Module 4—Meal Planning

Target Audience

- Child nutrition director/ executive director
- Nutritionist or registered dietitian (if applicable)
- Food production staff
- Menu planner

Estimated Time Required 60 minutes

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Learning Objectives

- Identify the grade group requirements and explain how they overlap at lunch and breakfast
- Compare and contrast the weekly and daily minimums for food components for the grade groups for lunch and breakfast
- Identify the four requirements in the dietary specification area
- Define the purpose and use of the various menu planning tools, including the Food Buying Guide (FBG), child nutrition (CN) labels, product formulation statements (PFS), standardized recipes, and menu production records (MPR)

Note: See Module 9 for information on offer verses serve (OVS).
Introduction

The school meal nutrition standards reflect the most current dietary science as outlined in the Dietary Guidelines for Americans. The meal pattern and meal requirements for the National School Lunch Program (NSLP) and the School Breakfast Program (SBP) help sponsors:

- Increase the students’ availability to fruits, vegetables, whole grains, and fat-free and low-fat fluid milk
- Reduce the levels of sodium and saturated fat
- Meet all the nutritional needs of students within their calorie range requirements
- Serve more nutritious school meals that improve the dietary habits of school students and protect their lifelong health

Note: Meals for students with recognized medical disabilities that restrict their diet are based on a written medical statement from a recognized medical authority, which may affect the meal pattern and dietary specifications. Optional accommodations for students with special dietary needs (without recognized medical disabilities but with a written medical statement from a recognized medical authority), must be consistent with the meal pattern and dietary specifications. See Module 9 for more information on accommodating special dietary needs.


Menu Planning Approach Changes

All sponsors are required to follow the designated meal pattern provided for the lunch and the breakfast meal. This single menu planning approach is based on food components and not nutrients. The menu planning approach is referred to as food-based menu planning.

Grade Groups

The table below shows the grade groups with corresponding ages:

<table>
<thead>
<tr>
<th>Grades kindergarten to fifth (K–5)</th>
<th>Ages five to ten (5–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades sixth to eighth (6–8)</td>
<td>Ages eleven to thirteen (11–13)</td>
</tr>
<tr>
<td>Grades ninth to twelfth (9–12)</td>
<td>Ages fourteen to eighteen (14–18)</td>
</tr>
</tbody>
</table>

The classification of grade groups K–5, 6–8, and 9–12 is based on nutritional needs of children and the ages that typically correspond with these grade levels (ages 5–10 for grades K–5, ages 11–13 for grades 6–8, and ages 14–18 for grades 9–12). Schools should therefore plan menus based on the grade levels of students. If a different configuration exists in a school, the sponsor may use the overlap that exists in the meal pattern. For example, you can serve the

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same lunch meal pattern for K–5 and 6–8 (K–8 school) because the food quantities are comparable. Sponsors must still meet the calorie, saturated fat, and sodium levels for both grade groups within the overlapping minimums and maximums as shown in the chart. Sponsors may not customize the grade groups…it is not allowed.

Below is a chart that provides the overlap requirements for a K–8 school for a five-day week:

<table>
<thead>
<tr>
<th>Lunch Meal Pattern Overlap for K–8 School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
</tr>
<tr>
<td>Saturated Fat</td>
</tr>
<tr>
<td>Sodium</td>
</tr>
<tr>
<td>Grains</td>
</tr>
<tr>
<td>Meats/Meat Alternates (M/MA)</td>
</tr>
</tbody>
</table>

If a school has both K–5 and/or grades 6–8 in combination with grades 9–12, there is also some overlap of the grade groups. The M/MA and grains could be planned for 10 servings each per week. The fruits and vegetables must be adjusted by grade level and the calorie minimums and maximums must be met for each grade level.

Prekindergarten sites, serving the SBP meal pattern, will meet the minimum requirement for the current Child and Adult Care Food Program (CACFP) breakfast meal pattern. Prekindergarten sites, serving the K–5 NSLP meal pattern for lunch, are considered in compliance by the U.S. Department of Agriculture (USDA). The NSLP meal pattern will meet the CACFP meal pattern over the course of a week.

**Note:** The information in this segment only relates to those who offer meals to children from birth through Pre-K and in At-Risk Afterschool Programs. The USDA released SP 42-2016, CACFP 14-2016: Early Implementation of the Updated Child and Adult Care Food Program Meal Pattern Requirements and the National School Lunch and School Breakfast Programs’ Infant and Preschool Meal Patterns, a policy memo on early implementation options; however, until the CDE issues an MB with specific early implementation policies, program operators must continue to follow the existing CACFP or K–5 meal patterns. The new meal patterns include a greater variety of vegetables and fruit, more whole grains, and less added sugar and saturated fat. The changes made to the meal patterns are based on the Dietary Guidelines for Americans, scientific recommendations from the National Academy of Medicine, and stakeholder input. To support program operators with the transition to the new CACFP meal pattern standards, the CDE will provide training opportunities and technical assistance.
For breakfast, there is also overlapping of grade groups. This allows the school food authority (SFA) to use the same menu for all grades (e.g. K–12 or K–8 or 6–12 school or district).

When utilizing the overlap between grade groups for the sodium requirement, you must follow the most restrictive grade group. Therefore, for the K–12 menu, you must follow the sodium requirements for the K–5 grade group.

Below is a chart that provides the overlap requirements for SBP for a five-day week.

<table>
<thead>
<tr>
<th>2014–15 Meal Pattern and Meal Pattern Overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Calories</td>
</tr>
<tr>
<td>Fruit</td>
</tr>
<tr>
<td>Grains (oz. eq.)</td>
</tr>
<tr>
<td>Milk</td>
</tr>
<tr>
<td>Sodium—Target 1</td>
</tr>
<tr>
<td>Saturated Fat</td>
</tr>
</tbody>
</table>

More detail on the breakfast meal pattern is included later in the training.

**Note:** To assist with determining if your menu is meeting the dietary specifications (i.e. calories, saturated fat, and sodium); you can use the Simplified Nutrient Assessment portion of the USDA Certification Worksheets located on the USDA Web page at [http://www.fns.usda.gov/school-meals/certification-compliance](http://www.fns.usda.gov/school-meals/certification-compliance). Alternately, you can use information (i.e. calories saturated fat, and sodium) obtained from Super Tracker located on the USDA Web page at [https://www.supertracker.usda.gov/foodapedia.aspx](https://www.supertracker.usda.gov/foodapedia.aspx). Another option is to use the Weekly Nutrient Calculator developed by the Wisconsin Department of Public Instruction Web page at [http://www.calpronet-sj.org/modules16_17/Wisconsin_Nutrient_Calculator.xls](http://www.calpronet-sj.org/modules16_17/Wisconsin_Nutrient_Calculator.xls)
Second Servings

If a school elects to offer second servings of any part of the reimbursable meal, these foods do not count toward the daily and weekly component contributions, but they do count toward the weekly dietary specifications. If second helpings or meals are sold a la carte, they do not contribute toward the components or dietary specifications for reimbursable meals.

Leftovers

Small quantities of leftover food served on another day do not count towards the meal component requirements, including the vegetable subgroups. The CDE has discretion to determine if leftovers are of a reasonable amount and occur regularly. All leftovers are included in the weighted nutrient analysis even if not offered to students. Schools are not required to do a nutrient analysis, but if they do, they would include all food offered during the week. If the quantities of leftovers were quite small, the effect would be minimal. If the school consistently has leftovers to add to each day’s menus, schools need to consider participation trends in an effort to decrease leftovers to provide one reimbursable lunch for each child every day.

Meal Identification—Signage

Sponsors must identify for the students, at or near the beginning of the serving line, what constitutes a reimbursable breakfast and lunch. The purpose is to:

- Help students select a reimbursable meal
- Help students avoid unintentional charges for a la carte items
- Reinforce nutrition education

Sponsors have the discretion as to how to identify the food components/items that compose a reimbursable meal to the students, but they must be sure that the method implemented does not overtly identify students participating in the meal programs.

Open this link to view different samples of signage used for breakfast and for lunch
http://www.calpronet-sj.org/modules16_17/Sample_Meal_Signage.pptx

Note: Information on OVS for breakfast and the OVS requirements for lunch are provided in Module 9 of this training.

2. Meal Pattern Requirements for Lunch

There are requirements for each meal component that comprises a reimbursable meal. This next section will outline the lunch meal pattern requirements by meal component. There are five food components for lunch—fruit, vegetables, grains, M/MA, and milk.
To view the complete lunch meal pattern, go to the CDE Menu Planning for Lunch Web page at http://www.cde.ca.gov/ls/nu/he/newfbmplunch.asp.

