

# HEALTHY SCHOOL MEALS

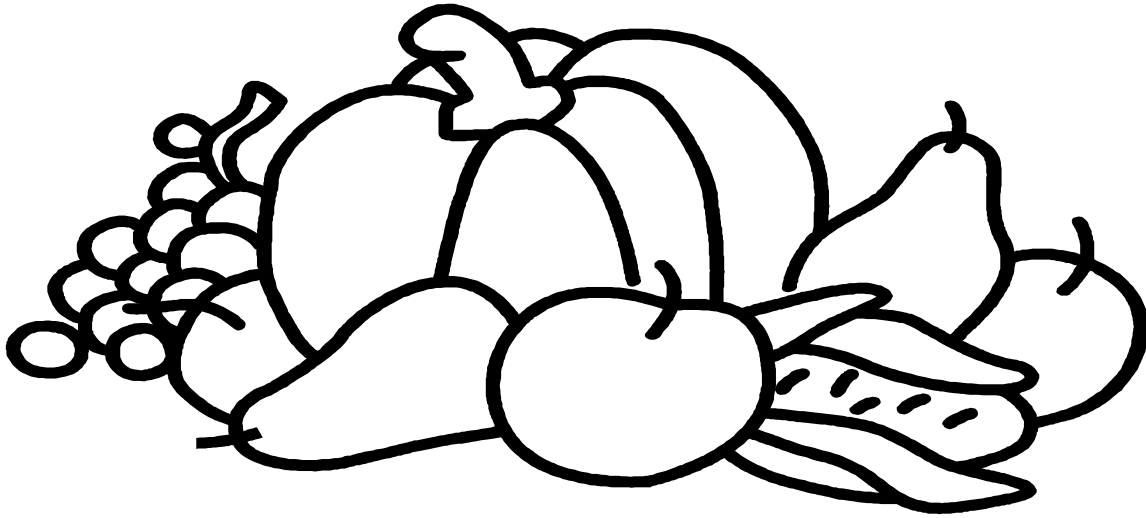


## IMPLEMENTATION OF SCHOOL MEALS INITIATIVE (FOOD BASED)

MISSOURI DEPARTMENT OF ELEMENTARY  
AND SECONDARY EDUCATION  
SCHOOL FOOD SERVICES SECTION  
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## **INTRODUCTION**

### **The Purpose of Healthy School Meals**

Nutrition is a vital part of the healthy lifestyle to help prevent disease and disability. There is more to good nutrition than having enough food. It requires eating an adequate balance of healthy food.

Because diet has a long-range effect on health, happiness, education, and success for children, Healthy School Meals is our opportunity to enhance the future for students and their ability to learn. By serving nutritious meals and providing nutrition education through quality school food services, we form a vital link to the physical and intellectual fitness of children.

Americans generally consume too little fiber and too much fat, saturated fat, cholesterol, and sodium. Because we need to improve nutrition habits, our federal, state and local governments have taken steps to help adjust our children's diets.

In 1990, the Dietary Guidelines for Americans were revised to establish appropriate calorie levels from total fat and saturated fat, and to recommend monitoring sodium, cholesterol, and fiber intake for everyone over two years old.

By 1994, Congress passed legislation called the Healthy Meals for Healthy Americans Act, requiring Child Nutrition Programs to comply with the Dietary Guidelines and meet nutrient standards.

In the summer of 1995, the United States Department of Agriculture (USDA) issued new regulations to define how the Dietary Guidelines would be applied to school meals. It was called the School Meals Initiative (SMI).

Since July 1, 1996, compliance with the Dietary Guidelines is to be achieved through a choice of meal planning options for schools to reach the nutrient standards for Healthy School Meals. Local Education Agencies (LEAs) can operate within one of four specific menu planning options: Nutrient Standard, Assisted Nutrient Standard, Enhanced Food Based Menu Planning, or Traditional Food Based Menu Planning.

Schools are reviewed periodically to determine if they are following the menu planning option they selected, and if menus are meeting nutrition standards.

# OBJECTIVES

Upon completion of this workshop, you will be prepared to:

1. Recognize the required components of a reimbursable meal for Enhanced and Traditional Food Based Menu Planning (FBMP).
2. Identify correct grade groups for Enhanced and Traditional FBMP.
3. Recognize a reimbursable breakfast and lunch when Offer versus Serve is implemented.
4. Identify the benefits of using standardized recipes in FBMP.
5. Identify all required components of a standardized recipe.
6. Complete a Menu Production Record for use producing a menu.
7. Evaluate a production record for adequate quantities of foods prepared using the Food Buying Guide.
8. Calculate the number of grains/breads servings in a product.
9. Evaluate the number of grains/bread servings in a menu for a week and compare to the number of servings required.
10. Recognize and understand a Nutrition Facts Label.
11. Identify and complete nutrient analysis for purchased products.
12. Organize materials needed for a State review and nutrient analysis.
13. Identify methods to modify menus to improve menu nutrient analysis.



