Request for Proposal (RFP)**

A type of solicitation document used for the formal procurement method of competitive proposals. The RFP identifies the goods and services needed and all significant evaluation factors. Once the RFP is publicized, it is used to solicit proposals from a number of sources. Negotiations are conducted with more than one of the sources submitting proposals, and either a fixed price or cost reimbursable type of contract is awarded. Competitive proposals may be used if conditions are not appropriate for the use of competitive sealed bids.

**Rounding Down**

The mathematic process to ensure an accurate crediting calculation by always rounding numbers down, e.g., 1.4 oz eq of grains credits as 1.25 oz eq.

**Salad Bars to School**

An alliance devoted to increasing the number of salad bars in school meal programs founded by the Chef Ann Foundation, National Fruit and Vegetable Alliance, United Fresh Produce Association Foundation, and Whole Foods Market.

**Saturated Fat**

A type of fat that the Dietary Guidelines for Americans recommends should be limited to less than 10 percent of total daily calories; the dietary specification for saturated fat is monitored for the National School Lunch Program and School Breakfast Program at less than 10 percent of total calories per meal daily (averaged over a week).

**School Breakfast Program (SBP)**

The program authorized by Section 4 of the Child Nutrition Act of 1966, which provides meals to children in the morning hours served at or close to the beginning of the child's day at school and which meet the nutritional requirements set out in 7 CFR 220.8.

**School Food Authority (SFA)**

The governing body that is responsible for the administration of one or more schools, and has the legal authority to operate the National School Lunch Program or School Breakfast Program therein or be otherwise approved by Food and Nutrition Service to operate the program(s).

**School Meal Patterns**

Required daily minimum serving amounts of the meal components that constitute the lunch and breakfast meals in school nutrition programs.

**School Meals: Building Blocks for Healthy Children (Health and Medicine Division School Meals Report)**

The 2009 Health and Medicine Division report requested by the USDA to guide development of the Nutrition Standards of the National School Lunch and School Breakfast Programs.

**School Nutrition Director (SND)**

Most typically, the one individual directly responsible for the management of the day-to-day operations of school nutrition service for all participating schools under the jurisdiction of the school food authority.

**School Week**

The period of time used to determine compliance with the meal requirements.

**Seamless Summer Option (SSO)**

Offers school food authorities operating the National School Lunch Program (NSLP) or School Breakfast Program (SBP) a streamlined option for providing summer meals by continuing to follow several of the same operational requirements, such as the NSLP/SBP meal patterns and procedures for filing claims and determining student eligibility. SSO allows SFAs to provide free summer meals in low income areas during the traditional summer vacation periods and, for year-round schools, during school vacation periods longer than 10 school days.

**Seasonality Charts**

Lists of fruits and vegetables by growing and harvest season when produce is at peak freshness and flavor, and usually most affordable.

**Secondary Customers**

Stakeholders who are *not* the primary customer (students) of school nutrition programs.

**Section 504 of the Rehabilitation Act of 1973, as amended (Rehab Act)**

The Rehab Act prohibits discrimination on the basis of disability under any program or activity receiving Federal financial assistance.

**Self-Service Food Bar**

Any location in the food service operation where students serve themselves.

### **Served**

A style of meal service that provides the daily minimum required serving amount of each required meal component to each student and does not allow the student to decline a food or accept a smaller portion.

### **Smart Snacks in School (Smart Snacks)**

Standards that apply to all foods sold to students at school outside of the federally reimbursable meals served through the National School Lunch and School Breakfast Programs.

### **Sodium**

A dietary mineral required for good health; however, high intakes of sodium are associated with increased risk of high blood pressure. The dietary specification for sodium is monitored in school meals.

### **Solid Fats**

Fats that are solid at room temperature (for example, butter, lard, margarine, shortening). These fats tend to be high in saturated fats or may contain commercially created *trans* fats.

### **Solicitation**

A document used by the school food authority to acquire goods, products, and/or services. Solicitations must incorporate a clear and accurate description of the technical requirements for the material, product, and/or service to be procured. Solicitations must also identify all of the requirements the respondents must fulfill and all other factors to be used in evaluating the solicitations.

### **Solicitation Specification**

A concise statement of a set of requirements to be satisfied by a product, material, and/or process.

### **Special Milk Program**

The program under which participating schools receive cash assistance for each half-pint of milk served in accordance with 7 CFR 215.

### **Stakeholders**

People or organizations with an interest in your program, including students, teachers, administrators, parents, and others in the community who are also interested in the well-being of children.

### **Standard Operating Procedure (SOP) (As Relates to Food Safety)**

Written documents that guide practices and procedures for producing safe food. SOPs are part of the required written food safety plan. Key sections of SOPs include instructions, monitoring, corrective actions, verification, and recordkeeping.

### **Standardized Recipe**

A recipe that has been tried, adapted, and retried several times for use by a school nutrition operation. The recipe 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.

### **Standards of Identity (SOI)**

Federal requirements that define what a food product is, its name, and the ingredients that must or may be used in the manufacture of that food. SOIs protect consumers by ensuring labels accurately describe the products contained within the package. An example of a food with a standard of identity is fruit cocktail which is consistent no matter the processor; fruit mix does not have a standard of identity, thus it may vary in proportions and types of fruit included.

### **State Agency (SA)**

The State educational agency or any other agency of the State that has been designated by the Governor or other appropriate executive or legislative authority of the State and approved by the Department to administer the National School Lunch Program or School Breakfast Program in schools, as specified in 7 CFR 210.3(b); or the Food and Nutrition Service Regional Office (FNSRO), where the FNSRO administers the program as specified in 7 CFR 210.3(c).

**State Distributing Agency (SDA)**

The State agency that distributes USDA Foods to school nutrition programs in each State.

**State-Recognized Medical Authority**

The physician or health or medical authority, such as a nurse practitioner, registered dietitian, or other qualified health professional, recognized by a State agency to identify dietary restrictions.

**Summer Food Service Program (SFSP)**

A federally funded, State-administered program that reimburses providers that serve healthy meals to children and teens in low-income areas at no charge primarily during the summer months when school is not in session.

**Targeted Menu Review**

A Targeted Menu Review is a process that takes place during the Administrative Review at one school that is determined to be at the highest risk for nutrition-related violations. The State agency must conduct a Targeted Menu Review in accordance with one of the options described in Administrative Review guidance materials (see your State agency for the most current version of the Administrative Review Manual).

**Team Nutrition (TN)**

An initiative of the USDA Food and Nutrition Service to support the Child Nutrition Programs through training and technical assistance for food service, nutrition education for children and their caregivers, and school and community support for healthy eating and physical activity.

**Technical Assistance**

Guidance or advice provided to the school food authority or school by the State agency or Food and Nutrition Service to improve program operations.

**Temperature Danger Zone**

The temperature range from 41 °F to 135 °F, which promotes growth of bacteria in foods.

**Time/Temperature Control for Safety (TCS)**

A term that refers to a food that requires time/

temperature control for safety to limit pathogenic microorganism growth or toxin formation.

**Time as a Public Health Control (TPHC)**

A requirement for written procedures prepared in advance, maintained in the food establishment, and made available to the regulatory authority if time without temperature control is used as the public health control for holding or displaying foods that require time/temperature control for safety. The maximum time for holding these foods without temperature control is 4 hours and after 4 hours, they must be discarded.

**Traceability**

The ability to follow (trace) a specific food from farm to table; required as part of a food safety program.

**Trans Fat**

A type of dietary fat produced when oils are commercially hydrogenated (for example, some shortenings and margarines). *Trans* fats are associated with increased risk of heart disease. The dietary specification for *trans* fat is monitored in school meals. The nutrition label or manufacturer specifications for all foods served in school meals must indicate 0 (<0.5) grams *trans* fat per serving.

**United States Department of Agriculture (USDA)**

The Federal entity designated by Congress to administer the National School Lunch, School Breakfast, and Special Milk Programs.

**USDA Foods**

USDA Foods are 100% American grown and produced foods purchased by USDA for distribution in Federal feeding programs, such as the National School Lunch Program. All USDA Foods align with the Dietary Guidelines for Americans.

**USDA Department of Defense (DoD)****Fresh Fruit and Vegetable Program**

A program operated by the Defense Logistics Agency at the Department of Defense that allows schools to use USDA Foods entitlement dollars to buy fresh produce.

### **USDA Foods Database**

A database that provides vendor-specific nutrition information to States and school districts to inform menu planning decisions and assist school districts in developing menus that are compliant with Federal requirements for school meals.

### **USDA Foods Product Information Sheets**

Documents that describe the USDA Foods items expected to be available for schools and institutions participating in Child Nutrition Programs. Each document provides a product description, crediting/yield information, culinary tips and recipes, allergen and nutrition information, and food safety information.

### **Vegetable Subgroups**

The five categories of vegetables within the vegetables component required in school lunches across the menu week: dark green, red/orange, beans and peas (legumes), starchy, and other vegetables.

### **Vegetables Component**

The meal component in Nutrition Standards for School Meals that is comprised of vegetables (fresh, frozen, canned, dried, pasteurized full-strength juice) and includes five subgroups (see vegetable subgroups). Up to half of vegetable offerings may be in the form of full-strength juice.

### **Weighted Average**

The method used for nutrient analysis that is based on the projected amount of each food item in the menu, thus giving more 'weight' in the analysis to the food items students select more often.

### **Wellness Policy (Local School Wellness Policy)**

A comprehensive local educational agency policy that establishes goals and guidelines for nutrition education, physical activity, nutrition promotion, and other school-based activities to promote student wellness, prevent and reduce childhood obesity, and provide assurance that school meal nutrition guidelines meet the minimum Federal school meal standards.

### **Whole Grain Resource for the National School Lunch and School Breakfast Programs**

A resource developed by the USDA Food and Nutrition Service to help school programs recognize and serve whole-grain and whole grain-rich products in school meals.

### **Whole Grain-Rich**

The term designated by FNS to indicated grain products in which at least 50 percent of the grain in the product is whole grain. Any remaining grains in the product are enriched. Whole grain-rich products must conform to USDA Food and Nutrition Service guidance to contribute toward the grains component.

### **Whole Grains**

Grains that consist of the intact, ground, cracked, or flaked grain seed whose principal anatomical components — the starchy endosperm, germ, and bran — are present in the same relative proportions as they exist in the intact grain seed.



# Appendixes

## APPENDIX 2.A

### School Breakfast Program (SBP) Meal Pattern

Meal Components	Grades K–5	Grades 6–8	Grades 9–12
<b>Amount of Food<sup>1</sup> Per Week (Minimum per day)</b>			
Fruits (cups) <sup>2,3</sup>	5 (1)	5 (1)	5 (1)
Vegetables (cups) <sup>2,3</sup>	0	0	0
➤ Dark Green	0	0	0
➤ Red/Orange	0	0	0
➤ Beans and Peas (Legumes)	0	0	0
➤ Starchy	0	0	0
➤ Other	0	0	0
Grains (oz eq) <sup>4</sup>	7–10 (1)	8–10 (1)	9–10 (1)
Meats/Meat Alternates (oz eq) <sup>5</sup>	0	0	0
Fluid Milk (cups) <sup>6</sup>	5 (1)	5 (1)	5 (1)
<b>Other Specifications: Daily Amount Based on the Average for a 5-Day Week</b>			
Min - Max Calories (kcal) <sup>7,8</sup>	350–500	400–550	450–600
Saturated Fat (% of total calories) <sup>8</sup>	< 10	< 10	< 10
Sodium Target 1 (mg) (SY 2022-2023 & SY 2023-2024) <sup>8</sup>	≤ 540	≤ 600	≤ 640
<i>Trans Fat</i> <sup>8,9</sup>	Nutrition label or manufacturer specifications must indicate zero grams of <i>trans fat</i> per serving.		