For those agencies that operate a shorter or longer week, see the USDA guidance on Short and Long Week Calculations Web document at http://www.fns.usda.gov/sites/default/files/SP10-2012r2a.pdf.

**Fruits**

Fruit is required daily at lunch. The minimum five-day weekly requirement for fruit is 2.5 cups (c) for grades K–5 and 6–8, and a minimum of five cups per week for grades ninth–twelfth. Grades K–5 and grades 6–8 have minimum daily requirements of ½ cup (as shown in parentheses). Grades 9–12 must be offered a minimum of one cup of fruit per day.

<table>
<thead>
<tr>
<th>Lunch Meal Pattern for Fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K–5</td>
</tr>
<tr>
<td>Amount per week (minimum per day)</td>
</tr>
<tr>
<td>2½ cups (½ c)</td>
</tr>
</tbody>
</table>

**Note:**
- ¼ cup of dried fruit counts as ½ c of fruit
- ⅛ cup of fruit is the minimum creditable amount

No more than half of the fruit offerings, over the course of a week, may be in the form of juice and all juice must be full-strength 100 percent fruit juice for breakfast and lunch. To calculate the percentage of juice offered, you would need the amount of total fruit offered in the week (the amount the student is allowed to select) and, of the total fruit offered, how much is in the form of juice.

Example:

Multiple fruit choices available each day: ½ cup peaches, ½ cup applesauce, ½ cup oranges, and ½ cup grape juice offered

- Student can select 1 cup of fruit (2 out of 4 choices = 1 cup)
- Daily fruit offering = 1 cup (weekly fruit offering is 5 days x 1 cup = 5 cups)
- Daily juice offering = ½ cup (weekly juice offering is 5 days x ½ c = 2.5 cups)

(The weekly juice offering is no more than half of the total fruit offering.)
Juice concentrates can be used only when reconstituted with water to full-strength 100 percent fruit juice. Juice cannot be credited when used as an ingredient in another food or beverage product with the exception of smoothies.

Frozen 100 percent fruit juice (and frozen fruit) with or without added sugar is allowed. Frozen 100 percent juice meal contributions are based on the fluid volume prior to freezing. Request this information from the manufacturer.

**Vegetables**

For lunch, the meal pattern requires daily servings of vegetables—¾ cups for K–5 and 6–8 and one cup for 9–12. There are also weekly minimums for the vegetable subgroups. This means that over the course of the week, the required amount of each subgroup must be met, but that on any given day there are no specific subgroup requirements.

<table>
<thead>
<tr>
<th>Lunch Meal Pattern for Vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K–5</td>
</tr>
<tr>
<td>Amount per five-day week (minimum per day)</td>
</tr>
<tr>
<td>Vegetables</td>
</tr>
<tr>
<td>Dark green</td>
</tr>
<tr>
<td>Red/orange</td>
</tr>
<tr>
<td>Beans and peas (legumes)</td>
</tr>
<tr>
<td>Starchy</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Additional vegetable to reach total</td>
</tr>
</tbody>
</table>

**Note:** ⅛ cup of vegetables is the minimum creditable amount, including crediting to the vegetable subgroups. Uncooked, leafy greens credit as half of the volume as served. Therefore, 1 cup of romaine lettuce is creditable as ½ cup of vegetables.

The vegetable juice requirement is the same as for fruit juice. Juice may be no more than ½ of the vegetable offerings over the week. Calculate this the same as the fruit/fruit juice offerings. Vegetable juices may count toward the subgroups if all of the vegetables in the juice are from the subgroup. If there is a mixture of vegetable subgroups in the juice, the juice counts toward the additional vegetables.
The revised vegetables and fruits section of the FBG lists the subgroup for each of the vegetables included. Additional data on M/MA, vegetables and fruits was recently released. The revised sections of the FBG including the latest release are on the USDA School Meals Programs Web page at http://www.fns.usda.gov/tn/food-buying-guide-school-meal-programs.

Vegetable Subgroups

1. DARK GREEN VEGETABLES

   REQUIREMENT: ½ cup per week

   • Arugula
   • Bok choy
   • Broccoli and broccoli rabe
   • Butterhead lettuce (Boston, Bibb), raw
   • Chard
   • Cilantro
   • Collard greens
   • Dark green leafy lettuce
   • Kale
   • Mesclun
   • Mixed dark leafy (includes romaine, chicory, escarole and endive)
   • Mustard greens
   • Parsley
   • Red leaf lettuces
   • Romaine lettuce
   • Seaweed (laver)
   • Spinach
   • Turnip greens
   • Watercress

2. RED & ORANGE VEGETABLES

   REQUIREMENT: ¾ cup for grades K–5 and 6–8, 1¼ cups for grades 9–12 per week

   • Acorn squash
   • Butternut squash
   • Carrots and carrot juice
   • Hubbard squash
   • Orange and red peppers
   • Pumpkin
   • Sweet potatoes and yellow yams
   • Tomatoes and tomato juice

3. BEANS AND PEAS

   REQUIREMENT: ½ cup per week

   • Black beans
   • Black-eyed peas (mature, dry)
   • Edamame (soybeans) (immature)
   • Garbanzo beans (chickpeas)
   • Kidney beans
   • Lentils
   • Lima beans (mature) including fava and mung
   • Navy beans
   • Pinto beans
   • Soy beans
   • Split peas
   • White beans
4. STARCHY VEGETABLES

**REQUIREMENT:** ½ cup per week

- Cassava
- Corn
- French fries (potatoes, French fried, all types)
- Fresh cowpeas, field peas, or black-eyed peas (not dry)
- Green bananas
- Green lima beans
- Green peas
- Home fries and hashed browns (potatoes, hashed brown, frozen, plain, prepared)
- Jicama
- Lima beans, immature
- Parsnips
- Plantains
- Taro
- Water chestnuts
- White potatoes
- White yams

5. OTHER VEGETABLES

**REQUIREMENT:** ½ cup for grades K–5 and 6–8, ¾ cup for grades 9–12 per week

- Artichokes
- Asparagus
- Avocado
- Bamboo shoots
- Bean sprouts
- Beets
- Brussels sprouts
- Cabbage (green, red, Napa/Celery)
- Cactus
- Cauliflower
- Celery
- Chives
- Cucumbers and pickles
- Eggplant
- Garlic
- Green beans
- Green peppers
- Iceberg (head) lettuce
- Jalapenos
- Mung bean sprouts
- Mushrooms
- Okra
- Olives
- Onions
- Purple bell peppers
- radishes
- Seaweed (wakame)
- Snow peas
- Summer squash (i.e., zucchini, yellow, spaghetti)
- Tomatillos
- Turnips
- Yellow peppers
- Plus any vegetables from list 1, 2, and 3

6. ADDITIONAL VEGETABLES

**REQUIREMENT:** 1 cup for grades K–5 and 6–8, 1½ cups for grades 9–12 per week

- Mixtures where the quantities of each vegetable are not known
- Vegetable juice from mixed subgroups
- Any vegetable from lists 1–5
Grains

Daily and Weekly Requirements

There is a daily and a weekly minimum grain requirement. The chart below identifies the daily and five-day weekly requirement for each grade group. Every meal choice must contain the daily minimum for the grade group or 1 ounce equivalent (oz. eq.) for K–8 and 2 oz. eq. for 9–12.

| Lunch Meal Pattern for Grains (oz. eq.) |
|-------------------------------|-----------------|-----------------|-----------------|
| Grades K–5                     | Grades 6–8      | Grades K–8      | Grades 9–12     |
| Weekly Minimum Per Five-day Week (minimum per day) |
| 8–9 oz. eq. (1 oz. eq.)       | 8–10 oz. eq. (1 oz. eq.) | 8–9 oz. eq. (1 oz. eq.) | 10–12 oz. eq. (2 oz. eq.) |

Note: The USDA is not enforcing the weekly maximums for grain and M/MAs. The maximums are used as a guide for menu planning purposes only. The daily and weekly minimums for grains and M/MA and the weekly calorie ranges still apply. The maximum for dessert grains remains at 2 oz. eq. per week and nonwhole grain-rich (WGR) grain desserts count toward the maximum but not toward the grains component.

The news release regarding the weekly maximums is on the USDA Web page at http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2014/01/0001.xml

To calculate the weekly minimum requirement, add the daily minimums together to get the total weekly minimum grain served. The chart provides an example of a grade 9–12 weekly menu with three entrée offerings each day. The minimum daily grain offering is determined and then the daily minimums are added together to get the weekly minimum.

In the example, is the minimum daily requirement for grade 9-12 being met? No, the shaker salad with roll only provides 1 oz. eq. grain.