# MENU PLANNING SYSTEMS

*A brief explanation of the two approved menu planning options discussed in this guide.*

## **Traditional Food Based Menu Planning**

The traditional meal pattern is most familiar to school food service professionals. It has remained virtually unchanged since its inception as the “Type A” lunch pattern in 1946. Schools must offer all children five food items from the four food components. A serving of meat/meat alternate, grains/breads (at least one each day and a total of eight servings per week), two different vegetables/fruits and fluid milk is provided. Schools using Traditional Food Based Menu Planning (FBMP) may not count grain-based desserts to meet part of the grains/breads requirement.

Traditional FBMP requires the following grade groups: Preschool, K-3, and 4-12 and an optional grade group 7-12. Recommended quantities for the meat/meat alternate and grains/breads for children in grades 7-12 are larger to help meet their higher nutritional needs.

Because of its familiarity, Traditional FBMP remains attractive to many food service directors and, with modifications, can allow meal planning that complies with the nutrition standards.

## **Enhanced Food Based Menu Planning**

The June 13, 1995, final regulation implemented Enhanced Food Based Menu Planning (FBMP) which is a variation of the traditional meal pattern. While designed to increase calories from nonfat or low fat sources, essentially the Enhanced FBMP retains the four components, five food items of the traditional meal pattern. It requires the same amounts of meat/meat alternate and milk as Traditional FBMP. However, grade groups are different and vegetables/fruits and grains/breads quantities are different when compared to Traditional FBMP.

Enhanced FBMP requires the following grade groups: Preschool, K-6, 7-12 and an optional grade group, K-3. The vegetables/fruits serving size and the weekly number of grains/breads are increased in Enhanced FBMP. Counting up to one grain-based dessert each day helps meet part of the increased grains/breads requirement.

Enhanced FBMP may appeal to schools that wish to retain the structure of a meal pattern but need to offset the loss of calories resulting from lower fat menu items. They can do this by using foods from the grains/breads and vegetables/fruits components.

# PROGRAM REQUIREMENTS AND REGULATIONS

# NUTRITION GOALS

*All meals served under the National School Lunch and Breakfast Programs, must strive to meet eight nutrient standards and recommendations of the Dietary Guidelines. This section clarifies the SMI nutrition goals, which apply to all programs regardless which menu planning option is used.*

According to the SMI, school meals must meet nutrient standards averaged over a week (three to seven consecutive days).

## THE KEY ELEMENTS OF NUTRIENT STANDARDS

- |              |                  |            |              |
|--------------|------------------|------------|--------------|
| 1. Calories  | 3. Saturated Fat | 5. Calcium | 7. Vitamin A |
| 2. Total Fat | 4. Protein       | 6. Iron    | 8. Vitamin C |

The standard for total fat is no more than 30 percent of total calories. The standard for saturated fat is less than 10 percent of total calories. Values for the other nutrients and calories are based on the Recommended Dietary Allowances (RDAs) for specific age groups.

The regulations also seek to reduce sodium and cholesterol and to increase carbohydrate and fiber in school meals. Although specific amounts have not been set for these nutrients and dietary components, you are expected to track them to demonstrate that, over time, you have reduced sodium and cholesterol and increased carbohydrate and fiber in the meals you offer students. The State Agency has provided guidance for sodium, cholesterol, and fiber.

## RECOMMENDED DIETARY ALLOWANCES RDAs

The RDAs are set by the National Academy of Sciences/National Research Council and the Food and Nutrition Board. These organizations are independent scientific bodies, not government agencies. The RDAs were set for the first time in 1943 and have been revised periodically, based on reviews of current scientific research. The RDAs are the nutrient levels that have been determined to meet the adequate nutritional needs of most healthy people.

# DIETARY GUIDELINES FOR AMERICANS

The Dietary Guidelines for Americans are published every five years as a joint project of the United States Department of Agriculture and the United States Department of Health and Senior Services. While RDAs are established to recommend nutrient adequacy to avoid deficiency diseases, the Dietary Guidelines are written to help people select a diet that promotes optimal health.

## APPLICABLE DIETARY GUIDELINES

- Eat a variety of foods
- Limit total fat to 30 percent of calories
- Limit saturated fat to less than 10 percent of calories
- Choose a diet low in cholesterol
- Choose a diet with plenty of vegetables, fruits and grain products
- Use salt and sodium in moderation

SMI requires that meals served in the National School Lunch Program contain nutrients that meet one third of the RDAs for calories and eight specified nutrients according to age/grade levels. Meals served in the School Breakfast Program must contain nutrients that meet one-fourth of the RDAs for calories and eight specified nutrients according to age/grade levels. All meals served must meet the Dietary Guidelines. As the RDAs and the Dietary Guidelines are updated, the SMI nutrient standards will be modified to reflect the most current scientific recommendations.