<sup>1</sup> Food items included in each group and subgroup and amount equivalents. Minimum creditable serving is 1/8 cup.

<sup>2</sup> One quarter cup of dried fruit counts as 1/2 cup of fruit; 1 cup of leafy greens counts as 1/2 cup of vegetables. No more than half of the fruit or vegetable offerings may be in the form of juice. All juice must be 100% full-strength.

<sup>3</sup> Schools must offer 1 cup of fruit daily and 5 cups of fruit weekly. Vegetables may be substituted for fruits, but the first 2 cups per week of any such substitution must be from the dark green, red/orange, beans and peas (legumes) or "Other vegetables" subgroups, as defined in §210.10(c)(2)(iii) of this chapter.

<sup>4</sup> At least 80 percent of the grains offered weekly must be whole grain-rich as specified in FNS guidance, and the remaining grain items offered must be enriched. Schools may substitute 1 oz eq of meats/meat alternates for 1 oz eq of grains after the minimum daily grains requirement is met.

<sup>5</sup> There is no meats/meat alternates requirement.

<sup>6</sup> All fluid milk must be fat-free (skim) or low-fat (1% fat or less). Milk may be unflavored or flavored provided that unflavored milk is offered at each meal service.

<sup>7</sup> The average daily calories for a 5-day school week menu must be within the range (at least the minimum and no more than the maximum values).

<sup>8</sup> Discretionary sources of calories (solid fats and added sugars) may be added to the meal pattern if within the specifications for calories, saturated fat, trans fat, and sodium. Foods of minimal nutritional value and fluid milk with fat content greater than 1% milk fat are not allowed.

<sup>9</sup> Food products and ingredients must contain zero grams of trans fat (less than 0.5 grams) per serving.

## APPENDIX 2.A

### National School Lunch Program (NSLP) Meal Pattern

Meal Components	Grades K–5	Grades 6–8	Grades 9–12
<b>Amount of Food<sup>1</sup> Per Week (Minimum per day)</b>			
Fruits (cups) <sup>2</sup>	2-1/2 (1/2)	2-1/2 (1/2)	5 (1)
Vegetables (cups) <sup>2</sup>	3-3/4 (3/4)	3-3/4 (3/4)	5 (1)
➤ Dark Green <sup>3</sup>	1/2	1/2	1/2
➤ Red/Orange <sup>3</sup>	3/4	3/4	1-1/4
➤ Beans and Peas (Legumes) <sup>3</sup>	1/2	1/2	1/2
➤ Starchy <sup>3</sup>	1/2	1/2	1/2
➤ Other <sup>3,4</sup>	1/2	1/2	3/4
Additional Vegetable to Reach Total <sup>5</sup>	1	1	1-1/2
Grains (oz eq) <sup>6</sup>	8–9 (1)	8–10 (1)	10–12 (2)
Meats/Meat Alternates (oz eq)	8–10 (1)	9–10 (1)	10–12 (2)
Fluid Milk (cups) <sup>7</sup>	5 (1)	5 (1)	5 (1)
<b>Other Specifications: Daily Amount Based on the Average for a 5-Day Week</b>			
Min - Max Calories (kcal) <sup>8</sup>	550–650	600–700	750–850
Saturated Fat (% of total calories) <sup>8</sup>	< 10	< 10	< 10
Sodium Target 1 (mg) (SY 2022-2023)	≤ 1,230	≤ 1,360	≤ 1,420
Sodium Target 1A (mg) (SY 2023-2024) <sup>8</sup>	≤ 1,110	≤ 1,225	≤ 1,280
<i>Trans Fat</i> <sup>8,9</sup>	Nutrition label or manufacturer specifications must indicate zero grams of <i>trans fat</i> per serving.		

<sup>1</sup> Food items included in each group and subgroup and amount equivalents. Minimum creditable serving is 1/8 cup.

<sup>2</sup> One quarter-cup of dried fruit counts as 1/2 cup of fruit; 1 cup of leafy greens counts as 1/2 cup of vegetables. No more than half of the fruit or vegetable offerings may be in the form of juice. All juice must be 100% full-strength.

<sup>3</sup> Larger amounts of these vegetables may be served.

<sup>4</sup> This category consists of “Other vegetables” as defined in paragraph (c)(2)(iii)(E) of this section. For the purposes of the NSLP, the “Other vegetables” requirement may be met with any additional amounts from the dark green, red/orange, and beans/peas (legumes) vegetable subgroups as defined in paragraph (c)(2)(iii) of this section.

<sup>5</sup> Any vegetable subgroup may be offered to meet the total weekly vegetable requirement.

<sup>6</sup> At least 80 percent of the grains offered weekly must be whole grain-rich as specified in FNS guidance, and the remaining grain items offered must be enriched.

<sup>7</sup> All fluid milk must be fat-free (skim) or low-fat (1% fat or less). Milk may be unflavored or flavored provided that unflavored milk is offered at each meal service.

<sup>8</sup> The average daily calories for a 5-day school week menu must be within the range (at least the minimum and no more than the maximum values). Discretionary sources of calories (solid fats and added sugars) may be added to the meal pattern if within the specifications for calories, saturated fat, trans fat, and sodium. Foods of minimal nutritional value and fluid milk with fat content greater than 1% are not allowed.

<sup>9</sup> Food products and ingredients must contain zero grams of trans fat (less than 0.5 grams) per serving.

## APPENDIX 2.B

### Exhibit A: Grain Requirements for Child Nutrition Programs<sup>1,2</sup>

Food Products per Group	Ounce Equivalent (oz eq)	Minimum Serving Size
<b>Group A</b>	<b>Ounce Equivalent (oz eq) for Group A</b>	<b>Minimum Serving Size for Group A</b>
Bread type coating	1 oz eq = 22 gm or 0.8 oz	1 serving = 20 gm or 0.7 oz
Bread sticks (hard)	3/4 oz eq = 17 gm or 0.6 oz	3/4 serving = 15 gm or 0.5 oz
Chow Mein noodles	1/2 oz eq = 11 gm or 0.4 oz	1/2 serving = 10 gm or 0.4 oz
Savory Crackers (saltines and snack crackers)	1/4 oz eq = 6 gm or 0.2 oz	1/4 serving = 5 gm or 0.2 oz
Croutons		
Pretzels (hard)		
Stuffing (dry) <i>Note: weights apply to bread in stuffing</i>		
<b>Group B</b>	<b>Ounce Equivalent (oz eq) for Group B</b>	<b>Minimum Serving Size for Group B</b>
Bagels	1 oz eq = 28 gm or 1.0 oz	1 serving = 25 gm or 0.9 oz
Batter type coating	3/4 oz eq = 21 gm or 0.75 oz	3/4 serving = 19 gm or 0.7 oz
Biscuits	1/2 oz eq = 14 gm or 0.5 oz	1/2 serving = 13 gm or 0.5 oz
Breads - all (for example sliced, French, Italian)	1/4 oz eq = 7 gm or 0.25	1/4 serving = 6 gm or 0.2 oz
Buns (hamburger and hot dog)		
Sweet Crackers <sup>5</sup> (graham crackers - all shapes, animal crackers)		
Egg roll skins		
English muffins		
Pita bread		
Pizza crust		
Pretzels (soft)		
Rolls		
Tortillas		
Tortilla chips		
Taco shells		

<sup>1</sup> In the NSLP and SBP (grades K-12), at least 80 percent of the weekly grains offered must meet the whole grain-rich criteria and the remaining grain items offered must be made from whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product, such as enriched bread, or a fortified cereal. Please note: State agencies have the discretion to set stricter requirements than the minimum nutrition standards for school meals. For additional guidance, please contact your State agency. For all other Child Nutrition Programs, grains must be made from whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product, such as enriched bread, or a fortified cereal. Under the CACFP child and adult meal patterns, and in the NSLP/SBP preschool meals, at least 1 grain serving per day must meet whole grain-rich criteria.

<sup>2</sup> For the NSLP and SBP (grades K-12), grain quantities are determined using ounce equivalents (oz eq). All other Child Nutrition Programs determine grain quantities using grains/breads servings. Beginning Oct. 1, 2021, grain quantities in the CACFP and NSLP/SBP infant and preschool meals will be determined using oz eq. Some of the following grains may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

<sup>5</sup> Allowed in NSLP (up to 2.0 oz eq grain-based dessert per week in grades K-12) as specified in §210.10. May count toward the grains component in the SBP (grades K-12), CACFP, NSLP/SBP infant and preschool meals, and SFSP.

Chart continues on next page

Food Products per Group	Ounce Equivalent (oz eq)	Minimum Serving Size
<b>Group C</b>	<b>Ounce Equivalent (oz eq) for Group C</b>	<b>Minimum Serving Size for Group C</b>
Cookies <sup>3</sup> (plain - includes vanilla wafers) Cornbread Corn muffins Croissants Pancakes Pie crust (dessert pies <sup>3</sup> , cobbler <sup>3</sup> , fruit turnovers <sup>4</sup> , and meats/meat alternate pies) Waffles	1 oz eq = 34 gm or 1.2 oz 3/4 oz eq = 26 gm or 0.9 oz 1/2 oz eq = 17 gm or 0.6 oz 1/4 oz eq = 9 gm or 0.3 oz	1 serving = 31 gm or 1.1 oz 3/4 serving = 23 gm or 0.8 oz 1/2 serving = 16 gm or 0.6 oz 1/4 serving = 8 gm or 0.3 oz
<b>Group D</b>	<b>Ounce Equivalent (oz eq) for Group D</b>	<b>Minimum Serving Size for Group D</b>
Doughnuts <sup>4</sup> (cake and yeast raised, unfrosted) Cereal bars, breakfast bars, granola bars <sup>4</sup> (plain) Muffins (all, except corn) Sweet roll <sup>4</sup> (unfrosted) Toaster pastry <sup>4</sup> (unfrosted)	1 oz eq = 55 gm or 2.0 oz 3/4 oz eq = 42 gm or 1.5 oz 1/2 oz eq = 28 gm or 1.0 oz 1/4 oz eq = 14 gm or 0.5 oz	1 serving = 50 gm or 1.8 oz 3/4 serving = 38 gm or 1.3 oz 1/2 serving = 25 gm or 0.9 oz 1/4 serving = 13 gm or 0.5 oz
<b>Group E</b>	<b>Ounce Equivalent (oz eq) for Group E</b>	<b>Minimum Serving Size for Group E</b>
Cereal bars, breakfast bars, granola bars <sup>4</sup> (with nuts, dried fruit, and/or chocolate pieces) Cookies <sup>3</sup> (with nuts, raisins, chocolate pieces and/or fruit purees) Doughnuts <sup>4</sup> (cake and yeast raised, frosted or glazed) French toast Sweet rolls <sup>4</sup> (frosted) Toaster pastry <sup>4</sup> (frosted)	1 oz eq = 69 gm or 2.4 oz 3/4 oz eq = 52 gm or 1.8 oz 1/2 oz eq = 35 gm or 1.2 oz 1/4 oz eq = 18 gm or 0.6 oz	1 serving = 63 gm or 2.2 oz 3/4 serving = 47 gm or 1.7 oz 1/2 serving = 31 gm or 1.1 oz 1/4 serving = 16 gm or 0.6 oz
<b>Group F</b>	<b>Ounce Equivalent (oz eq) for Group F</b>	<b>Minimum Serving Size for Group F</b>
Cake <sup>3</sup> (plain, unfrosted) Coffee cake <sup>4</sup>	1 oz eq = 82 gm or 2.9 oz 3/4 oz eq = 62 gm or 2.2 oz 1/2 oz eq = 41 gm or 1.5 oz 1/4 oz eq = 21 gm or 0.7 oz	1 serving = 75 gm or 2.7 oz 3/4 serving = 56 gm or 2 oz 1/2 serving = 38 gm or 1.3 oz 1/4 serving = 19 gm or 0.7 oz

<sup>3</sup> Allowed in NSLP (up to 2.0 oz eq grain-based dessert per week in grades K-12) as specified in §210.10 and at snack service in SFSP. Considered a grain-based dessert and cannot count toward the grains component in CACFP or NSLP/SBP infant and preschool meals as specified in §§226.20(a)(4) and 210.10.