Now look at the weekly requirement. Add the daily minimums together to get the total weekly minimum grain served. In the example provided below, the weekly minimum is 9 oz. eq. grains. Is the minimum weekly requirement for grade 9-12 being met? No, short the required 10–12 oz. eq. per week. To solve the shortage, increase the roll with the shaker salad to provide 2 oz. eq. gran. You will utilize this same process to determine if meeting the weekly minimum for the M/MA component.
GRAINS POLICY MEMO

The USDA Policy Memorandum SP 30-2012 provides the criteria used by SFAs to determine which grains meet the regulatory standards and to determine equivalent minimum serving sizes or oz. eq. for determining the contribution to the meal pattern. The policy memo is located on the USDA Policy Web document at http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2012/SP30-2012os.pdf.

All WGR grains equal to or greater than 0.25 oz. eq. count towards the weekly grains, including battered and/or breaded products. Grain ingredients that are not creditable, such as oat fiber, corn fiber, wheat starch, cornstarch, bran, and germ and modified food starch must be present at a level of less than 2 percent of the product formula, or less than 0.25 oz. eq. for the product to be creditable as a grain for lunch or breakfast. Grains offered that are less than 0.25 oz. eq. or are not WGR or contain 2 percent or more noncreditable grain ingredients do not contribute to the required grains meal component. However, they do contribute to the weekly dietary specifications.

The oz. eq. for grains is determined by using either the weights or volumes listed in Exhibit A of the USDA Policy Memo SP 30-2012 or the SFA may obtain the PFS from a manufacturer certifying the grams of creditable grains per portion. SFAs can choose to use Exhibit A instead of calculating the actual amount of grains in a product since Exhibit A provides the equivalent minimum weights to provide one oz. eq. of grains.
**Note:** Of the weekly total for lunch, up to two oz. eq. grains per week may be in the form of a grain-based dessert. See Exhibit A with the grain group listings for information on which grain items are considered desserts (i.e. cookies, cobbler, graham crackers, etc.).

Before purchasing new products containing whole grains, look carefully at the whole product. When soliciting bids from manufacturers, specify that the products must be 50 percent or more whole grains and the remaining grains enriched. SFAs need a CN label or a PFS and an ingredient label to ensure that the product meets the WGR criteria.

**Whole Grain-rich Requirement**

All grains offered to meet the grains component meal requirements in the NSLP and SBP must be WGR products. This means that the product must contain at least 50 percent whole grains and the remaining grains in the product must be enriched.

State agencies may grant a temporary exemption for School Year 2016–17 from the WGR requirement to SFAs that demonstrate significant challenges in procuring and serving WGR products, if at least half of the grains offered weekly are WGR. See the CDE Management Bulletin (MB) on WGR Exemption located on the CDE Web page at [http://www.cde.ca.gov/ls/nu/sn/mbsnp142016.asp](http://www.cde.ca.gov/ls/nu/sn/mbsnp142016.asp).

Foods that qualify as WGR are foods that contain 100 percent whole grain or contain a blend of whole grain meal and/or flour and enriched meal and/or flour of which at least 50 percent is whole grain. The remaining grain, if any, must be enriched.

Current labeling regulations and practices make it difficult to determine if a grain serving is WGR. The USDA has developed a Whole Grain Resource to guide sponsors in meeting the WGR requirement. The document is located on the USDA Whole Grain Resource Web document at [http://www.fns.usda.gov/sites/default/files/WholeGrainResource.pdf](http://www.fns.usda.gov/sites/default/files/WholeGrainResource.pdf). Use the following criterion from the USDA Whole Grain Resource Guide to determine if a grain is WGR.

- **Element #1**
  - The food item must meet the oz. eq. requirements for the grains component as defined in the grains section of the FBG for school meal programs.

And

- **Element #2**
  - The food item must meet **at least one** of the following:
    1. Whole grains per serving must be ≥ 8 grams
      - Serving means the minimum serving size specified for grains in the guidance
    2. Product includes the Food and Drug Administration (FDA) approved whole grain health claim on its packaging—“Diets rich in whole grain foods and...
other plant foods and low in total fat, saturated fat and cholesterol may reduce the risk of heart disease and some cancers.”

3. Product ingredient listing, lists whole grain first as noted below:
   a. In no mixed dishes, e.g. breads and cereals, whole grains must be the primary ingredient by weight (a whole grain is the first ingredient in the list)
   b. In mixed dishes, e.g. pizza and corn dogs, whole grains must be the primary grain ingredient by weight (be the first grain ingredient listed)
   c. For your recipes at school, the total weight of the whole grain ingredients exceeds the total weight of the no whole grain ingredients.

The easiest way to determine if a product is WGR is to look at the ingredient listing (item number 3 from above). If the first grain is a whole grain then the product is considered WGR. The USDA Whole Grain Resource Guide includes exercises on identifying products that meet the WGR criteria and calculation examples.

Noncreditable Grains

Grains that are creditable in school meal programs are whole meal, whole flour, enriched meal, and enriched flour. Grain ingredients that are not whole or enriched are considered noncreditable. Some noncreditable ingredients found in grain products include oat fiber, corn fiber, wheat starch, cornstarch, bran, germ, and modified food starch (including potato, legume, and other vegetable flours). If purchased grain products include these noncreditable ingredients, they must be present at a level of less than 2 percent of the product formula (or less than 0.25 oz. eq.) for the grain product to be creditable at lunch or breakfast.

If noncreditable ingredients are present at levels of 2 percent (or 0.25 oz. eq.) or more per portion, the entire grain portion of the product is considered noncreditable. However, if the product were a combination food, the other food components would remain creditable. For example, if a breaded chicken product contains 0.5 oz. eq. of noncreditable grains, the breading is not creditable but the chicken may still credit toward the M/MA component. The noncreditable grain does count toward the weekly dietary specifications. If a CN label product contains a noncreditable grain portion, there must be a disclaimer directly under the CN label (more detail later in this module).

This policy intends to support the WGR requirement while giving operators, in exceptional circumstances, the flexibility to continue offering combination food items that are not yet available with creditable grain ingredients. The Food and Nutrition Service (FNS) expects that as more and better WGR products become available, the offering of noncreditable grain ingredients will decrease over time.
The Institute of Child Nutrition (ICN), Whole Grains in Child Nutrition Programs (CNP) resource provides training materials for recognizing whole grains, whole grain products, writing specifications, and marketing whole grains in schools located on the ICN Web document at http://www.nfsmi.org/documentlibraryfiles/PDF/20110714035845.pdf.

Open the link below for a chart that lists a variety of whole grains, common grains that are not considered whole grain, and a list of noncreditable grains (this list is not exclusive). http://www.calpronet-sj.org/modules16_17/Whole_Grains_Chart.pdf.

**Meat/Meat Alternate**

The chart below identifies the daily and weekly requirements for each grade group:

<table>
<thead>
<tr>
<th>Lunch Meal Pattern for M/MA (oz. eq.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K–5</td>
</tr>
<tr>
<td>Weekly Minimum per five-day week (minimum per day)</td>
</tr>
<tr>
<td>8–10 oz. eq. (1 oz.)</td>
</tr>
</tbody>
</table>

Students in grades 9–12 must be offered at least 2 oz. eq. daily in every lunch meal and younger students must be offered at least 1 oz. eq. daily in every lunch meal offered. Meal planners have flexibility to determine how to reach the required weekly minimums.

The USDA encourages schools to offer a variety of protein foods such as lean or extra lean meats, seafood, and poultry; beans and peas; fat-free and low-fat milk products such as cheese and yogurt; eggs, and unsalted nuts and seeds, to meet the M/MA requirement.

**Reminder:** The USDA is not enforcing the weekly maximums for grain and M/MA. The maximums are used as a guide for menu planning purposes only. The daily and weekly minimums for grains and M/MA and the weekly calorie ranges still apply.

The USDA news release regarding the weekly maximums is located on USDA Web site at http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2014/01/0001.xml

Tofu and soy yogurt are creditable as meat alternates. This allows schools to diversify the sources of protein available to students and better meet the dietary needs of vegetarians and culturally diverse groups in schools.


See the USDA Policy Memo SP 01-2016 on Procuring Local Meat, Poultry, Game, and Eggs for CNPs for rules and regulations to ensure all products served in CNP meals and otherwise, are safe, wholesome, and correctly labeled and packaged, is located on the USDA Policy Memo Web document at http://www.fns.usda.gov/sites/default/files/cn/SP01_CACFP%2001_SFSP01-2016os.pdf.