**GRADE GROUPS FOR NUTRIENT STANDARD, ASSISTED NUTRIENT STANDARD, AND  
ENHANCED FOOD BASED MENU PLANNING  
SCHOOL LUNCH**

MINIMUM REQUIREMENTS FOR NUTRIENT AND CALORIE LEVELS FOR SCHOOL LUNCH  
(School Week Averages)

**Grade Groupings**

Nutrients and Energy Allowances	Preschool	Grades K-6	Grades 7-12	Option for Grades K-3
Energy Allowance (calories)	517	664	825	633
Total Fat	1	1	1	1
Saturated Fat	2	2	2	2
Protein (g)	7	10	16	9
Calcium (mg)	267	286	400	267
Iron	3.3	3.5	4.5	3.3
Vitamin A (RE)	150	224	300	200
Vitamin C (mg)	14	15	18	15
Cholesterol (mg) <sup>3</sup>	100	100	100	100
Fiber (g) <sup>3</sup>	3	4	7	4
Sodium (mg) <sup>3</sup>	1350	1350	1350	1350

<sup>1</sup> Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup> Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup> State Guidance.

**GRADE GROUPS FOR NUTRIENT STANDARD, ASSISTED NUTRIENT STANDARD, AND  
ENHANCED FOOD BASED MENU PLANNING  
SCHOOL BREAKFAST**

MINIMUM REQUIREMENTS FOR NUTRIENT AND CALORIE LEVELS FOR SCHOOL BREAKFAST  
(School Week Averages)

**Grade Groupings**

Nutrients and Energy Allowances	Preschool	Grades K-12	Option for Grades K-3
Energy Allowance (calories)	388	554	618
Total Fat	1	1	1
Saturated Fat	2	2	2
Protein (g)	5	10	12
Calcium (mg)	100	257	300
Iron	2.5	3.0	3.4
Vitamin A (RE)	113	197	225
Vitamin C (mg)	11	13	14
Cholesterol (mg) <sup>3</sup>	75	75	75
Fiber (g) <sup>3</sup>	2	4	5
Sodium (mg) <sup>3</sup>	1000	1000	1000

<sup>1</sup> Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup> Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup> State Guidance.

## GRADE GROUPS FOR TRADITIONAL FOOD BASED MENU PLANNING

### SCHOOL LUNCH

MINIMUM REQUIREMENTS FOR NUTRIENT AND CALORIE LEVELS FOR SCHOOL LUNCH  
(School Week Averages)

#### Grade Groupings

Nutrients and Energy Allowances	Preschool	Grades K-3	Grades 4-12	Option for Grades 7-12
Energy Allowance (calories)	517	633	785	825
Total Fat	1	1	1	1
Saturated Fat	2	2	2	2
Protein (g)	7	9	15	16
Calcium (mg)	267	267	370	400
Iron	3.3	3.3	4.2	4.5
Vitamin A (RE)	150	200	285	300
Vitamin C (mg)	14	15	17	18
Cholesterol (mg) <sup>3</sup>	100	100	100	100
Fiber (g) <sup>3</sup>	3	4	6	7
Sodium (mg) <sup>3</sup>	1350	1350	1350	1350

<sup>1</sup> Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup> Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup> State Guidance.

## GRADE GROUPS FOR TRADITIONAL FOOD BASED MENU PLANNING

### SCHOOL BREAKFAST

MINIMUM REQUIREMENTS FOR NUTRIENT AND CALORIE LEVELS FOR SCHOOL BREAKFAST  
(School Week Averages)

#### Grade Groupings

Nutrients and Energy Allowances	Preschool	Grades K-12
Energy Allowance (calories)	388	554
Total Fat	1	1
Saturated Fat	2	2
Protein (g)	5	10
Calcium (mg)	200	257
Iron	2.5	3.0
Vitamin A (RE)	113	197
Vitamin C (mg)	11	13
Cholesterol (mg) <sup>3</sup>	75	75
Fiber (g) <sup>3</sup>	2	4
Sodium (mg) <sup>3</sup>	1000	1000

<sup>1</sup> Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup> Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup> State Guidance.