<sup>4</sup> Allowable in NSLP (up to 2.0 oz eq grain-based dessert per week for grades K-12) as specified in §210.10. May count toward the grains component in SBP (grades K-12) and at snack and breakfast meals in SFSP. Considered a grain-based dessert and cannot count toward the grains component in the CACFP and NSLP/SBP infant and preschool meals as specified in §§226.20(a)(4) and 210.10.

Chart continues on next page

Food Products per Group	Ounce Equivalent (oz eq)	Minimum Serving Size
<b>Group G</b>	<b>Ounce Equivalent (oz eq) for Group G</b>	<b>Minimum Serving Size for Group G</b>
Brownies <sup>3</sup> (plain) Cake <sup>3</sup> (all varieties, frosted)	1 oz eq = 125 gm or 4.4 oz 3/4 oz eq = 94 gm or 3.3 oz 1/2 oz eq = 63 gm or 2.2 oz 1/4 oz eq = 32 gm or 1.1 oz	1 serving = 115 gm or 4 oz 3/4 serving = 86 gm or 3 oz 1/2 serving = 58 gm or 2 oz 1/4 serving = 29 gm or 1 oz
<b>Group H</b>	<b>Ounce Equivalent (oz eq) for Group H</b>	<b>Minimum Serving Size for Group H</b>
Cereal Grains (barley, quinoa, etc.) Breakfast cereals (cooked) <sup>6 7</sup> Bulgur or cracked wheat Macaroni (all shapes) Noodles (all varieties) Pasta (all shapes) Ravioli (noodle only) Rice	1 oz eq = 1/2 cup cooked or 1 ounce (28 gm) dry	1 serving = 1/2 cup cooked or 25 gm dry
<b>Group I</b>	<b>Ounce Equivalent (oz eq) for Group I</b>	<b>Minimum Serving Size for Group I</b>
Ready to eat breakfast cereal (cold, dry) <sup>6 7</sup>	1 oz eq = 1 cup or 1 ounce for flakes and rounds 1 oz eq = 1.25 cups or 1 ounce for puffed cereal 1 oz eq = 1/4 cup or 1 ounce for granola	1 serving = 3/4 cup or 1 oz, whichever is less

<sup>3</sup> Allowed in NSLP (up to 2.0 oz eq grain-based dessert per week in grades K-12) as specified in §210.10 and at snack service in SFSP. Considered a grain-based dessert and cannot count toward the grains component in CACFP or NSLP/SBP infant and preschool meals as specified in §§226.20(a)(4) and 210.10.

<sup>6</sup> Refer to program regulations for the appropriate serving size for supplements served to children aged 1 through 5 in the NSLP; breakfast served in the SBP, and meals served to children ages 1 through 5 and adult participants in the CACFP. Breakfast cereals are traditionally served as a breakfast menu item but may be served in meals other than breakfast.

<sup>7</sup> In the NSLP and SBP, cereals that list a whole grain as the first ingredient must be fortified, or if the cereal is 100 percent whole grain, fortification is not required. For all Child Nutrition Programs, cereals must be whole-grain, enriched, or fortified; cereals served in CACFP and NSLP/SBP infant and preschool meals must contain no more than 6 grams of sugar per dry ounce.

## APPENDIX 2.C

### Meal Patterns for 3-, 4-, 6- and 7-day weeks

#### Short and Long Week Calculations (rounded to nearest 0.5 oz eq and 0.25 cup)

(Applies to schools that **regularly** operate on a shorter or longer weekly cycle)

- Since the dietary specifications are based on average daily amounts, these are unaffected by varying week lengths (average over length of week, whether consisting of 3 to 7 days)
- Due to size of weekly vegetable subgroup requirements, the 20 percent adjustment is not practical. Therefore, adjustments are primarily made to the “Additional Vegetable” category only—which in turn allows increased or decreased offering amounts of any of the subgroups to meet this requirement.

#### Three Day School Week Meal Component Adjustments

3-DAY SCHOOL WEEK-BREAKFAST	GRADES K–5 Weekly (daily)	GRADES 6–8 Weekly (daily)	GRADES 9–12 Weekly (daily)
Fruits (cups)	3 (1)	3 (1)	3 (1)
Grains (oz eq)	4–6 (1)	5–6 (1)	5.5–6 (1)
Fluid Milk (cups)	3 (1)	3 (1)	3 (1)

3-DAY SCHOOL WEEK-LUNCH	GRADES K–5 Weekly (daily)	GRADES 6–8 Weekly (daily)	GRADES 9–12 Weekly (daily)
Fruits (cups)	1.5 (0.5)	1.5 (0.5)	3 (1)
Vegetables (cups)	2.25 (0.75)	2.25 (0.75)	3 (1)
Dark Green	0.5	0.5	0.5
Red/Orange	0.5	0.5	1
Beans/Peas (Legumes)	0.5	0.5	0.5
Starchy	0.5	0.5	0.5
Other	0.25	0.25	0.5
Additional Veg to Reach Total	0	0	0
Grains (oz eq)	5–5.5 (1)	5–6 (1)	6–7 (2)
Meats/Meat Alts (oz eq)	5–6 (1)	5.5–6 (1)	6–7 (2)
Fluid Milk (cups)	3 (1)	3 (1)	3 (1)

### Four Day School Week Meal Component Adjustments

<b>4-DAY SCHOOL WEEK-BREAKFAST</b>	<b>GRADES K-5</b> Weekly (daily)	<b>GRADES 6-8</b> Weekly (daily)	<b>GRADES 9-12</b> Weekly (daily)
<b>Fruits</b> (cups)	4 (1)	4 (1)	4 (1)
<b>Grains</b> (oz eq)	5.5-8 (1)	6.5-8 (1)	7-8 (1)
<b>Fluid Milk</b> (cups)	4 (1)	4 (1)	4 (1)

<b>4-DAY SCHOOL WEEK-LUNCH</b>	<b>GRADES K-5</b> Weekly (daily)	<b>GRADES 6-8</b> Weekly (daily)	<b>GRADES 9-12</b> Weekly (daily)
<b>Fruits</b> (cups)	2 (0.5)	2 (0.5)	4 (1)
<b>Vegetables</b> (cups)	3 (0.75)	3 (0.75)	4 (1)
<b>Dark Green</b>	0.5	0.5	0.5
<b>Red/Orange</b>	0.75	0.75	1.25
<b>Beans/Peas (Legumes)</b>	0.5	0.5	0.5
<b>Starchy</b>	0.5	0.5	0.5
<b>Other</b>	0.5	0.5	0.75
<b>Additional Veg to Reach Total</b>	0.25	0.25	0.5
<b>Grains</b> (oz eq)	6.5-7 (1)	6.5-8 (1)	8-9.5 (2)
<b>Meats/Meat Alts</b> (oz eq)	6.5-8 (1)	7-8 (1)	8-9.5 (2)
<b>Fluid Milk</b> (cups)	4 (1)	4 (1)	4 (1)

**Six Day School Week Meal Component Adjustments**

<b>6-DAY SCHOOL WEEK-BREAKFAST</b>	<b>GRADES K-5</b> Weekly (daily)	<b>GRADES 6-8</b> Weekly (daily)	<b>GRADES 9-12</b> Weekly (daily)
<b>Fruits</b> (cups)	6 (1)	6 (1)	6 (1)
<b>Grains</b> (oz eq)	8.5-12 (1)	9.5-12 (1)	11-12 (1)
<b>Fluid Milk</b> (cups)	6 (1)	6 (1)	6 (1)

<b>6-DAY SCHOOL WEEK-LUNCH</b>	<b>GRADES K-5</b> Weekly (daily)	<b>GRADES 6-8</b> Weekly (daily)	<b>GRADES 9-12</b> Weekly (daily)
<b>Fruits</b> (cups)	3 (0.5)	3 (0.5)	6 (1)
<b>Vegetables</b> (cups)	4.5 (0.75)	4.5 (0.75)	6 (1)
<b>Dark Green</b>	0.5	0.5	0.5
<b>Red/Orange</b>	0.75	0.75	1.25
<b>Beans/Peas (Legumes)</b>	0.5	0.5	0.5
<b>Starchy</b>	0.5	0.5	0.5
<b>Other</b>	0.5	0.5	0.75
<b>Additional Veg to Reach Total</b>	1.75	1.75	2.5
<b>Grains</b> (oz eq)	9.5-11 (1)	9.5-12 (1)	12-14.5 (2)
<b>Meats/Meat Alts</b> (oz eq)	9.5-12 (1)	11-12 (1)	12-14.5 (2)
<b>Fluid Milk</b> (cups)	6 (1)	6 (1)	6 (1)

### Seven Day School Week Meal Component Adjustments

<b>7-DAY SCHOOL WEEK-BREAKFAST</b>	<b>GRADES K-5</b> Weekly (daily)	<b>GRADES 6-8</b> Weekly (daily)	<b>GRADES 9-12</b> Weekly (daily)
<b>Fruits</b> (cups)	7 (1)	7 (1)	7 (1)
<b>Grains</b> (oz eq)	10-14 (1)	11-14 (1)	12.5-14 (1)
<b>Fluid Milk</b> (cups)	7 (1)	7 (1)	7 (1)

<b>7-DAY SCHOOL WEEK-LUNCH</b>	<b>GRADES K-5</b> Weekly (daily)	<b>GRADES 6-8</b> Weekly (daily)	<b>GRADES 9-12</b> Weekly (daily)
<b>Fruits</b> (cups)	3.5 (0.5)	3.5 (0.5)	7 (1)
<b>Vegetables</b> (cups)	5.25 (0.75)	5.25 (0.75)	7 (1)
<b>Dark Green</b>	0.5	0.5	0.5
<b>Red/Orange</b>	0.75	0.75	1.25
<b>Beans/Peas (Legumes)</b>	0.5	0.5	0.5
<b>Starchy</b>	0.5	0.5	0.5
<b>Other</b>	0.5	0.5	0.75
<b>Additional Veg to Reach Total</b>	2.5	2.5	3.5
<b>Grains</b> (oz eq)	11-12.5 (1)	11-14 (1)	14-17 (2)
<b>Meats/Meat Alts</b> (oz eq)	11-14 (1)	12.5-14 (1)	14-17 (2)
<b>Fluid Milk</b> (cups)	7 (1)	7 (1)	7 (1)

## APPENDIX 2.D

### Preschool Meal Pattern: Breakfast

Select all three components for a reimbursable meal

Meal Component <sup>1</sup>	Minimum Quantities	
	Ages 1–2	Ages 3–5
Fluid Milk <sup>2</sup>	4 fl oz	6 fl oz
Vegetables, fruits, or portions of both <sup>3</sup>	1/4 cup	1/2 cup
Grains (oz eq) <sup>4 5 6 7</sup>	1/2 oz eq	1/2 oz eq

<sup>1</sup> Must serve all three components for a reimbursable meal.

<sup>2</sup> Must be unflavored whole milk for children age 1. Must be unflavored low-fat (1%) or unflavored fat-free (skim) milk for children 2 through 5 years old.

<sup>3</sup> Pasteurized full-strength juice may only be used to meet the vegetable or fruit requirement at 1 meal, including snack, per day.

<sup>4</sup> At least 1 serving per day, across all eating occasions, must be whole grain-rich. Grain-based desserts do not count toward meeting the grains requirement.