**Milk**

Requirements for the milk component are as follows:

- At least two types of milk must be offered at lunch and at breakfast
- Only fat-free and low-fat milk (1 percent) may be served for both breakfast and lunch
- Low-fat milk must be unflavored
- Fat-free milk may be flavored or unflavored
- Low-fat, fat-free, and lactose-free milk may be served as a type of milk
- Two percent and whole milk are not allowed
- The restrictions on fat levels and flavored milk applies to 3–4 year olds, but not 0–2 year olds
- Water cannot be offered or promoted as an alternative selection to fluid milk

**Breakfast and Lunch Meal Pattern for Fluid Milk**

<table>
<thead>
<tr>
<th>Grades K–5</th>
<th>Grades 6–8</th>
<th>Grades 9–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount per five-day week (minimum per day)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 cups (1 c)</td>
<td>5 cups (1 c)</td>
<td>5 cups (1 c)</td>
</tr>
</tbody>
</table>

This institution is an equal opportunity provider.
Residential child care institutions (RCCI) may meet the milk variety requirement over the week rather than daily if there are potential, legitimate safety concerns (example, 1 percent milk for four days of the week and fat-free for three days of the week).

For more information, see the MB USDA-SNP-13-2016, Nutrition Requirements for Fluid Milk located on the CDE MB Web page at http://www.cde.ca.gov/ls/nu/sn/mbsnp132016.asp.

3. Meal Pattern Requirements—Breakfast

This next section will outline the breakfast meal pattern requirements. There are three food components required for breakfast: Fruits, Grains, and Milk.

To view the complete breakfast meal pattern, visit the CDE Menu Planning for Breakfast Web page at http://www.cde.ca.gov/ls/nu/he/nfbmpbreakfast.asp.

Fruits

The minimum five-day weekly requirement for fruit is 5 cups for all grade levels at breakfast. The minimum daily requirement to be offered (shown in parentheses) is 1 cup per day for all grade levels. Fruits and vegetables may be offered interchangeably, but there are substitution requirements when offering starchy vegetables. There is no daily or weekly maximum on the fruits that may be offered. No more than half of the fruit offering over the course of the week can be in the form of juice. This is the same requirement as in the lunch meal.

<table>
<thead>
<tr>
<th>SY 2014–15 Breakfast Meal Pattern for Fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K–5</td>
</tr>
<tr>
<td>Amount per five-day week (minimum per day)</td>
</tr>
<tr>
<td>5 cups (1 c)</td>
</tr>
</tbody>
</table>

There are limitations or special requirements when serving starchy vegetables. You have a choice to count the starchy vegetable, such as hash browns, as a substitute for fruit or as an extra food.

Starchy vegetables offered as substitutes for fruits:

- Count towards the daily and weekly fruit component
- Count as a food item in OVS
- Count in the weekly dietary specifications for calories, saturated fat, and sodium
• The first two cups per week of any such substitution must be from dark green, red/orange, beans/peas or the “other” vegetable subgroups

Starchy vegetables offered as an extra food:

• Do Not count toward the fruit component for the day or week
• Do Not count as a food item for OVS
• Do count in the weekly dietary specifications for calories, saturated fat, and sodium

Note: ¼ cup of fruits or vegetables is the minimum creditable amount. Uncooked, leafy greens will credit as half of volume as served. Therefore, one cup of fresh spinach is creditable as ½ a cup of vegetables. ¼ cup of dried fruit counts as twice the volume, or ½ cup of fruit.

Grains

Daily and Weekly Requirements and Whole Grain-rich Requirements

All grains offered, to meet the grain food component requirements, must be WGR. The criteria for determining if a grain item is WGR are the same as the lunch meal pattern. Refer to page 11 of this module for further details. There are minimum serving requirements for the week and a minimum daily requirement for each grade group. Every breakfast meal choice must contain the daily minimum, which is 1 oz. eq. for all grade groups. In order to meet the minimum grains for the week, you must serve more than the minimum grains per day on some days of the week. You may add additional grains, offer a larger grain serving, or offer an M/MA substituting as a grain.

Reminder: The USDA is not enforcing the weekly maximums for grain and M/MAs. The maximums are used as a guide for menu planning purposes only. The daily and weekly minimums for grains and M/MAs and the weekly calorie ranges still apply.

The USDA news release regarding the weekly maximums is located at http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2014/01/0001.xml

<table>
<thead>
<tr>
<th>Breakfast Meal Pattern for Grains (oz. eq.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K–12</td>
</tr>
<tr>
<td>Weekly Minimum per five-day week (minimum per day)</td>
</tr>
<tr>
<td>9–10 (1)</td>
</tr>
</tbody>
</table>
Fortification Requirements
Schools must ensure that a ready-to-eat (RTE) cereal is fortified to meet program requirements. Check the label. It should list: Vitamin C (sodium ascorbate, ascorbic acid), niacinamide, vitamin B6 (pyridoxine hydrochloride) reduced iron, zinc oxide, folic acid, vitamin B2 (riboflavin), vitamin B1 (thiamin hydrochloride), vitamin A palmitate, vitamin D, vitamin B12.

Note: While sugar in grain items is allowed at breakfast, keep in mind that the goal is to offer healthy options. There is no grain-based dessert restriction at breakfast as there is for lunch. However, some grain-based desserts may only be served at lunch, i.e., brownies and cookies. Check the updated Exhibit A chart located in the USDA Whole Grains Resource Guide for the footnote indicating these restricted items.

Optional Meat/Meat Alternates
There is no requirement for M/MA for the breakfast meal pattern. M/MAs are counted as grains to meet the daily and weekly requirements. A school may offer an M/MA after the minimum daily grain requirement (1 oz. eq. for all grade groups) is offered. An M/MA can be offered either as a substitute for grains or as an extra food. Below we will point out the difference when it is offered as an extra food.

M/MAs offered as a substitute for grains:
- Count towards the weekly grain requirement
- Count as a food item in OVS
- Count in the weekly dietary specifications for calories, saturated fat, and sodium

M/MAs offered as an extra food:
- Do not count towards the weekly grain requirement
- Do not count as a food item for OVS
- Do count in the weekly dietary specifications for calories, saturated fat, and sodium

Let us take a bean burrito (1 oz. eq. grains and 1 oz. eq. M/MA) as an example.
- If the M/MA in the burrito is offered as a substitute for grains, it will count as 1 oz. eq. grain and 1 oz. eq. M/MA substitute to equal 2 oz. eq. grains and two food items.
- If the M/MA in the burrito is offered as an extra food, it will count as 1 oz. eq. grain and the 1 oz. eq. M/MA is counted as an extra serving. Therefore, this food item will count as 1 oz. eq. grain and one food item.

The option to allow the M/MA to count as an “extra” food was important in menu planning when there were maximums for grains. Now you may want to count the M/MA as a grain substitute because you can exceed the weekly maximum oz. eq. grains if the weekly dietary specifications are not exceeded. You will be able to count the M/MA as a food item toward OVS.
Remember that all items offered must be counted toward the calories, saturated fat, and sodium.

**Milk**

The milk requirements are the same for breakfast as for lunch. SFAs that do not wish to offer flavored milk for breakfast may offer a variety of fat levels or lactose-free milk.

- At least two types of milk must be served at lunch and at breakfast
- Only fat-free and low-fat milk (1 percent) may be served for both breakfast and lunch
- Low-fat milk must be unflavored
- Fat-free milk may be flavored or unflavored
- Low-fat, fat-free, and lactose-free milk may be served as a type of milk
- Two percent and whole milk are not allowed
- The restrictions on fat levels and flavored milk applies to 3–4 year olds, but not 0–2 year olds

<table>
<thead>
<tr>
<th>Breakfast and Lunch Meal Pattern for Fluid Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K–5</td>
</tr>
<tr>
<td>Amount per five-day week (minimum per day)</td>
</tr>
<tr>
<td>5 cups (1 c)</td>
</tr>
</tbody>
</table>

**4. Dietary Specifications**

There are four specific dietary specifications in the regulations—calories, saturated fat, sodium, and trans-fat.

**Calories**

Regulations provide a minimum and maximum calorie range for each grade group to be met on average over the school week. The intent is not to reduce the amount of food but to avoid excessive calories. The meal patterns provide more fruits, vegetables, and whole grains than previous school meals and should result in nutrient-dense meals. The required maximum calorie levels will drive menu planners to select nutrient dense foods and ingredients to prepare meals, and avoid products that are high in fats and added sugars.
The chart below lists the calorie ranges for each grade group by meal.

