



Food-Based Menu Planning

CH.2

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

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.

Nutrient	Per cup (8 fl oz)	Nutrient	Per cup (8 fl oz)
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.

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

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
September October November	December January February	March April May	June July August
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 $\frac{1}{2}$ 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	$\frac{1}{4}$ 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), 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
Lettuce, fresh 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:

$$31.3 \div 2 = 15.65 \text{ } \frac{1}{2}\text{-cup servings per lb}$$

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:

$$80 \text{ servings} \div 15.65 \text{ } \frac{1}{2}\text{-cup servings per pound} = 5.11 \text{ lb untrimmed lettuce}$$

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): $5 \text{ lb} \times 16 \text{ oz per lb} = 80 \text{ ounces}$

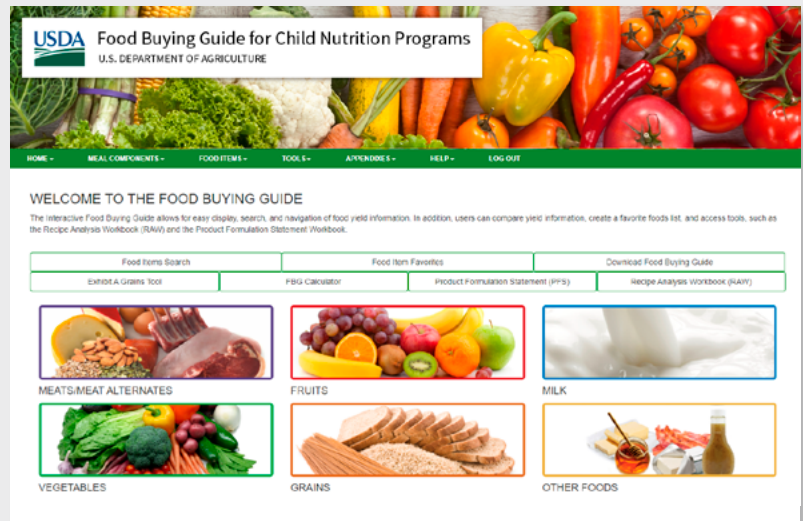
The reason you need to purchase about $5\frac{1}{4}$ pounds of untrimmed romaine is because the core and other parts are trimmed and discarded during preparation.

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.: 14005

Manufacturer: 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 ¹	GRAM STANDARD OF CREDITABLE GRAINS PER OZ EQ (16g or 28g) ²	CREDITABLE AMOUNT
	A	B	A ÷ B
Whole wheat flour (30%)	15	16	0.9375
Enriched flour (22%)	11	16	0.6875
		Total	1.625
		Total Creditable Amount³	1.50

* 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 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	WEIGHT OF ONE OZ EQ AS LISTED IN EXHIBIT A	CREDITABLE AMOUNT
	A	B	A ÷ B
Pancakes	50 grams	34 grams	1.47
Total Creditable Amount¹			1.25

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 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

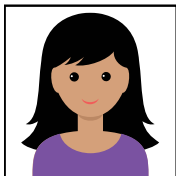


Hi everyone!



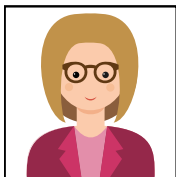
Lin

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!



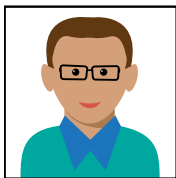
Elena

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

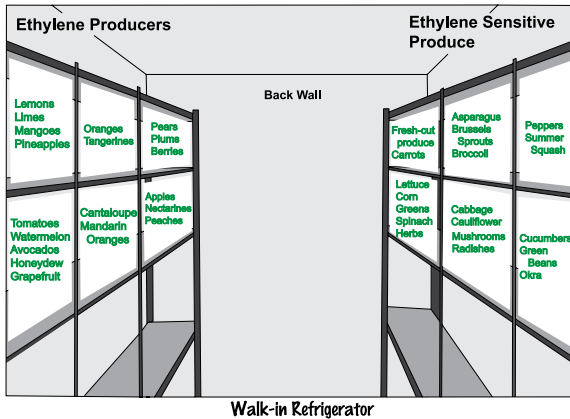
*California available year around.

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.

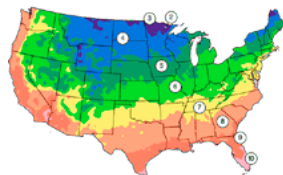
U.S. Grades

- 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
K–5	1	5	½	2½	¾	3 ¾	1	8	1	8
6–8	1	5	½	2½	¾	3 ¾	1	8	1	9
K–8 Option	1	5	½	2½	¾	3 ¾	1	8	1	9
9–12	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.

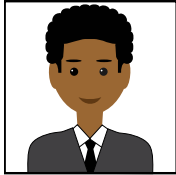
Your success with OVS depends on trained staff. The Institute of Child Nutrition (ICN) offers several OVS resources:

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

Menu Chat



Hi colleagues!

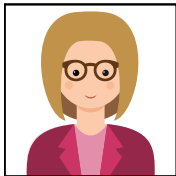


Tyler

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!

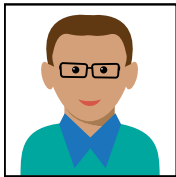
Breakfast Burrito

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%)



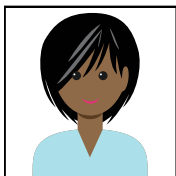
Megan

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

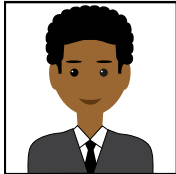
We do OVS at breakfast. To meet the four item requirement of OVS, I would credit the 1 oz eq egg – the meat alternate – toward the weekly grains and as an item for reimbursement. That means we assemble the breakfast from the line, so students have the option of declining the egg – part of following OVS. 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
Fat-free milk	1 cup	0 grams
1% (Low-fat) milk	1 cup	1.5 grams
Fruits*	1 cup	0 grams
Vegetables*	1 cup	0 grams
Grains*	1 oz eq	0 grams
M/MA		
Beef, ground, 85–89% lean, cooked	1 oz eq	2 grams
Cheese, Cheddar	1 oz eq	6 grams
Cheese, part skim Mozzarella	1 oz eq	3 grams
Chicken thigh w/skin, baked	1 oz eq	1 gram
Egg	1 oz eq (½ large)	1 gram
Peanut butter	1 oz eq (2 Tbsp)	3 grams
Pollock fish, baked	1 oz eq	0 grams
Tofu	1 oz eq (¼ cup)	0.5 grams
Yogurt, fat-free	1 oz eq (½ cup)	0 grams
Yogurt, low-fat	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). 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.
evscschools.com/](https://district.evscschools.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).

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