<sup>5</sup> Meats and meat alternates may be used to meet the entire grains requirement a maximum of three times a week. One ounce of meat and meat alternates is equal to 1 ounce equivalent of grains.

<sup>6</sup> Breakfast cereals must contain no more than 6 grams of sugar per dry ounce (no more than 21.2 grams of sucrose and other sugars per 100 grams of dry cereal).

<sup>7</sup> Refer to FNS guidance for additional information on crediting different types of grains.

## Preschool Meal Pattern: Lunch

### Select all five components for a reimbursable meal

Meal Component <sup>1</sup>		Minimum Quantities	
		Ages 1–2	Ages 3–5
Fluid Milk <sup>2</sup>		4 fl oz	6 fl oz
Meats/Meat Alternates ( <i>Edible portion as served</i> )	Lean meat, poultry, or fish	1 oz eq	1-1/2 oz eq
	Tofu, soy products, or alternate protein products <sup>3</sup>	1 oz eq	1-1/2 oz eq
	Cheese	1 oz eq	1-1/2 oz eq
	Large egg	1/2	3/4
	Cooked dry beans or peas	1/4 cup	3/8 cup
	Peanut butter or soy nut butter or other nut or seed butters	2 Tbsp	3 Tbsp
	Yogurt, plain or flavored unsweetened or sweetened <sup>4</sup>	4 ounces or 1/2 cup	6 ounces or 3/4 cup
	The following may be used to meet no more than 50% of the requirement: Peanuts, soy nuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 oz eq of nuts/seeds = 1 oz eq of cooked lean meat, poultry, or fish)	1/2 oz eq = 50%	3/4 oz eq = 50%
Vegetable <sup>5 6</sup>		1/8 cup	1/4 cup
Fruits <sup>5 6</sup>		1/8 cup	1/4 cup
Grains (oz eq) <sup>7 8 9</sup>		1/2 oz eq	1/2 oz eq

<sup>1</sup> Must serve all five components for a reimbursable meal.

<sup>2</sup> Must be unflavored whole milk for children age 1. Must be unflavored low-fat (1%) or unflavored fat-free (skim) milk for children 2 through 5 years old.

<sup>3</sup> Alternate protein products must meet the requirements in Appendix A of 7 CFR Part 226.

<sup>4</sup> Yogurt must contain no more than 23 grams of total sugars per 6 ounces.

<sup>5</sup> Pasteurized full-strength juice may only be used to meet the vegetable or fruit requirement at 1 meal, including snack, per day.

<sup>6</sup> A vegetable may be used to meet the entire fruit requirement. When two vegetables are served at lunch or supper, two different kinds of vegetables must be served.

<sup>7</sup> At least 1 serving per day, across all eating occasions, must be whole grain-rich. Grain-based desserts do not count toward the grains requirement.

<sup>8</sup> Refer to FNS guidance for additional information on crediting different types of grains.

<sup>9</sup> Breakfast cereals must contain no more than 6 grams of sugar per dry ounce (no more than 21.2 grams of sucrose and other sugars per 100 grams of dry cereal).

**Preschool Meal Pattern: Snacks**

**Select two of the five components for a reimbursable meal**

Meal Component <sup>1</sup>	Minimum Quantities		
	Ages 1–2	Ages 3–5	
Fluid Milk <sup>2</sup>	4 fl oz	4 fl oz	
Meats/Meat Alternates (Edible portion as served)	Lean meat, poultry, or fish	1/2 oz eq	1/2 oz eq
	Tofu, soy products, or alternate protein products <sup>3</sup>	1/2 oz eq	1/2 oz eq
	Cheese	1/2 oz eq	1/2 oz eq
	Large egg	1/2	1/2
	Cooked dry beans or peas	1/8 cup	1/8 cup
	Peanut butter or soy nut butter or other nut or seed butters	1 Tbsp	1 Tbsp
	Yogurt, plain or flavored unsweetened or sweetened <sup>4</sup>	2 ounces or 1/4 cup	2 ounces or 1/4 cup
	Peanuts, soy nuts, tree nuts, or seeds	1/2 oz eq	1/2 oz eq
Vegetables <sup>5</sup>	1/2 cup	1/2 cup	
Fruits <sup>5</sup>	1/2 cup	1/2 cup	
Grains (oz eq) <sup>6,7,8</sup>	1/2 oz eq	1/2 oz eq	

- 1 Select two of the five components for a reimbursable snack. Only one of the two components may be a beverage.
- 2 Must be unflavored whole milk for children age 1. Must be unflavored low-fat (1%) or unflavored fat-free (skim) milk for children 2 through 5 years old.
- 3 Alternate protein products must meet the requirements in Appendix A of 7 CFR Part 226.
- 4 Yogurt must contain no more than 23 grams of total sugars per 6 ounces.
- 5 Pasteurized full-strength juice may only be used to meet the vegetable or fruit requirement at 1 meal, including snack, per day.
- 6 At least 1 serving per day, across all eating occasions, must be whole grain-rich. Grain-based desserts do not count toward meeting the grains requirement.
- 7 Breakfast cereals must contain no more than 6 grams of sugar per dry ounce (no more than 21.2 grams of sucrose and other sugars per 100 grams of dry cereal).
- 8 Refer to FNS guidance for additional information on crediting different types of grains.

# EXAMPLE

## Menu-Planning Template Grades K–5 Lunch

### APPENDIX 3.A

	MON	TUE	WED	THURS	FRI	WEEKLY TOTAL
<b>Menu</b>						
<b>Meats/Meat Alternates</b> (1 oz eq minimum per day) (8–10 oz eq per week)						
<b>Vegetables</b> (3/4 cup per day) (3 ¾ cups per week)						
Dark green (1/2 cup per week)						
Red/Orange (3/4 cup per week)						
Beans/Peas (Legumes) (1/2 cup per week)						
Starchy (1/2 cup per week)						
Other (1/2 cup per week)						
Additional Vegetable to Reach Total (1 cup per week)						
<b>Fruits</b> (1/2 cup per day) (2 ½ cups per week)						
<b>Grains</b> (1 oz eq per day) (8–9 oz eq per week)						
<b>Fluid Milk</b> (1 cup per day) (5 cups per week)	Fat-free Milk or 1% (8 oz)	5 cups				



# EXAMPLE

## Menu-Planning Template Grades 9–12 Lunch

	MON	TUE	WED	THURS	FRI	WEEKLY TOTAL
<b>Menu</b>						
<b>Meats/Meat Alternates</b> (2 oz eq minimum per day) (10–12 oz eq per week)						
<b>Vegetables</b> (1 cup per day) (5 cups per week)						
Dark green (1/2 cup per week)						
Red/Orange (1 ¼ cup per week)						
Beans/Peas (Legumes) (1/2 cup per week)						
Starchy (1/2 cup per week)						
Other (3/4 cup per week)						
Additional Vegetable to Reach Total (1 1/2 cups per week)						
<b>Fruits</b> (1 cup per day) (5 cups per week)						
<b>Grains</b> (2 oz eq per day) (10–12 oz eq per week)						
<b>Fluid Milk</b> (1 cup per day) (5 cups per week)	Fat-free Milk or 1% (8 oz)	5 cups				

## APPENDIX 3.B

### Smart Snacks in School Nutrition Standards and a la carte items

Reimbursable meals under programs authorized by the National School Lunch Act and the Child Nutrition Act follow specific regulations. All other foods and beverages sold to students on the school campus during the school day must meet the “Smart Snacks in School” standards. The Smart Snacks in School regulations establish standards for all foods and beverages sold to students other than the reimbursable meals. The definition of a school day is midnight until 30 minutes after the dismissal school bell rings.

Entree items for sale as a la carte foods on the day they are served as part of the reimbursable meal and the day after are exempt from the Smart Snacks nutrition standards on those days. This exception serves to send a consistent nutritional message about school meals since such entrees already fit into a balanced and nutritionally sound meal and represent a healthier choice for students who do not want the whole meal.

Side items, snack foods, beverages, and any entrees not served as part of the reimbursable meal will need to comply with the Smart Snacks nutrition standards, which include calorie, fats, sugar, and sodium limits, in order to be sold to students in school.

Foods subject to Smart Snacks standards must:

- Be a whole grain-rich grain product; or
- Have as the first ingredient a fruit, a vegetable, a dairy, or a protein food; or
- Be a combination food that contains at least  $\frac{1}{4}$  cup of fruit and or vegetable.

In addition, such food items must also meet several nutrient requirements:

- Calorie limits:
  - Snack items:  $\leq 200$  calories
  - Entree items:  $\leq 350$  calories

- Sodium limits:
  - Snack items:  $\leq 200$  mg
  - Entree items:  $\leq 480$  mg
- Fat limits:
  - Total fat:  $\leq 35$  percent of calories
  - Saturated fat:  $< 10$  percent of calories
  - *Trans* fat: zero grams
- Sugar limits:
  - $\leq 35$  percent of weight from total sugars in foods.

Nutrition Standards for Beverages sold in schools.

Schools may sell:

- Plain water (with or without carbonation)
- Unflavored or flavored fat-free and 1% (low-fat) milk
- Milk alternatives permitted by NSLP/SBP
- 100% fruit or vegetable juice, with or without carbonation
- 100% fruit or vegetable juice diluted with water (with or without carbonation) and no added sweeteners.

Additional beverage standards by grade level:

- Elementary schools may sell up to 8-fluid-ounce portions of milk and juice.
- Middle schools and high schools may sell up to 12-fluid-ounce portions of milk and juice.
- There is no portion size limit for plain water.

High schools are allowed to sell additional “no calorie” and “lower calorie” beverage options:

- $\leq 20$ -fluid ounce portions of other flavored and/or carbonated beverages that contain  $< 5$  calories per 8 fluid ounces or  $\leq 10$  calories per 20 fluid ounces;
- $\leq 12$  fluid ounce portions of “lower calorie” beverages that contain  $\leq 40$  calories per 8 fluid ounces or  $\leq 60$  calories per 12 fluid ounces.

For more information on Smart Snacks, visit <https://www.fns.usda.gov/school-meals/tools-schools-focusing-smart-snacks>.

## APPENDIX 3.C

### Dietary Specifications Assessment Tool

State agencies complete the following questions and assess your program's day-to-day operations. There are four response choices: 1. Always (every day or 5 days/week), 2. Most items or most of the time (3–4 days/week), 3. Some items or some of the time (1–2 days/week), and 4. Never (0 days/week).

Contact your State agency for information about the online version of the Dietary Specifications

**To obtain an online version of the Dietary Specifications Assessment Tool, check out the FNS Partner Web or contact your State agency.**

Assessment Tool.