<table>
<thead>
<tr>
<th>GRADES</th>
<th>LUNCH Calories (kcs)</th>
<th>BREAKFAST Calories (kcs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K–5</td>
<td>550–650</td>
<td>350–500</td>
</tr>
<tr>
<td>6–8</td>
<td>600–700</td>
<td>400–550</td>
</tr>
<tr>
<td>9–12</td>
<td>750–850</td>
<td>450–600</td>
</tr>
</tbody>
</table>

**Saturated Fat**

Less than 10 percent of total calories from saturated fat is to be met on average over the school week. This is for both breakfast and lunch. Saturated fats are fats from animal sources such as those found in meats, dairy products, and eggs. Offering fat-free and low-fat milk will help reduce the saturated fat content of the meals.

**Sodium**

The Target 1 limit on sodium is to be met on average over the school week. Limiting sodium intake helps to lower the risk of chronic diseases. Prior to implementation of the second and third sodium targets, USDA is required to review available data to determine if the targets are necessary and feasible or if changes are needed to the target levels.

Sponsors should be looking at the sodium levels in purchased products and recipes, and explore ways to decrease sodium. There is concern that meals will not appeal to students if a large change in the sodium level takes place suddenly. Reducing the sodium level in steps will give students the opportunity to adjust their tastes.
Where do you start to reduce the sodium in your school menu?

- First, analyze your menu if you use menu analysis software.
- You can identify those food items that are high, moderate, and low in sodium. Based on this information, you can substitute menu items or modify the frequency that you offer those items.
- You can also look at your recipes to determine the ingredients that add substantial amount of sodium to your recipe and revamp them using herbs, spices, and spice blends.


Another resource, for information and for best practices, is the USDA What’s Shaking? Web page at [http://healthymeals.nal.usda.gov/whatsshaking](http://healthymeals.nal.usda.gov/whatsshaking).
Trans Fat

Nutrition labels or manufacturer specifications for food products or ingredients used to prepare meals must be available for state personnel during the administrative review (AR) and must indicate zero grams of trans fat per serving (less than or equal to 0.5 grams per serving). Keep the documentation for three years plus the current year as with MPRs.

Naturally, occurring trans fat found in products such as beef and lamb is excluded from the requirement. If a meat product nutrition facts label or specification lists trans fat of greater than 0.5 grams per serving and might contain naturally occurring trans fat and other added fats, the SFA should request documentation from the manufacturer that the added fats do not contain trans fat.

Smoothies

The USDA released Policy Memo AP10-2014(v.3) Smoothies Offered in CNPs. This Policy Memo is found on the USDA Policy Web page at [http://www.fns.usda.gov/smoothies-offered-child-nutrition-programs](http://www.fns.usda.gov/smoothies-offered-child-nutrition-programs). The USDA allows crediting of vegetables and yogurt (as an M/MA) in smoothies prepared by program operators for breakfast, lunch, snacks, and supper. FNS permits the crediting of vegetables contained in smoothies from any vegetable subgroup in the following forms: fresh, frozen, or canned vegetables, 100 percent vegetable juice, and 100 percent vegetable and fruit juice blends. Pureed vegetables and fruits, when served in a smoothie, credit as juice, and as such are subject to the limitations regarding juice service (i.e. not more than 50 percent of the weekly fruit or vegetable offerings in school). Vegetables from the dry beans and peas subgroup may credit toward the vegetable meal pattern requirement as juice when served in a smoothie. Please refer to the policy memo for more information.

Activities

Breakfast Menu Activity

Review the menu listed on the Breakfast Planning Template. Determine if the menu meets the breakfast meal pattern – for the day and for the week. Identify problems for the breakfast menu. View the following links for access to the instruction page, sample menu, and answer key.

[http://www.calpronet-sj.org/modules16_17/Breakfast_Menu_Activity_Instructions](http://www.calpronet-sj.org/modules16_17/Breakfast_Menu_Activity_Instructions)
[http://www.calpronet-sj.org/modules16_17/Breakfast_Menu_Activity](http://www.calpronet-sj.org/modules16_17/Breakfast_Menu_Activity)
[http://www.calpronet-sj.org/modules16_17/Breakfast_Menu_Activity_Answer_Key](http://www.calpronet-sj.org/modules16_17/Breakfast_Menu_Activity_Answer_Key)

Lunch Menu Activity

Review the menu listed on the Lunch Planning Template. Determine if the menu meets the lunch meal pattern – for the day and for the week. Identify problems for the lunch menu. View the following links for access to the instruction page, sample menu, and answer key

[http://www.calpronet-sj.org/modules16_17/Lunch_Menu_Activity_Instructions](http://www.calpronet-sj.org/modules16_17/Lunch_Menu_Activity_Instructions)
5. Menu Planning Tools

The following is a list of standard menu planning tools to assist in the developing, assessing, monitoring, and serving of reimbursable meals:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBG</td>
<td>Determine quantities of food to purchase and prepare</td>
</tr>
<tr>
<td>Nutrition Facts Label</td>
<td>Determine serving size, weight, calories, trans fat, sodium, and ingredient listing</td>
</tr>
<tr>
<td>PFSs</td>
<td>Determine contribution to meal pattern and documentation</td>
</tr>
<tr>
<td>CN Label</td>
<td>Determine contribution to meal pattern (according to manufacturer’s specifications,) and documentation</td>
</tr>
<tr>
<td>Standardized Recipes</td>
<td>Assist in consistent purchasing and preparation of menu items</td>
</tr>
<tr>
<td>MPR</td>
<td>Document that the meals planned, offered, and served meet the meal pattern requirements</td>
</tr>
<tr>
<td>Calculator</td>
<td>Assist in accuracy of calculations when completing the MPR</td>
</tr>
</tbody>
</table>

**Food Buying Guide**


The USDA has been updating the FBG to reflect regulations in the Healthy, Hunger-Free Kids Act of 2010 and has completed the update to the fruits and vegetables section (separating the fruits and vegetables and specifying the vegetable subgroup for each vegetable listed), the M/MA section, the grains section, and the milk section. You can print the new sections from the USDA Web page listed above. The FBG is a tool to assist in a variety of meal planning tasks from purchasing to preparation.
The FBG Calculator for CNPs is used to determine amounts of food to purchase based on serving sizes and number of servings needed. To use this calculator go to the ICN FBG Web page at [http://fbg.nfsmi.org/](http://fbg.nfsmi.org/).

**SAMPLE PAGE from FBG**

- Column 1—Food as Purchased (AP)
- Column 2—Purchase Unit
- Column 3—Servings per Purchase Unit (edible portion [EP])
- Column 4—Serving Size per Meal Contribution
- Column 5—Purchase Unit for 100 Servings
- Column 6—Additional Yield Information

### Section 2 – Vegetables (All Vegetable Subgroups)

#### BEANS, GREEN – Other Subgroup

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans, Green, canned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut</td>
<td>No. 10 can (101 oz)</td>
<td>45.30</td>
<td>1/4 cup heated, drained vegetable</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Includes USDA Foods</td>
<td>No. 10 can (101 oz)</td>
<td>51.10</td>
<td>1/4 cup drained vegetable</td>
<td>2.0</td>
<td>1 No. 10 can = about 60.0 oz (12-7/8 cups) drained, unheated beans</td>
</tr>
</tbody>
</table>
Nutrition Facts Label

The label is located on the product packaging. Keep packaging information for the AR to verify zero trans fat, saturated fat, calories, and sodium per serving.

![Nutrition Facts](image)

**Nutrition Facts**

**Serving Size:** 1 cup (31g)

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong></td>
<td>117</td>
</tr>
<tr>
<td><strong>Calories from Fat</strong></td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total Fat</strong></td>
<td>0.05 g</td>
</tr>
<tr>
<td><strong>Saturated Fat</strong></td>
<td>0.02 g</td>
</tr>
<tr>
<td><strong>Trans Fat</strong></td>
<td>0 g</td>
</tr>
<tr>
<td><strong>Cholesterol</strong></td>
<td>0 mg</td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td>179.25 mg</td>
</tr>
<tr>
<td><strong>Potassium</strong></td>
<td>25.73 mg</td>
</tr>
<tr>
<td><strong>Total Carbohydrate</strong></td>
<td>27.96 g</td>
</tr>
<tr>
<td><strong>Dietary Fiber</strong></td>
<td>0.34 g</td>
</tr>
<tr>
<td><strong>Sugars</strong></td>
<td>8.37 g</td>
</tr>
<tr>
<td><strong>Sugar Alcohols</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td>1.64 g</td>
</tr>
<tr>
<td><strong>Vitamin A</strong></td>
<td>608.22 IU</td>
</tr>
<tr>
<td><strong>Vitamin C</strong></td>
<td>7.13 mg</td>
</tr>
<tr>
<td><strong>Calcium</strong></td>
<td>1.86 mg</td>
</tr>
<tr>
<td><strong>Iron</strong></td>
<td>7.13 mg</td>
</tr>
</tbody>
</table>

Product Formulation Statement

PFSs are needed for all processed foods that are used to meet the meal pattern requirements and that do not have a CN label. Sponsors are required to maintain documentation on convenience products, including processed USDA Foods, which describes their contribution to the meal components. This information must be consistent with the FBG. Sponsors are responsible to validate the PFS by checking any calculations on the manufacturer’s PFS to ensure their accuracy and to verify the contribution to the meal pattern. Examples of food items requiring a PFS are corn dogs, burritos, and pizza. The CDE recommends rechecking PFSs on an annual basis to determine if the manufacturer has reformulated the product.