1. Are specifications considered when purchasing menu items and condiments to limit the following?
  - a. Saturated fat
  - b. Sodium
  - c. *Trans* fat
2. Only low-fat (1% milk fat or less, unflavored) or fat-free (unflavored or flavored) milk is used for student consumption and in menu recipes.\*
3. Low-fat, fat-free milk products are used. This includes yogurt and cottage cheese.
4. Cheese (all varieties including reduced fat) is controlled by placing items in portion cups, portion controlled packaging or the use of appropriate serving size utensils to limit portion size allowed per meal. This includes cheese offered on salad bars.
5. Are non-creditable cheese products offered as part of a reimbursable meal? (Non-creditable cheese includes: cheese sauce without a CN label or product formulation statement, cheese product, imitation cheese and powdered cheese).
6. Reduced-fat, low fat, fat-free mayonnaise, sour cream, and/or salad dressings are offered instead of full-fat varieties.
7. Broths and/or soups with low or reduced sodium are used, rather than regular broths and soups.
8. Fresh, frozen, and/or low sodium or no sodium canned vegetables are offered, rather than reduced sodium or regular canned vegetables.
9. How often are bacon, bacon bits, pepperoni, chow mein noodles, pickles, olives, packaged crackers and/or croutons available to students?
10. How often are meats such as hot dogs, luncheon meats (e.g. ham, turkey) and/or sausage offered on the service line and/or salad bar? (All varieties—including reduced and/or low sodium).
11. Canned fruits are packed in water, fruit juice, or light syrup. If only fresh fruit is offered, then select the "N/A" dropdown response.
12. Grain-based desserts such as doughnuts, pastries, cakes, and cookies are limited to 2 oz eq per week or less for LUNCH. If grain-based desserts are not offered, then select the "N/A" dropdown response.
13. How often are "grain-based dessert" type items such as doughnuts, toaster pastries, cake, muffins, and cookies offered at breakfast?
14. Other seasonings, such as herbs and spices, are substituted for salt.
15. Oil is used in recipes, rather than shortening, margarine, or butter.
16. Fat is drained from browned meats and poultry and/or fat is skimmed from broths, soups, stews, or gravies and/or skin is removed from poultry or skinless poultry is used. If browned meats and poultry are not offered, then select the "N/A" dropdown response.
17. Is a deep fat fryer used on-site to prepare school meal items?
18. Is butter or margarine added to breads and/or vegetables prior to serving?
19. Standardized recipes are followed: all

ingredients are weighed or measured with standardized weight or measuring utensils.

- 20.** Meal pattern for appropriate age/grade groups are used for menu planning, including the meal patterns and serving sizes.
- 21.** How often are extra, nonreimbursable food items (e.g. potato chips, ice cream, pudding and/or gelatin) offered on the menu? Items sold a la carte are exempt.
- 22.** Portion sizes for condiments (e.g. hot sauce, ketchup, mustard, salad dressing) are controlled by placing items in portion cups, portion controlled packaging or the use of appropriate serving size utensils to limit portion size allowed per meal.
- 23.** Students are offered butter or margarine:
  - a.** In the serving line.
  - b.** At a condiment station.
  - c.** If they ask for it.
- 24.** Students are offered salt:
  - a.** In the serving line.
  - b.** At a condiment station.
  - c.** On meal tables.
  - d.** If they ask for it.
- 25.** Larger portions and/or bonus items and/or seconds are offered (offering portion sizes that are inconsistent with the planned menu). Entrees sold a la carte are exempt.

\*The Dietary Specifications Assessment Tool does not reflect the Transitional Standards for Milk, Whole Grains and Sodium – Final Rule which allows for both unflavored and flavored nonfat and low-fat (1%) milk to be served in the NSLP/SBP.



# Daily Menu Production Record – Food-Based Menu Planning

SAMPLE

1 Name of school/site Harvey Elementary School  
 2 Grade Group K- 5  
 3 Date January 14, 2022  
 4 Menu Grilled cheese sandwich or Chicken nuggets & Rice pilaf, Broccoli, Cherry tomatoes, Celery sticks, Fruit cocktail, Orange wedges, Milk: assorted fat-free & 1%

5  Breakfast  
 Lunch  
 OVS  
 Preplated (served)

### Reimbursable meals

6 Number of student meals planned (projected): 54  
 7 Number of student meals offered (prepared): 50  
 8 Number of student meals selected (served): 48

### Nonreimbursable Meals

9 Number of meals planned (projected): 5  
 10 Number of meals offered (prepared): 5  
 11 Number of meals selected (served): 4

R = Reimbursable NR = Nonreimbursable T = Total

12 Menu/food items	14 Recipe ID/product ID	15 Portion Size	Component contributions per portion size					21 Planned (projected) Servings			22 Planned (projected) quantity of food (in purchase units)	23 Actual number servings (offered) prepared			24 Actual number servings selected (served)			25 Substitutions, leftovers, and notes		
			16 Meats/meat alternates	17 Grains	18 Fruits	19 Vegetables	20 Milk	R	NR	T		R	NR	T	R	NR	T			
			Grilled cheese sandwich	R# 32	1 ea	2 oz eq	2 oz eq WGR						24		24	48 sl WG bread 3 lbs cheese	20			20
XYZ Chicken Nuggets w/WG, 3.97 oz eq = 2 oz eq M/MA, 1 oz eq grains CN #123456	P# 4203	6 ea	2 oz eq	1 oz eq WGR					30	5	35	8.7 lbs	30	5	35	28	4	32	3 servings leftover, discarded	
Brown rice pilaf, USDA recipe <i>RTU: ready-to-use, cleaned, trimmed florets</i>	R# B22	#8 scoop		1 oz eq WGR					32	5	37	1.25 gallons	32	5	37	31	3	34	1.5 cups leftover, discarded	
Steamed broccoli florets (RTU), <u>dark green vegetable</u>	R# 15	2 oz spoodle					¼ c		50	5	55	2 lbs	50	5	55	49	4	53	0.5 cup leftover; chilled and refrigerated for use in soup tomorrow	
Cherry tomato (3 ea), <u>red/orange vegetable</u> , Celery sticks (3 ea, RTU), <u>other vegetable</u>	R# 18	¼ c					¼ c		30		30	2.5 lbs	30		30	24		24	1.5 cups cherry tomatoes & 1 cup celery leftover; bagged & refrigerated for use in soup tomorrow	
<del>Fruit cocktail in light syrup, drained, USDA Foods</del> <i>Diced peaches, drained</i>	R# 3	4 oz spoodle					½ c		35	3	38	2.25 #10 cans	35	3	38	25	3	28	Substituted peaches. 5 cups leftover; refrigerated for use in breakfast tomorrow	
Orange wedges (138 count)	R# 5	4 oz spoodle					½ c		15	3	18	5.5 lbs	25	2	27	35	2	37	No leftovers; made 10 more servings, 3 more lbs used	
Extra: Ranch dressing 1/2 oz packets	P# 1514	1 ea							54		54	54 ea	50		50	45		45	5 leftover, returned to inventory	
13 Milk by type and flavor:	Item#																			No leftovers
fat-free (unflavored):	501	1 ea							5		5	5	5		5	5		5		
fat-free (chocolate):	502	1 ea							30		30	30	28		28	28		28		
1% unflavored:	503	1 ea							10		10	10	10		10	10		10		

26 Ms. Manager 1/14/22  
 verifier signature date

## Anatomy of a Production Record

You may use any production record format you wish as long as it includes certain key items. These items are summarized and then explained in more detail below.

### BASIC INFORMATION

- 1 Name of school/site
- 2 Grade group
- 3 Date
- 4 Menu
- 5 Menu type (lunch or breakfast) and OVS or Preplated (served)

### REIMBURSABLE MEALS

- 6 Planned (projected) number of student meals; provides an estimate of planned (projected) student meals for the specified grade group
- 7 Actual number of student meals offered (prepared); provides the total number of student meals offered (prepared) for the specified grade group
- 8 Actual number of student meals selected (served); provides the total number of students meals selected (served) for the specified grade group

### NONREIMBURSABLE MEALS

- 9 Planned (projected) number of nonreimbursable meals – the number of staff and guests
- 10 Offered (prepared) number of nonreimbursable meals – the number of staff and guests
- 11 Actual number of nonreimbursable meals selected (served); provides the total number of nonreimbursable meals selected (served) for the specified school/site

### ALL MENU ITEMS LISTED

- 12 Menu/food items – all food item choices offered on the specified grade group's menu, such as main entrees, vegetable subgroups, fruit, milk, dessert, condiments, and substitutions. For each food item, include product information such as manufacturer item name and code number, USDA Foods information, or specific information to guide preparation
- 13 Planned (projected), offered (prepared), and selected (served) number of milk by type – fat-free unflavored, fat-free chocolate or other flavors, 1% low-fat unflavored

### RECIPE/PRODUCT NUMBER

- 14 Recipe ID/product ID number – standardized recipe number (USDA or your local recipe number) or product ID number

### PORTION SIZE

- 15 Portion size for the specified grade group – specific unit of measure: scoop number, measuring cup amount, each, ladle or spoodle size, etc.

### REIMBURSABLE MEAL COMPONENTS PROVIDED BY PORTION SIZE

- 16 Meats/meat alternates in ounce equivalent (oz eq)
- 17 Grains in oz eq (WG indicates whole grain-rich)
- 18 Fruits – portion offered in volume, (½ cup in sample)
- 19 Vegetables – portion offered in volume (¼ cup in sample), note that subgroup is identified in column #14
- 20 Milk - portion offered in volume (1 cup in sample)

### MEALS PLANNED (PROJECTED), OFFERED (PREPARED), SELECTED (SERVED) AND LEFTOVER

- 21 Planned (projected) number of servings to prepare – provided by menu planner using forecasting tools (reimbursable and nonreimbursable combined)
- 22 Planned (projected) quantity of food to use in purchase units – forecasted from past production, standardized recipes and *Food Buying Guide for Child Nutrition Programs* (FBG). Adjust on day-of-service, if needed
- 23 Actual number of servings offered (prepared) – provides total number of servings prepared with any changes from planned (projected) amounts noted, as needed
- 24 Actual number of servings selected (served) – provides total number of servings selected (served) for each food item on the menu; provides information for forecasting future meal preparation
- 25 Substitutions and leftovers – any substitutions for the planned menu must be recorded. Record the amount of leftovers of each item and planned use (examples: chilled and refrigerated for use in future)

### VERIFIER SIGNATURE AND DATE

- 26 Person in charge of site reviews, verifies, signs and dates the production record, and files for future reference. Your State agency may require signed production records.

### OTHER DETAILS YOU MAY NEED OR WANT TO RECORD ARE:

- Food preparation and holding temperatures
- Specific information of value for preparation, service, and future forecasting, such as weather-related school closures, field trips, etc.
- FBG details – source of calculations for purchase units required for total servings planned
- Additional required information by your State agency or school program

*The sample is one example of a production record. Use the format that best fits your program.*

# EXAMPLE

## Fruit and Vegetable Bar Planning Template

SCHOOL /SITE NAME:

MENU WEEK:

COMPONENT	WEEKLY REQUIREMENT (DAILY)	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	WEEKLY TOTAL
<b>Vegetable</b>	Grade K–5: 3¾ cups (¾) Grade 6–8: 3¾ cups (¾) Grade 9–12: 5 cups (1)						
Dark Green	½ cup (1 cup leafy greens = ½cup)						
Red / Orange	Grade K–5: ¾ cup Grade 6–8: ¾ cup Grade 9–12: 1¼ cups						
Legumes	½ cup						
Starchy	½ cup						
Other	K–5: ½ cup Grade 6–8: ½ cup Grade 9–12: ¾ cup						
<b>Fruit</b>							
	Grade K–5: 2 ½ cups (½) Grade 6–8: 2 ½ cups (½) Grade 9–12: 5 cups (1)						
<b>Other</b>							

Washington State fruit and vegetable production record (<https://www.k12.wa.us/policy-funding/child-nutrition/school-meals/national-school-lunch-program/menu-planning-and-meal-patterns-toolkit>)

## APPENDIX 4.B

# 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. <sup>1</sup>	Level Measure	Color Code <sup>2</sup>
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	

<sup>1</sup> 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.



<sup>2</sup> Use colored dots matching the brand-specific color coding of scoop sizes.

## Ladles Portion Servers



Ladle fl oz	Approx. 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
<b>Ounces (oz)</b>	<b>Grams (g)</b>
1 oz	= 28.35 g
4 oz	= 113.4 g
8 oz	= 226.8 g
16 oz	= 453.6 g
<b>Pounds (lb)</b>	<b>Grams (g)</b>
1 lb	= 453.6 g
2 lb	= 907.2 g
<b>Pounds (lb)</b>	<b>Kilograms (kg)</b>
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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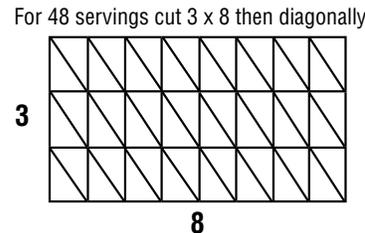
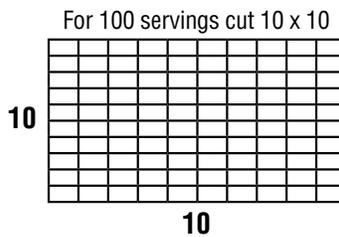
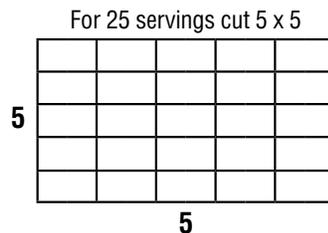
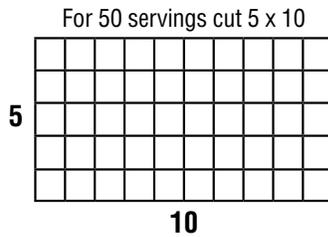
# Steamtable Pan Capacity

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

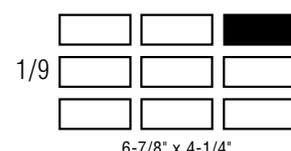
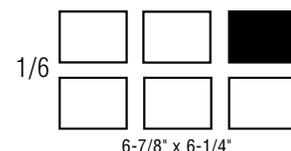
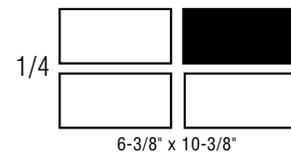
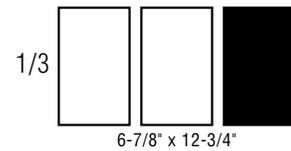
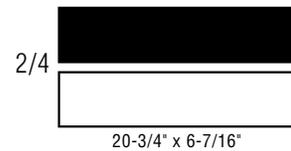
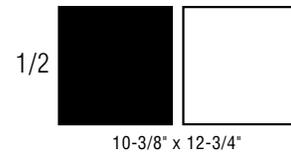
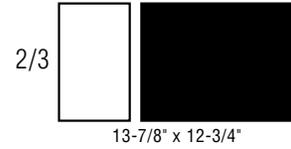
## Approximate Dimension of Serving Sizes from Different Pan Sizes

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



## Other Pan Sizes



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

## APPENDIX 4.C

### The Process Approach to Hazard Analysis and Critical Control Point (HACCP)

## Process 1: NO COOK

### Example: Fruit Salad



#### Receive

Control Measures: Known Source, Receiving Temperatures



#### Store

Control Measures: Proper Storage Temperatures,  
Prevent Cross Contamination, Store away from chemicals

#### Prepare

Control Measures: Personal Hygiene, Restrict III Employees,  
Prevent Cross Contamination



#### CCP: Cold Holding

**Critical Limit: Hold at 41 °F or below\***  
**Check and record temperatures.**

#### Serve

Control Measures: No Bare Hand Contact with Ready  
to Eat Food, Personal Hygiene, Restrict III Employees



Thermometer icon means that taking a temperature is necessary.



Clipboard icon means recording data is necessary.

\* From the 2017 FDA Food Code

## Process 2: Same Day Service

### Example: Baked Chicken



#### Receive

Control Measures: Known Source, Receiving Temperatures



#### Store

Control Measures: Proper Storage Temperatures, Prevent Cross Contamination, Store away from chemicals

#### Prepare

Control Measures: Personal Hygiene, Restrict III Employees, Prevent Cross Contamination



#### CCP: Cook

**Critical Limit: Internal temperature of 165 °F.\***  
Check and record temperatures.



#### CCP: Hot Holding

**Critical Limit: Hold at no less than 135 °F.\***  
Check and record temperatures.

#### Serve

Control Measures: No Bare Hand Contact with Ready to Eat Food, Personal Hygiene, Restrict III Employees



Thermometer icon means that taking a temperature is necessary.



Clipboard icon means recording data is necessary.

\* From the 2017 FDA Food Code

# Process 3: Complex Food Preparation

## Example: Beef and Bean Tamale Pie



### Receive

Control Measures: Known Source, Receiving Temperatures



### Store

Control Measures: Proper Storage Temperatures, Prevent Cross Contamination, Store away from chemicals

### Prepare

Control Measures: Personal Hygiene, Restrict III Employees, Prevent Cross Contamination



### CCP: Cook

**Critical Limit: Cook to 155 °F for at least 17 seconds.\***  
Check and record temperatures.



### CCP: Cool

**Critical Limit: Cool to 70 °F within 2 hours and from 70 °F to 41 °F or lower within an additional 4 hours.\***  
Check and record temperatures.



### CCP: Reheat

**Critical Limit: Heat to 165 °F for at least 15 seconds.\***  
Check and record temperatures.



### CCP: Hot Hold

**Critical Limit: Hold for hot service at 135 °F or higher.\***  
Check and record temperatures.

### Serve

Control Measures: No Bare Hand Contact with Ready to Eat Food, Personal Hygiene, Restrict III Employees



Thermometer icon means that taking a temperature is necessary.



Clipboard icon means recording data is necessary.

\* From the 2017 FDA Food Code

# APPENDIX 5.A

## Product Formulation Statement for Documenting Grains in Child Nutrition Programs

*(Crediting Standards Based on Grams of Creditable Grains (ounce equivalent))*

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative. Program operators have the option to choose the crediting method that fits their specific menu planning needs.

Product Name: \_\_\_\_\_ Code No.: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Serving Size: \_\_\_\_\_  
(raw dough weight may be used to calculate creditable grains)

**I. Does the product meet the whole grain-rich criteria?** Yes \_\_\_\_\_ No \_\_\_\_\_

**II. Does the product contain non-creditable grains?** Yes \_\_\_\_\_ No \_\_\_\_\_ **How many grams?** \_\_\_\_\_  
*(Products with more than 0.24 ounce equivalent (oz eq) or 3.99 grams (g) for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.)*

**III. Use Exhibit A: Grain Requirements for Child Nutrition Programs in the Food Buying Guide for Child Nutrition Programs (FBG) to determine if the product fits into Groups A-G (baked goods), Group H (cereal grains) or Group I (RTE breakfast cereals).** *(Different methodologies are applied to calculate the grains contribution based on creditable grains. Groups A-G use the standard of 16g creditable grains per oz eq; Groups H and I use the standard of 28g creditable grains per oz eq or volume.)*

Indicate which Exhibit A Group (A-I) the product belongs to: \_\_\_\_\_

DESCRIPTION OF CREDITABLE GRAIN INGREDIENT*	GRAMS OF CREDITABLE GRAINS INGREDIENT PER PORTION <sup>1</sup> A	GRAM STANDARD OF CREDITABLE GRAINS PER OZ EQ (16g or 28g) <sup>2</sup> B	CREDITABLE AMOUNT A ÷ B
<b>Total</b>			
<b>Total Creditable Amount<sup>3</sup></b>			

\* Creditable grains vary by Program. See the FBG for specific Program requirements.

<sup>1</sup> (Serving size) X (% of creditable grains in formula); serving sizes other than grams must be converted to grams.

<sup>2</sup> Standard grams of creditable grains from the corresponding Group in Exhibit A.

<sup>3</sup> Total Creditable Amount must be rounded **down** to the nearest quarter (0.25) oz eq. Do **not** round up.

Total weight (per portion) of product as purchased \_\_\_\_\_

Total contribution of product (per portion) \_\_\_\_\_ oz eq

I certify that the above information is true and correct and that a \_\_\_\_\_ ounce portion of this product (ready for serving) provides \_\_\_\_\_ oz eq grains. I further certify that non-creditable grains **are not** above 0.24 oz eq per portion. Products with more than 0.24 oz eq or 3.99g for Groups A-G or 6.99g for Groups H and I of non-creditable grains may not credit toward the grains requirement for school meals.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone Number

## Product Formulation Statement for Documenting Grains in Child Nutrition Programs

*(Crediting Standards Based on Exhibit A Weights per Ounce Equivalent)*

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative. Program operators have the option to choose the crediting method that fits their specific menu planning needs.

Product Name: \_\_\_\_\_ Code No.: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Serving Size: \_\_\_\_\_

**I. Does the product meet the whole grain-rich criteria?** Yes \_\_\_\_\_ No \_\_\_\_\_

**II. Does the product contain non-creditable grains?** Yes \_\_\_\_\_ No \_\_\_\_\_ **How many grams?** \_\_\_\_\_

*(Products with more than 0.24 ounce equivalent (oz eq) or 3.99 grams (g) for Groups A-G and 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.)*

**III. Use Exhibit A: Grain Requirements for Child Nutrition Programs in the Food Buying Guide for Child Nutrition Programs (FBG) to determine if the product fits into Groups A-G (baked goods), Group H (cereal grains) or Group I (RTE breakfast cereals).** *(Different methodologies are applied to calculate the grains contribution based on creditable grains. Groups A-G use the standard of 16g creditable grain per oz eq; Groups H and I use the standard of 28g creditable grains per oz eq or volume.)*

Indicate which Exhibit A Group (A-I) the product belongs: \_\_\_\_\_

DESCRIPTION OF PRODUCT PER EXHIBIT A	PORTION SIZE OF PRODUCT AS PURCHASED	WEIGHT OF ONE OZ EQ AS LISTED IN EXHIBIT A	CREDITABLE AMOUNT
	A	B	A ÷ B
<b>Total Creditable Amount<sup>1</sup></b>			

<sup>1</sup> Total Creditable Amount must be rounded **down** to the nearest quarter (0.25) oz eq. Do **not** round up.

Total weight (per portion) of product as purchased \_\_\_\_\_

Total contribution of product (per portion) \_\_\_\_\_ oz eq

I further certify that the above information is true and correct and that a \_\_\_\_\_ ounce portion of this product (ready for serving) provides \_\_\_\_\_ oz eq grains. I further certify that non-creditable grains **are not** above 0.24 oz eq per portion. Products with more than 0.24 oz eq or 3.99g for Groups A-G or 6.99g for Groups H and I of non-creditable grains do not credit toward the grains requirement for school meals.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone Number

### Product Formulation Statement for Documenting Meats/Meat Alternates (M/MA) in Child Nutrition Programs

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative.

Product Name: \_\_\_\_\_ Code No.: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Serving Size: \_\_\_\_\_

**I. Meats**

Fill out the chart below to determine the creditable amount of Meats.

DESCRIPTION OF CREDITABLE MEAT INGREDIENT PER FOOD BUYING GUIDE (FBG)	OUNCES PER RAW PORTION OF CREDITABLE MEAT INGREDIENT A	MULTIPLY	FBG YIELD <sup>1</sup> B	CREDITABLE AMOUNT A x B
		x		
		x		
		x		
<b>C. Total Creditable Meats Amount<sup>5</sup></b>				

<sup>1</sup> FBG yield = Additional Information column.

**II. Meat Alternates**

Fill out the chart below to determine the creditable amount of Meat Alternates.

DESCRIPTION OF CREDITABLE MEAT ALTERNATE INGREDIENT PER FOOD BUYING GUIDE (FBG)	OUNCES PER RAW PORTION OF CREDITABLE MEAT ALTERNATE INGREDIENT D	MULTIPLY	FBG YIELD <sup>2</sup> E	DIVIDE	PURCHASE UNIT IN OUNCES F	CREDITABLE AMOUNT D x E ÷ F
		x		÷		
		x		÷		
		x		÷		
<b>G. Total Creditable Meat Alternates Amount<sup>5</sup></b>						

<sup>2</sup> FBG yield = Servings per Purchase Unit column.