The CDE has validated some products submitted by manufacturers. Check in the Food Distribution section of CNIPS, under the Downloadable Forms, for validated PFSs.
A PFS should include the following:

- Product name, code number, name of the manufacturer
- The type and weight of M/MA
- Pertinent information on alternate protein product (APP), if applicable
- Type and weight of cooked grain product and ingredient listing
- Signature and title of company representative on manufacturer’s letterhead (electronic and/or font signatures are acceptable)
- Date signed


The USDA revised policy memo provides the Web site links to the following guidance material:

- PFS template and sample for manufacturers for documenting the M/MA products
- PFS template and sample for manufacturers for documenting the fruits and vegetable products
- PFS template and sample for manufacturers for documenting grain products
- A reviewer’s checklist for evaluating a manufacturer PFS for M/MA products


**Note:** A PFS is not needed if the processed item is listed in the FBG or if you have a CN label for the product. Please note however, that only a few processed items are listed in the FBG.

**How to Obtain a PFS**

Contact the manufacturer or vendor from whom you purchased the product or look on the manufacturer’s Web site to obtain the signed PFS. The CDE continues to verify PFSs, so check CNIPS, under the Download Forms section of the Food Distribution section, for specific products you wish to use. See the guidance on Processed Product Documentation on the California Department of Education (CDE) SNP MB Web page at [http://www.cde.ca.gov/ls/nu/ fd/mbfdp02cnp072015.asp](http://www.cde.ca.gov/ls/nu/fd/mbfdp02cnp072015.asp).
If you cannot obtain a PFS, select another vendor who has a PFS or

- Select another product that has a PFS
- Make the product from scratch
- Do not claim the meal for reimbursement

**Child Nutrition Label**

The USDA CN label is a voluntary federal program that provides a warranty for CN labeled products. A CN labeled product allows manufacturers to state a product’s contribution to the food-based meal pattern. CN labels are only for main dish/entrée processed products that contribute at least 0.5 oz. M/MA towards the meal pattern.

The CN label:

- Provides the contribution to the meal pattern in a special format
- Carries the CN logo with the contribution
- States the month and year of approval
- Includes the product identification number assigned by USDA FNS
- CN labels are valid until the product formulation changes or five years have lapsed, whichever comes first

![Sample CN Label](image-url)
The CN labeling program reflects the WGR contributions to the grains component and the vegetable subgroups contribution to the vegetable component. Products containing items with both WGR and non-WGR claims will report this by using the terms oz. eq. grains for WGR items.

If the product contains noncreditable grains in quantity of 2 percent or more or non-WGR grains, there must be a disclaimer immediately below the CN label stating that the product does not meet the WGR criteria for the grains meal component. The SFA may have to serve additional WGR grains to meet the meal pattern requirements.

The USDA Agricultural Marketing Service (AMS) publishes a list of manufacturers that have met all the requirements of the CN labeling program and a list of approved CN labeled products. It is updated monthly and is for informational purposes only. The list is located on the USDA FNS CN Labeling Web page at http://www.fns.usda.gov/cnd/cnlabeling/authorized.htm.

**Watermarked Child Nutrition Labels**

The CN label is the preferred documentation to verify the crediting of menu items and provides a warranty against audit claims as long as the sponsor uses the product according to the manufacturer’s instructions. If the original CN label from the product carton or the valid photograph or photocopy of the original CN Label is not available, sponsors may provide the bill of lading (invoice) containing the product name and a paper or electronic copy of the watermarked CN label that displays the product name and CN number provided by the vendor.

The MB CN Labels Copied with a Watermark—FDP-03-2015 and CNP-08-2015—provides clarification regarding CN labels, watermarked CN labels, and manufacturer’s PFS as they relate to the AR. This MB is located on the CDE SNP MB Web page at http://www.cde.ca.gov/ls/nu/fd/mb-fdp03-cnp08-2015.asp.

**Standardized Recipes**

Standardized recipes are recipes which, when prepared consistently, produce the same products in quality and quantity. The use of standardized recipes has many advantages. Standardized recipes help ensure product quality and consistency for menu planning. Costs are easier to control, the purchaser knows the quantities to buy, and most importantly, the same good results can be produced time after time. All schools must develop and follow standardized recipes.

A standardized recipe is required whenever there is:

- Two or more ingredients
- Preparation required

The school districts in California, identified as culinary centers, developed standardized recipes, conducted taste testing with students, analyzed the recipe for nutrients and contributions to the meal pattern, and created menus with sample MPRs by grade group. To locate the online recipe database, visit the California Healthy Kids Resource Center Web page at http://www.californiahealthykids.org/freshmealsatschools.

The What’s Cooking? USDA Mixing Bowl Web site is available at http://www.whatscooking.fns.usda.gov/. This new, free interactive tool, designed to help consumers; school nutrition professionals, child care centers, and community leaders, find nutritious and budget-friendly recipes. The Web site includes household recipes scaled for families as well as quantity recipes for schools and child care centers in both English and Spanish. More than 400, of the large quantity recipes, have been standardized by USDA and include information on how the recipe contributes toward the meal pattern requirements for school food service.

The Standardized Recipes Good Practices Chart, on the next page, is taken from the ICN, HealthierUS School Challenge: Smarter Lunchrooms curriculum.
### Standardized Recipes Good Practices Chart

<table>
<thead>
<tr>
<th>Description</th>
<th>Good Practices</th>
</tr>
</thead>
</table>
| **Recipe title or the name of the recipe being prepared** | - Include the recipe title*  
- Keep recipe titles as straightforward as possible but may add catchy names |
| **Recipe category and meal pattern contribution** | - Identify by the reimbursable meal component:  
  - M/MAs  
  - Vegetable subgroups (dark green) (red/orange) (beans/peas legumes) (starchy) (other)  
  - Grains (WGR)  
  - Fruits  
  - Milk  
- Code recipes with a meal component requirement |
| **Recipe reference number** | - Create a systematic approach to reference recipes  
- Create reference numbers for your own standardized recipes |
| **Ingredients** | - List ingredients in order of use*  
- Identify type of intended form of product (e.g., carrots, fresh, peeled, chopped into ¼ inch thick pieces)*  
- Identify items requiring advanced preparation or production planning (e.g., thawing strawberries)  
- Schedule employee time to allow adequate preparation time of recipe |
| **Weight and volume of each ingredient** | - List weight and/or volume for each ingredient in recipe*  
- Weigh and measure accurately since a slight variation can alter the results of the recipe  
- Use weight measurements for dry ingredients (e.g., pound [lb.] and ounces [oz.])  
- Use volume measurements for liquid ingredients (e.g., fluid ounces, cup, or gallon)  
- Use volume measurement for herbs, spices, flavorings and other ingredients  
- Avoid using packaging to describe the quantity of ingredient (e.g., 1 loaf)  
- List ingredients in the easiest measurement  
- Identify ingredients in AP or EP |

*Indicates a USDA Requirement.
<table>
<thead>
<tr>
<th>Description</th>
<th>Good Practices</th>
</tr>
</thead>
</table>
| **Recipe yield** | - Identify the amount (weight or volume and number of servings with serving size) of product at the completion of production that is available for service*  
- Identify the number of servings that the recipe produces in total weight and volume*  
- Provide a general description (e.g., 25 servings half steam table pan cut in 5x5 portions) |
| **Nutrients per serving or nutrient analysis** | - May do nutrient analysis with USDA approved software |
| **Food Safety** | - Prepare recipe with good food safety practices. Identify specific cold and hot temperatures (e.g., cooking, holding, serving, cooling, and reheating)  
- Identify the food safety process (e.g., no cook, same day, or complex process)  
- Identify specific allergens in the recipes (i.e., milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat and soybeans) |
| **Preparation instructions** | - Identify the steps necessary to prepare the recipe*  
- List in order the steps to follow in preparing the recipe*  
- Read the instructions before preparing the recipe  
- Check ingredients in advance  
- Review all preparation and cooking terms with staff to ensure they understand exactly what each means |
| **Temperature, time, and cooking methods** | - Identify the cooking temperature, the length of time, and the method (i.e., bake, steam)*  
- Identify the Critical Control Points (e.g., 145° F, 165° F)  
- Calibrate cooking equipment  
- Identify the type of cooking equipment (e.g., convection oven, skillet)  
- Adjust for altitude |
| **Serving and portion size** | - Identify the contribution of each serving toward the reimbursable meals*  
- Identify the size of an individual portion in volume and/or weight*  
- List the weight and/or volume of the serving size  
- Assess whether the serving size is appropriate for the grade being served |
| **Equipment and suggested tools for serving** | - Identify the pans needed for cooking the product. (e.g., the length, width, and depth of steam table pans) |