**III. Alternate Protein Products (APP)**

Fill out the chart below to determine the creditable amount of APP. Documentation must be provided as described in Attachments A and B for each APP used.

DESCRIPTION OF APP, MANUFACTURER'S NAME, AND CODE NUMBER	OUNCES DRY PER APP PORTION H	MULTIPLY	% OF PROTEIN AS-IS <sup>3</sup> I	DIVIDE <sup>4</sup>	CREDITABLE AMOUNT APP H x I ÷ 18
		x		÷ 18	
		x		÷ 18	
		x		÷ 18	
<b>J. Total Creditable APP Amount<sup>5</sup></b>					
<b>K. TOTAL CREDITABLE AMOUNT (C+G+J rounded down to nearest 0.25 oz)<sup>5</sup></b>					

<sup>3</sup> Attached documentation provides % of Protein As-Is.

<sup>4</sup> 18 is the percent of protein when fully hydrated.

<sup>5</sup> Total Creditable Amount must be rounded **down** to the nearest 0.25 oz (example: 1.49 rounds down to 1.25 oz equivalent meat/meat alternate). If crediting M/MA and APP, round down after adding the Total Creditable for Meats, Meat Alternates, and APP in boxes C, G, and J.

Total weight (per portion) of product as purchased \_\_\_\_\_

Total creditable amount of product (per portion). (Reminder: Total creditable amount (per portion) cannot exceed the total weight (per portion).) \_\_\_\_\_

I certify that the above information is true and correct and that a \_\_\_\_\_ ounce serving of the above product (ready for serving) contains \_\_\_\_\_ ounces of equivalent meat/meat alternate when prepared according to directions.

I further certify that any APP used in the product conforms to the Food and Nutrition Service Regulations (7 CFR Parts 210, 220, 225, 226, Appendix A) as demonstrated by the attached supplier documentation.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone Number

### Attachment A

#### Requirements for Documenting Alternate Protein Products (APP)

Products formulated using an APP as an ingredient should include APP documentation with the Product Formulation Statement (PFS) to demonstrate how the APP meets the Child Nutrition Program (CNP) Regulations. The APP documentation must be on company letterhead of the manufacturer providing the APP ingredient and include the following:

- a) Providing a statement that the APP meets the requirements found in Appendix A of 7 CFR 210, 220, 225, and 226.
- b) Showing that the product has been processed so that some portion of the non-protein constituents has been removed.
- c) Providing the Protein Digestibility Corrected Amino Acid Score (PDCAAS). The PDCAAS is required to be greater than 80% of casein and indicating how the PDCAAS was determined.
- d) Showing that the protein level is at least 18% by weight when fully hydrated or formulated.
- e) Providing the protein level of an APP on an “as-is” basis for the as-purchased product. Protein is often provided on a moisture free basis (mfb) which is not the information FNS requires.

# EXAMPLE

## Attachment B

### Sample supporting documentation for Alternate Protein Products

#### SOY COMPANY X Soy Protein Concentrate Product Y

Documentation for Company X Product(s) Used as Alternate Protein Products (APP) for Child Nutrition Programs

- a) Company X certifies that Product Y meets all requirements for APP intended for use in foods manufactured for Child Nutrition Programs as described in Appendix A of 7 CFR 210, 220, 225, and 226.
- b) Company X certifies that Product Y has been processed so that some portion of the non-protein constituents have been removed by fractionating. This product is produced from soybeans by removing the majority of the soybean oil and some of the other non-protein constituents.
- c) The Protein Digestibility Corrected Amino Acid Score (PDCAAS) for Product Y is 0.99. It was calculated by multiplying the lowest uncorrected amino acid score by true protein digestibility as described in the Protein Quality Evaluation Report from the Joint Expert Consultation of the Food and Agriculture Organization/World Health Organization of the United Nations, presented December 4-8, 1989, in Rome, Italy. The PDCAAS is required to be greater than 0.8 (80% of casein).
- d) The protein level of Product Y is at least 18% by weight when fully hydrated at a ratio of 2.43 parts water to one part product.
- e) The protein level of Product Y is certified to be at least 61.8% on an “as-is” basis for the as-purchased product. *(Note: Protein is often provided on a moisture free basis (mfb) which is not the information FNS requires.)*

All of the above information is required for APP and must be presented for approval.

**Note:** *It is also helpful to have the ingredient statement for product Y. For example, if the product is uncolored and unflavored the ingredient statement might be “soy protein concentrate” or if the product is colored and textured the ingredient statement might be “textured vegetable protein (soy flour, caramel color).”*

### Product Formulation Statement for Documenting Vegetables and Fruits in School Meal Programs

Program operators should include a copy of the label from the purchased product package in addition to the following information on letterhead signed by an official company representative.

Product Name: \_\_\_\_\_ Code No.: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Serving Size: \_\_\_\_\_

**I. Vegetables Component**

Fill out the chart below to determine the creditable amount of vegetables.

DESCRIPTION OF CREDITABLE INGREDIENT PER FOOD BUYING GUIDE (FBG)	VEGETABLE SUBGROUP	OUNCES PER RAW PORTION OF CREDITABLE INGREDIENT	MULTIPLY	FBG YIELD <sup>1</sup>	DIVIDE	PURCHASE UNIT IN OUNCES	CREDITABLE AMOUNT <sup>2</sup> (QUARTER CUPS)	
		A		B		C	A x B ÷ C	
			x		÷			
			x		÷			
			x		÷			
<b>Total Creditable Vegetables Amount:</b>								
<sup>1</sup> FBG yield = either Servings per Purchase Unit Column or Additional Information Column, as applicable. <sup>2</sup> FBG calculations for vegetables are in quarter cups. See next page for Quarter Cup to Cup Conversions.  <ul style="list-style-type: none"> <li>Vegetables and vegetable purees credit on volume served. Tomato paste and puree credit as a calculated volume based on the yields in the FBG.</li> <li>At least 1/8 cup of recognizable vegetable is required to contribute toward a specific vegetable subgroup.</li> <li>Pasta made from vegetable flour(s) may credit as a vegetable even if the pasta is not served with another recognizable vegetable.</li> <li>The other vegetable subgroup may be met with any additional amounts from the dark green, red/orange, and beans/peas (legumes) vegetable subgroups.</li> <li>Program operators may offer any vegetable subgroup to meet the total weekly requirement for the additional vegetable subgroup.</li> <li>Raw leafy green vegetables credit as half the volume served in school meals (example: 1 cup raw spinach credits as 1/2 cup dark green vegetable).</li> <li>Legumes may credit toward the vegetables component or the meat alternates component, but not as both in the same meal. The Program operator will decide how to incorporate legumes into the school meal. However, a manufacturer should provide documentation to show how legumes contribute toward the vegetables component and the meat alternates component.</li> <li>The PFS for meats/meat alternates may be used to document how legumes contribute toward the meat alternates component.</li> </ul>							<b>Total Cups Beans/Peas (Legumes)</b>	
							<b>Total Cups Dark Green</b>	
							<b>Total Cups Red/Orange</b>	
							<b>Total Cups Starchy</b>	
							<b>Total Cups Other</b>	

I certify the above information is true and correct and that \_\_\_\_\_ ounce serving of the above product contains

\_\_\_\_\_ cup(s) of \_\_\_\_\_ vegetables.  
(vegetable subgroup)

**II. Fruits Component**

Fill out the chart below to determine the creditable amount of fruits.

DESCRIPTION OF CREDITABLE INGREDIENT PER FOOD BUYING GUIDE (FBG)	OUNCES PER RAW PORTION OF CREDITABLE INGREDIENT	MULTIPLY	FBG YIELD <sup>1</sup>	DIVIDE	PURCHASE UNIT IN OUNCES	CREDITABLE AMOUNT <sup>2</sup> (QUARTER CUPS)
	A		B		C	A x B ÷ C
		x		÷		
		x		÷		
		x		÷		
<b>Total Creditable Fruits Amount:</b>						

<sup>1</sup>FBG yield = either Servings per Purchase Unit Column or Additional Information Column, as applicable.

<sup>2</sup>FBG calculations for fruits are in quarter cups. See below for Quarter Cup to Cup Conversions.

- Fruits and fruit purees credit on volume served.
- At least 1/8 cup of recognizable fruits is required to contribute toward the fruits component.
- Dried fruits credit double the volume served in school meals (example: 1/2 cup raisins credits as 1 cup fruit).

I certify the above information is true and correct and that \_\_\_\_\_ ounce serving of the above product contains \_\_\_\_\_ cup(s) of fruit.

**Quarter Cup to Cup Conversions\***

- 0.5 Quarter Cups = 1/8 Cup vegetable/fruit
- 1.0 Quarter Cups = 1/4 Cup vegetable/fruit
- 1.5 Quarter Cups = 3/8 Cup vegetable/fruit
- 2.0 Quarter Cups = 1/2 Cup vegetable/fruit
- 2.5 Quarter Cups = 5/8 Cup vegetable/fruit
- 3.0 Quarter Cups = 3/4 Cup vegetable/fruit
- 3.5 Quarter Cups = 7/8 Cup vegetable/fruit
- 4.0 Quarter Cups = 1 Cup vegetable/fruit

\*The result of 0.9999 equals 1/8 cup but a result of 1.0 equals 1/4 cup

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone Number

## EXAMPLE

## APPENDIX 6.A

## SAMPLE FOOD ALLERGY MANAGEMENT AND PREVENTION PLAN CHECKLIST

Use this checklist to determine if your school or ECE program has appropriate plans in place to promote the health and well-being of children with food allergies. For each priority, check the box to the left if you have plans and practices in place. Develop plans to address the priorities you did not check.

You can also use the checklist to evaluate your response to food allergy emergencies. Ongoing evaluation and improvement can help you improve your plans and actions.

Review the full descriptions of the five priorities (pages 29–40) to make sure that your plans and practices are complete and that your plans for improvement will meet the needs of children, their families, administrators, and staff.

CHECK IF YOU HAVE PLANS OR PROCEDURES	PRIORITIES FOR A FOOD ALLERGY MANAGEMENT AND PREVENTION PLAN
<b>1. Does your school or ECE program ensure the daily management of food allergies for individual children by:</b>	
<input type="checkbox"/>	Developing and using specific procedures to identify children with food allergies?
<input type="checkbox"/>	Developing a plan for managing and reducing risks of food allergic reactions in individual children through an Emergency Care Plan (Food Allergy Action Plan)?
<input type="checkbox"/>	Helping students manage their own food allergies? (Does not apply to ECE programs.)
<b>2. Has your school or ECE program prepared for food allergy emergencies by:</b>	
<input type="checkbox"/>	Setting up communication systems that are easy to use in emergencies?
<input type="checkbox"/>	Making sure staff can get to epinephrine auto-injectors quickly and easily?
<input type="checkbox"/>	Making sure that epinephrine is used when needed and that someone immediately contacts emergency medical services?
<input type="checkbox"/>	Identifying the role of each staff member in a food allergy emergency?
<input type="checkbox"/>	Preparing for food allergy reactions in children without a prior history of food allergies?
<input type="checkbox"/>	Documenting the response to a food allergy emergency?
<b>3. Does your school or ECE program train staff how to manage food allergies and respond to allergy reactions by:</b>	
<input type="checkbox"/>	Providing general training on food allergies for all staff?
<input type="checkbox"/>	Providing indepth training for staff who have frequent contact with children with food allergies?
<input type="checkbox"/>	Providing specialized training for staff who are responsible for managing the health of children with food allergies on a daily basis?
<b>4. Does your school or ECE program educate children and family members about food allergies by:</b>	
<input type="checkbox"/>	Teaching all children about food allergies?
<input type="checkbox"/>	Teaching all parents and families about food allergies?
<b>5. Does your school or ECE program create and maintain a healthy and safe educational environment by:</b>	
<input type="checkbox"/>	Creating an environment that is as safe as possible from exposure to food allergens?
<input type="checkbox"/>	Developing food-handling policies and procedures to prevent food allergens from unintentionally contacting another food?
<input type="checkbox"/>	Making outside groups aware of food allergy policies and rules when they use school or ECE program facilities before or after operating hours?
<input type="checkbox"/>	Creating a positive psychosocial climate that reduces bullying and social isolation and promotes acceptance and understanding of children with food allergies?