*Indicates a USDA requirement
**Sample Standardized Recipe**

**STANDARDIZED RECIPE FORM**

**RECIPE NUMBER:** 000996  **RECIPE TITLE:** Bread, Sweet Potato, WGR  **YIELD:** 490

**PORTION SIZE:** 1 piece  **PORTIONS PER RECIPE:** 490  **TEMPERATURE:** STANDARD OVEN: 325°F

**EQUIPMENT NEEDED:** Mixer, Measuring Cups, Sheet Pans

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>Weight</th>
<th>Measure</th>
<th>DIRECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour blend:</td>
<td></td>
<td></td>
<td>CCP: wash hands at appropriate times during the process per SOP</td>
</tr>
<tr>
<td>Whole Wheat Flour</td>
<td>11 IB</td>
<td></td>
<td>CCP: Bake batter within two hours from refrigeration</td>
</tr>
<tr>
<td>All Purpose Enriched Wheat Flour</td>
<td>9 IB</td>
<td></td>
<td>1. Blend all dry ingredients thoroughly in mixer</td>
</tr>
<tr>
<td>Sugar, granulated</td>
<td>12 IB</td>
<td>½ cup</td>
<td>2. Add water, eggs, oil, and sweet potatoes</td>
</tr>
<tr>
<td>Leavening Agent, Baking Soda</td>
<td></td>
<td>% cup</td>
<td>3. Mix well</td>
</tr>
<tr>
<td>Leavening Agent, Baking PDR, Double-acting</td>
<td></td>
<td>% cup</td>
<td>4. Divide into seven sheet pans</td>
</tr>
<tr>
<td>Salt, table</td>
<td></td>
<td>% cup</td>
<td>5. Bake at 325°F for 30 minutes or until wooden pick comes out clean</td>
</tr>
<tr>
<td>Nutmeg, ground</td>
<td></td>
<td>% cup</td>
<td>6. Cut each sheet pan 7 x 10</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>1½ gallon</td>
<td>Note: Sheet pans can be baked the same day it is used.</td>
</tr>
<tr>
<td>Eggs, Pasteurized, whole, frozen</td>
<td></td>
<td>% gallon</td>
<td>CCP: Refrigerate until served</td>
</tr>
<tr>
<td>Oil, Canola</td>
<td></td>
<td>1 gallon</td>
<td></td>
</tr>
<tr>
<td>Sweet Potato, CND, MSHD</td>
<td></td>
<td>2 #10 can</td>
<td></td>
</tr>
</tbody>
</table>

**Meal Pattern Contribution: Grains**

11 lbs WWF x 453.6 grams/lb. = 4989.6 grams divide by 490 portions = 10.18 grams/portion (WWF greater than EWF-WGR product)
9 lbs. EWF x 453.6 grams/lb. = 4082.4 grams divide by 490 portions = 8.33 grams/portion

Total grams = 18.5 grams/portion

18.5 total grams divide by 16.00 grams (reference amount in one grain serving from USDA Policy Memo SP-30-2012) = 1.16-oz eq grain. Round down to nearest ¼

1 piece provides 1 oz eq grain contribution (WGR)

* Recipe compliments of El Monte City School District

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Crediting Components in Standardized Recipes—Recipe Analysis

The FBG is used to credit the contribution of foods in a standardized recipe. A standardized recipe, with portion size and yield, is needed for every menu item containing more than one ingredient or whenever there is any preparation required. The specific recipe will follow the menu item from menu planning to MPR, and on to the serving line to ensure nutritional integrity. In the FBG, Appendix A outlines the process to conduct a recipe analysis by using a recipe analysis worksheet and provides examples of completed recipe analysis. The recipe analysis worksheet (Figure 1, page A-7) was added to the FBG as a tool to help you calculate the contributions of ingredients towards the M/MAs, vegetables, fruits, and/or grain components of the meal pattern requirements. Determining the contribution that your recipes (either USDA-modified or locally produced) make towards the meal pattern requirements is an important step in ensuring that the meals you serve meet federal meal pattern requirements.


The NSD has developed an Excel Recipe Analysis Worksheet to assist with determining the contribution to the meal pattern from a recipe. The following link provides the instructions to use the Excel spreadsheet http://www.calpronet-sj.org/modules16_17/Recipe_Analysis_Instructions.pdf

Open the link for the Excel Recipe Analysis Worksheet http://www.calpronet-sj.org/modules16_17/Recipe_Analysis.xls

Open this link for a sample worksheet for beef taco pie recipe http://www.calpronet-sj.org/modules16_17/Recipe_Analysis_Beef_Taco_Pie.xls

Note: The USDA Policy Memo SP-30-2012 Grain Requirements for the NSLP and the SBP provides the reference weight of 16 grams of creditable grain is equal to 1 oz. eq. grain. This memo is located on the USDA Policy Memo Web site at http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2012/SP30-2012os.pdf.
**Menu Production Records**

The USDA requires sponsors to maintain MPRs documenting that the meals as planned, prepared, and served meet the meal pattern requirements. Sponsors must keep the records up to date and on file for a period of three years following the end of the applicable fiscal year. Each food that is used to meet the food component requirements for any meal pattern must be documented as to its contribution to the food components, including the vegetable subgroups. In addition, sponsors must have itemized receipts for foods purchased.

Maintaining the MPR is the responsibility of the school site staff. It is important that the person responsible for producing a food item be responsible for completing the part of the record that refers to the food that he or she has prepared or portioned. Sponsors are encouraged to have a place on the MPR for each person who completes a part of the MPR to either sign or initial their work.

For sample MPR forms, please visit the CDE MPR Forms Web page at [http://www.cde.ca.gov/ls/nu/he/mnprodfrm.asp](http://www.cde.ca.gov/ls/nu/he/mnprodfrm.asp).

Most nutrient analysis software has MPR templates available. You may be able to customize your own MPR. The next page provides a chart of items that are required to be part of your production records.
### Information Required on Menu Production Records

<table>
<thead>
<tr>
<th>MPRs: Required Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date and Site(s)</strong></td>
<td>The date the menu was served and the site or sites where it was served</td>
</tr>
<tr>
<td><strong>Menu or food items</strong></td>
<td>All planned items, including all choices, types of milk, dessert, and substitutions; listed menu shows that all food components/items are present, including vegetable subgroups</td>
</tr>
<tr>
<td><strong>OVS: Yes or No</strong></td>
<td>Indicate whether OVS is in effect for this MPR</td>
</tr>
<tr>
<td><strong>Recipes and/or products</strong></td>
<td>Specific recipes and food products; name of the food and form; recipe number if USDA; if processed, brand name and code number</td>
</tr>
<tr>
<td><strong>Grade of students served</strong></td>
<td>The grade being served. Adjusted portion sizes for grade group specified must be shown for menu items, recipes, and products</td>
</tr>
<tr>
<td><strong>Portions or serving sizes, both planned and prepared</strong></td>
<td>Portion size served must be the same as planned. If portion size is adjusted for grade, a separate line must be used</td>
</tr>
<tr>
<td><strong>Contribution to the meal pattern (unless documented in another system, must be able to ensure daily and weekly requirements are met)</strong></td>
<td>The contribution to the meal pattern for each food, including WGR and vegetable subgroups</td>
</tr>
<tr>
<td><strong>Total projected servings</strong></td>
<td>Forecasted or predicted approximate number of servings needed for each menu item</td>
</tr>
<tr>
<td><strong>Amount of food used</strong></td>
<td>Verifies that the planned menu was actually prepared and served and must be recorded in common units of measure, e.g., number, size, weight, or volume and be traceable to itemized receipts with the purchase unit such as #10 can or pound</td>
</tr>
<tr>
<td><strong>Total amount of food actually prepared for each food item or menu item</strong></td>
<td>Document the number of servings of each item prepared to students, adults, and as a la carte sales</td>
</tr>
<tr>
<td><strong>Leftovers</strong></td>
<td>A record of leftovers and suggestions including how the leftovers will be used or discarded</td>
</tr>
<tr>
<td><strong>Condiments or extras</strong></td>
<td>All condiments served as part of the reimbursable meal, including gravy, butter, margarine, and salad dressing, and M/MA and starchy vegetable offered as extra food at breakfast</td>
</tr>
<tr>
<td><strong>Substitutions</strong></td>
<td>Document all substitutions made to make sure that all daily and weekly requirements are met</td>
</tr>
</tbody>
</table>
6. Sample Recipes and Menus

The Fresh, Regional, Education-Supportive, Healthy Meals at Schools (FRESHMeals@Schools) is a CDE funded projects that supports districts across California in transforming school meals to positively impact the way students eat while meeting the requirements of The Healthy, Hunger-Free Kids Act of 2010. The Web site includes culinary tips, recipes, and sample menus. For more information, visit the California Healthy Kids Resource Center (CHKRC) Fresh Meals at Schools web page at https://www.cahrealthykids.org/freshmealsatschools.