Source: Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs, Center for Disease Control and Prevention

## APPENDIX 7.A



## Evaluation Briefs

Source: <https://www.cdc.gov/healthyyouth/evaluation/pdf/brief3b.pdf>

### Writing SMART Objectives

No. 3b | updated August 2018

This brief is about writing SMART objectives. This brief includes an overview of objectives, how to write SMART objectives, a SMART objectives checklist, and examples of SMART objectives.

#### Overview of Objectives

For DASH funded programs, program planning includes developing five-year program goals (a broad statement of program purpose that describes the expected long-term effects of a program), strategies (the means or broad approach by which a program will achieve its goals), and annual workplan objectives (statements that describe program results to be achieved and how they will be achieved).

Objectives are more immediate than goals; objectives represent annual mileposts that your program needs to achieve in order to accomplish its goals by the end of the five-year funding period.

Each year, your workplan objectives should be based on the strategies you have selected to reach your program goals. Because strategies are implemented through objectives and program activities, multiple objectives are generally needed to address a single strategy. Objectives are the basis for monitoring implementation of your strategies and progress toward achieving your program goals. Objectives also help set targets for accountability and are a source for program evaluation questions.

#### Writing SMART Objectives

To use an objective to monitor your progress, you need to write it as a SMART objective. A SMART objective is:

1. **Specific:**
  - Objectives should provide the “who” and “what” of program activities.
  - Use only one action verb since objectives with more than one verb imply that more than one activity or behavior is being measured.
  - Avoid verbs that may have vague meanings to describe intended outcomes (e.g., “understand” or “know”) since it may prove difficult to measure them. Instead, use verbs that document action (e.g., “At the end of the session, the students will list three concerns...”)
  - Remember, the greater the specificity, the greater the measurability.
2. **Measurable:**
  - The focus is on “how much” change is expected. Objectives should quantify the amount of change expected. It is impossible to determine whether objectives have been met unless they can be measured.
  - The objective provides a reference point from which a change in the target population can clearly be measured.
3. **Achievable:**
  - Objectives should be attainable within a given time frame and with available program resources.
4. **Realistic:**
  - Objectives are most useful when they accurately address the scope of the problem and programmatic steps that can be implemented within a specific time frame.
  - Objectives that do not directly relate to the program goal will not help toward achieving the goal.
5. **Time-phased:**
  - Objectives should provide a time frame indicating when the objective will be measured or a time by which the objective will be met.
  - Including a time frame in the objectives helps in planning and evaluating the program.



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**Objectives Checklist**

Criteria to assess objectives	YES	NO
1. Is the objective <b>SMART</b> ? <ul style="list-style-type: none"> <li>• <b>Specific:</b> Who? (target population and persons doing the activity) and What? (action/activity)</li> <li>• <b>Measurable:</b> How much change is expected</li> <li>• <b>Achievable:</b> Can be realistically accomplished given current resources and constraints</li> <li>• <b>Realistic:</b> Addresses the scope of the health program and proposes reasonable programmatic steps</li> <li>• <b>Time-phased:</b> Provides a timeline indicating when the objective will be met</li> </ul>		
2. Does it relate to a single result?		
3. Is it clearly written?		

**SMART Objectives Examples**

**Non-SMART objective 1:** Teachers will be trained on the selected scientifically based health education curriculum.

This objective is not SMART because it is not specific, measurable, or time-phased. It can be made SMART by specifically indicating who is responsible for training the teachers, how many will be trained, who they are, and by when the trainings will be conducted.

**SMART objective 1:** By year two of the project, LEA staff will have trained 75% of health education teachers in the school district on the selected scientifically based health education curriculum.

**Non-SMART objective 2:** 90% of youth participants will participate in lessons on assertive communication skills.

This objective is not SMART because it is not specific or time-phased. It can be made SMART by specifically indicating who will do the activity, by when, and who will participate in lessons on assertive communication skills.

**SMART objective 2:** By the end of the school year, district health educators will have delivered lessons on assertive communication skills to 90% of youth participants in the middle school HIV- prevention curriculum.

For further information or assistance, contact the Evaluation Research Team at [ert@cdc.gov](mailto:ert@cdc.gov). You can also contact us via our website: <http://www.cdc.gov/healthyyouth/evaluation/index.htm>

## APPENDIX 7.B

### SCHOOL PROMOTION IDEAS AND TOOLS

#### Planning a Promotion?

##### THINK ABOUT THE “BIG” PICTURE!

Successful promotions come in all shapes and sizes. Use your imagination and the attached Promotion Planning Worksheet to get started. Remember to think about the “big” picture—what students are interested in and what else is happening at school. Here are items to address when planning a promotion:

##### Select an objective and target group.

Decide what you want your promotion to accomplish and whom you want to reach.

##### Determine a timeframe.

Will you do a promotion for a day, a week, or an entire month? How long will the planning process take? Do you need school board or administrator approval?

##### Review your budget.

How much will the promotion cost? Does it fit into your budget? How far in advance do you need to order materials or supplies?

##### Check the school calendar.

You might want to plan promotions to coincide with or support other campus events, such as sports activities, dances, or plays. Or perhaps you want your promotion to be the week’s big splash. National School Lunch Week, National School Breakfast Week, National Nutrition Month, National Salad Month, National Fruit and Vegetable Month, seasonal changes, and holidays can offer opportunities for fun themes. Find a listing at <https://www.fns.usda.gov/team-nutrition>.

##### Select a title.

The title needs to get your customers’ attention! “Jump on the Whole Grain Train,” “MyPlate Power,” and “A World of New Tastes” are a few examples.

##### Plan for publicity.

You need to plan in advance how you are going to get the word out. Publicity is critical to a successful promotion, but you don’t need to do all the work. Local publicity resources can help, if you initiate the contact and develop working relationships. Can you partner with student reporters or a high school marketing class?

##### Work with student and parent advisory groups.

You may already be working with an advisory group, but if not, consider setting one up for your special promotion and other activities, too.

##### Have displays at special events and meetings.

Announce your promotion by having a display table and brochures available during activities such as health fairs, back-to-school night, kindergarten orientation, and parent-teacher association meetings.

### SAMPLE PROMOTION PLANNING WORKSHEET

<b>1. Objective:</b>			
Activity:			
Food Items:			
<b>2. Target Group: (Check one or more)</b>			
<input type="checkbox"/> Students	<input type="checkbox"/> Parents	<input type="checkbox"/> Teachers	<input type="checkbox"/> Administrators
<b>3. Date(s):</b>			
Coincides with campus events?		Holidays?	
<b>4. Theme and Title:</b>			
<b>5. Publicity:</b>			
(a) Print:			
(b) Media:			
(c) Other:			
<b>6. Dress/Decorations/Merchandising Tools:</b>			
<b>7. Incentives/Prizes:</b>			
<b>8. Who Is Responsible?</b>			

**9. Costs/Expenses:****10. Evaluation:** Complete after your promotion by circling the appropriate numbers below.

	Poor	Satisfactory	Good	Excellent
How well did this promotion accomplish our objective(s)?	1	2	3	4
If a new food item was introduced, was it well received?	1	2	3	4
How did students respond?	1	2	3	4
How did staff respond?	1	2	3	4

**Other Notes**

### **WANT TO GET STUDENTS' ATTENTION? TRY THESE PROMOTIONAL TOOLS**

Many merchandising options exist that get students' attention. Use them in combination for best results!

#### **Displays:**

A variety of display equipment can work well in a school setting. Kiosks, photo boxes, and free-standing poster boards or easels are just a few. Use them to promote new menu items, advertise theme days, and spread the word that it is fun to eat at school.

#### **Bulletin Boards:**

Do your students have time to read when they are waiting in the serving line? Bulletin boards—especially if they're fun to look at—can spark students' interest and extend an exciting invitation to learn. Designate one bulletin board for monthly promotions and one for general nutrition. You might be surprised at how interested students are!

#### **Costumes or Special Accessories:**

When you are doing a promotion, have your staff dress for success! Make an event fashionable and fun with employees wearing buttons, aprons, hats, T-shirts, or costumes. You can make your own costumes or borrow or rent them.

#### **Posters and Banners:**

Perfect for a wall or even the wide side of a salad bar, banners can help add color and excitement to your cafeteria setting. Plus, they are inexpensive to do! Check out the free posters available through Team Nutrition (<https://www.fns.usda.gov/team-nutrition>).

#### **Signs:**

When trying to expand your customer base, place signs outside the cafeteria and in other areas around the school campus.

#### **Social Media:**

Be a part of the newest trends and catch students' attention via social media outlets, like Facebook, Twitter, and Instagram. Promoting the month's menus or special events taking place can create anticipation and highlight the new tactics you have adopted to take your meal participation to the next level.

#### **Music and Props:**

Music can help set the stage for theme days, but it is great for regular days, too. Play music in the cafeteria while students are eating. Use music on the intercom system to get students' attention during morning announcements. Place theme props near lunchroom entrances, in serving lines, and in other visible locations.

## **WANT TO GET STUDENTS' ATTENTION? USE PRIZES AND SURPRISES**

Students love prizes and surprises! Use them to increase participation. Reward young children for selecting new food items, and in general to make eating at school fun. Here are some ideas:

### **“Reach Into the Surprise Can”:**

Make school lunch a special occasion with a “Surprise Can.” Each student who buys a reimbursable school lunch (instead of a la carte items) gets to reach in and take a card. The lucky winner’s card would announce a small prize.

### **Water Bottles, Duffel Bags, Frisbees®, T-Shirts:**

Promote healthy exercise and eating habits by giving larger prizes. Look for sources of promotional materials, such as local sports stores and athletic associations.

### **Lucky Sticker Day:**

Young children love stickers. When students try new foods, reward them with a sticker. Use stickers to add excitement to the lunch line — put stickers on some of the trays and give small prizes to the lucky students who get them. Check out Team Nutrition (<https://www.fns.usda.gov/team-nutrition>) for stickers and other resources.

### **Pencils for Learning:**

Plan a word game that features foods for a healthy diet and give out pencils to students who play.

### **Poster Contest:**

Challenge elementary students to have a poster contest. The winning class gets a private party in the cafeteria with tablecloths and decorations.

### **“Wake Up to Nutrition”:**

Add excitement by telling students an alarm clock or timer will go off sometime during the meal service. Whoever is at the cash register when the buzzer sounds will get a prize.

### **Magnets To Take Home:**

At the beginning of the school year, give refrigerator magnets to students for posting school menus at home. Magnets featuring your logo help students and parents remember your program throughout the school year. If you don’t have a logo, consider developing one!

### **Special Visitor:**

Invite a local hero or a celebrity, such as a local firefighter or professional athlete, to dine with your students or have a costumed mascot visit the cafeteria. A staff member or parent volunteer can wear the costume and give a pep talk to get students involved in and excited about what’s happening in their meal programs.

### **“Take a Taste”:**

Invite students to take a taste. For example, give out food samples at the entrance to the cafeteria or at the beginning of the serving line. (For added fun, have a costumed mascot offer samples to students waiting in line.) Have classroom or lunchroom tasting parties and let the students sample new items in advance. Then, use that feedback!

For additional ideas and resources, visit USDA Team Nutrition (<https://www.fns.usda.gov/team-nutrition>) and the Institute of Child Nutrition (<https://theicn.org/>).

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