**California Culinary Centers:** Teams of school district nutrition directors and their staff developed, standardized, and student-tested 140 healthy recipes that include fresh ingredients. The recipes feature ingredients that are locally sourced and cultural flavor profiles from around the world. Each recipe includes ingredients for 50 or 100 servings, directions, meal contribution, and nutrient analysis. The recipes are located on the CHKRC Fresh Meals Recipes Web page at https://www.cahrealthykids.org/fm_recipes.

For samples of weekly menus, access the CHKRC Web page (https://www.cahrealthykids.org/fm_sampleweeklymenus) to view the sample menus: These menus feature FRESHMeals@Schools recipes from the highlighted school district. Daily MPRs and nutrient calculations are included for each day and for the week.

**New Standardized Recipes for Schools:** The USDA Food, Nutrition, and Consumer Services released 50 new and updated recipes for school chefs on the What’s Cooking? USDA Mixing Bowl Web site. The kid-approved recipes are tailored for large quantity food service operations in 25, 50, or 100 portions. Each recipe includes a nutritional breakdown as well as crediting information on how the recipe adheres to updated meal pattern requirements for the National School Lunch Program and other USDA CNPs. The 50 recipes include main dishes and side dishes featuring more nutrient-rich ingredients such as whole grains, dark green, red/orange vegetables, and beans/legumes. You can access the recipes on the USDA Standardized Recipes Web page at http://www.fns.usda.gov/usda-standardized-recipe.
Innovative and Creative Farm to School (F2S) Recipes: Whether participating in California Thursdays or Meatless Mondays, more schools are interested in offering plant-based F2S options. The Humane Society of the United States developed a collection of recipes for SNPs to meet that need. You can access the recipes and many other resources to promote plant-based meals in your school by visiting the Food Forward Resources Web page at http://www.bringfoodforward.org/resources/

7. Self-Assessment Tools

The University of California, Davis (UC Davis) California Professional Nutrition and Education (Cal-Pro-NET) Center developed the Successful Menu Planning Self-assessment Tool. Using your current menu, answer the checklist questions to evaluate compliance with the meal pattern standards. The assessment tool lists meal component requirements and general provisions to enhance your breakfast and lunch service.

Access the link below to view the Breakfast Assessment Tool:
http://www.calpronet-sj.org/modules16_17/Breakfast_Self_Assessment_Tool.pdf

Access the link below to view the Lunch Assessment Tool:
http://www.calpronet-sj.org/modules16_17/Lunch_Self_Assessment_Tool.pdf

The Smarter Lunchrooms Self-assessment Scorecard can be used to assess your menu and meal environment. The scorecard is located on the Smarter Lunchrooms Web document at http://smarterlunchrooms.org/sites/default/files/lunchroom_self-assessmt_score_card.final_.3-10-16.pdf.

The meal pattern worksheets for grades K–5, 6–8, K–8, and 9–12 are another tool to assess current menus in meeting the regulations or to plan new menus that meet meal pattern requirements.

Access the links below to view the Lunch Menu 5-day Worksheets by grade level:
Access the link below to view the Lunch Menu 7-day Worksheets for grades 9–12:

Access the links below to view the Breakfast Menu 5-day Worksheets by grade level:

Access the link below to view the Breakfast Menu 7-Day Worksheets for grade ninth–twelfth:

8. Resources

- Team Nutrition Resources Web site at teamnutrition.usda.gov
- The USDA FNS Web page has all the new policy memos, Questions and Answers, and updates regarding the meal pattern at http://www.fns.usda.gov/cnd/Governance/Legislation/nutritionstandards.htm
- The USDA Healthy Meals Web site provides resources for menu planning and a section that includes best practices located at http://healthymeals.nal.usda.gov/
- ICN Web page at http://www.instituteofchildnutrition.org/
- Orientation to School Nutrition Management–Menu Planning/HealthierUS School

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- **Calculating Grains for School Meals.** This training shows school nutrition staff how to calculate and credit grains in school meals using oz. eq. for grains. Participants learn to determine the daily and weekly oz. eq. of grains for sample school menus and access resources to calculate grain contributions to the meal pattern. **Start the Calculating Grains for School Meals Training**

- **Color the Tray with Vegetable Subgroups!** In this module, participants will identify the vegetable component requirements for the new lunch meal pattern, classify vegetables by subgroup, evaluate a menu for daily vegetable and weekly vegetable subgroup requirements, and access resources to support the new meal pattern requirements. **Start the Color the Tray with Vegetable Subgroups! Training**

- **Culinary Basics.** Learn about the importance of portion control in food preparation and meal service and the benefits of using proper equipment and utensils to measure and control portions. Participants will also be able to compare weight versus volume measurements and access references and resources to prepare accurately standardized recipes and control portions for school food service. **Start the Culinary Basics Training**

- **Determining Whole Grain-Rich Items in School Meals.** During this training, participants learn why whole grains are critical to children's health, learn about the WGR requirements, learn how to identify WGR products for school breakfast and lunch, and access resources to support the whole grain requirements. **Start the Determining Whole Grain-Rich Items in School Meals Training**

- **How to Use the Food Buying Guide.** Learn about the benefits of using and applying the Web-based FBG Calculator to determine purchase amounts for school recipes. Participants obtain access to the FBG and other resources to support accurate recipe development, purchasing, and production for school food service. **Start the How to Use the Food Buying Guide Training**

- **School Breakfast, The Most Important Meal of the Day!** This training describes how breakfast relates to children's health and achievement, the benefits of eating breakfast, and the daily and weekly requirements for a reimbursable breakfast. A variety of types of breakfast service is included as well as resources to provide and promote nutritious school breakfasts. **Start the School Breakfast, The Most Important Meal of the Day! Training**

- **Standardizing Recipes!** Standardizing recipes for school meal programs is key to ensuring students receive the calories and variety of nutrients they need daily. Participants will learn to identify steps to recipe standardizing, to accurately increase or decrease recipe yield to meet student participation needs, and access sample
standardized recipes and resources to create standardized recipes for any school district. **Start the Standardizing Recipes Training**

- The Cal-Pro-NET Center at UC Davis archived Webinars on a variety of menu planning topics (e.g. MPRs, transporting meals, verifying PFSs, Calculating the Contribution from a Recipe) located on their Web page at [http://cns.ucdavis.edu/resources/webinars/index.html](http://cns.ucdavis.edu/resources/webinars/index.html).


- The Food Distribution Program (FDP) unit has prepared the **Food Distribution Program Avenues for Receiving USDA Foods** guide, which compares services among the state distribution centers, state cooperatives (co-ops), and private co-ops. This guide is attached to MB NSD-FDP-02-2013 located on the CDE FDP Changing Receipt of USDA Foods Web page at [http://www.cde.ca.gov/ls/nu/fd/mbnsdfdp022013.asp](http://www.cde.ca.gov/ls/nu/fd/mbnsdfdp022013.asp) or directly at [http://www.cde.ca.gov/ls/nu/fd/documents/mbnsdfdp022013att.doc](http://www.cde.ca.gov/ls/nu/fd/documents/mbnsdfdp022013att.doc).


- Access the SNP Primer located on the SJSU Cal-Pro-NET Center Web page at [http://www.calpronet-SJ.org/snp_primer.htm](http://www.calpronet-SJ.org/snp_primer.htm).

**Contacts**

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Email: lporter@cde.ca.gov

For the name and phone number of your local CNC, please call 800-952-5609 or 916-323-2590.
This module provides the following Professional Standards:

**Key Area:** Nutrition (1000)
**Key Topic:** Menu Planning (1100)
**Learning Objective:** Plan menus that meet USDA nutrition requirements (1110); Analyze menus for school meal pattern requirements (1150)

**Instructional Minutes** = 60