**Missouri Department of Elementary and Secondary Education  
School Food Services Section**

**Guidance on Acceptable Levels of Sodium, Cholesterol, and Fiber**

*Levels of Sodium and Cholesterol are the same for all menu planning options*

	Breakfast (1/4)	Lunch (1/3)
Sodium (3 g/day)	1000 mg	1350 mg
Cholesterol (300 mg/day)	75 mg	100 mg

**Average Levels for fiber vary with menu planning option**

*Nutrient Standard and Assisted Nutrient Standard Menu Planning  
Age Groupings*

Fiber	Ages 3-6	Ages 7-10	Ages 11-13	Ages 14 and Above
Breakfast [(age + 5 g) / 4]	2 g	3 g	4 g	5 g
Lunch [(age + 5 g) / 3]	3 g	5 g	6 g	7 g

*Nutrient Standard, Assisted Nutrient Standard, and Enhanced Food Based Menu Planning  
Grade Groupings*

Fiber	Preschool	K-12	Optional 7-12
Breakfast [(age + 5 g) / 4]	2 g	4 g	5 g

Fiber	Preschool	K-6	7-12	Optional K-3
Lunch [(age + 5 g) / 3]	3 g	4 g	7 g	4 g

*Traditional Food Based Menu Planning  
Grade Groupings*

Fiber	Preschool	K-12
Breakfast [(age + 5 g) / 4]	2 g	4 g

Fiber	Preschool	K-3	4-12	Optional 7-12
Lunch [(age + 5g) / 3]	3 g	4 g	6 g	7 g

g = grams  
mg = milligrams

# FOOD COMPONENTS AND ITEMS

A *food component* is one of the four food groups which compose the reimbursable school lunch, i.e., meat or meat alternate, milk, grains/breads and vegetables/fruits or one of the four food groups which compose the reimbursable school breakfast, i.e., meat or meat alternate, milk, grains/breads, or juice/fruit/vegetable.

## Lunch Food Components

- Meat/Meat Alternate
- Vegetables/Fruits
- Grains/Breads
- Milk

## Breakfast Food Components

- Meat/Meat Alternate
- Juice/Fruits/Vegetables
- Grains/Breads
- Milk

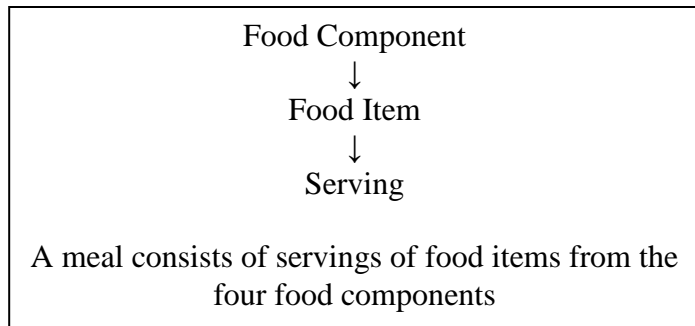
### **A *food item* is:**

- One of the five required foods for lunch  
A meat or meat alternate  
Milk  
Grains/Breads  
Two Vegetables and/or Fruits

## Notes

**One of the four required foods for breakfast**

- Grains/Breads and/or Meat or Meat Alternate
- Milk
- Juice/Fruit/Vegetable



An example with grains/breads is shown below:

**Food Based Lunch**

NSLP Food Component  
-Grains/Breads

Food Item  
-One daily serving plus minimum weekly total

Serving minimums for this food component/food item

- 1 slice of bread
- 1 roll
- 1/2 cup of pasta

**Notes**

# ENHANCED FOOD BASED MENU PLANNING

## School Lunch

MINIMUM QUANTITIES REQUIRED FOR ENHANCED MEAL PATTERN LUNCH					
	Required				Option for
	Ages 1-2	Preschool	Grades K-6	Grades 7-12	Grades K-3
<b>Meal Component</b>					
<b>Milk</b> (fluid – as a beverage)	6 fl. oz.	6 fl. oz.	8 fl. oz.	8 fl. oz.	8 fl. oz.
<b>Meat or Meat Alternate</b> (quantity of the edible portion as served)					
Lean meat, poultry, or fish	1 oz	1 ½ oz	2 oz	2 oz	1 ½ oz
Cheese	1 oz	1 ½ oz	2 oz	2 oz	1 ½ oz
Large egg	½	¾	1	1	¾
Cooked dry beans or peas	¼ cup	3/8 cup	½ cup	½ cup	3/8 cup
Peanut butter or other nut or seed butters	2 Tbsp	3 Tbsp	4 Tbsp	4 Tbsp	3 Tbsp
Yogurt, plain or flavored, unsweetened or sweetened	4 oz or ½ cup	6 oz or ½ cup	8 oz or 1 cup	8 oz or 1 cup	6 oz or ¾ cup
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above:					
Peanuts, soynuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 ounce of cooked lean meat, poultry, or fish)	½ oz = 50%	¾ oz = 50%	1 oz = 50%	1 oz = 50%	¾ oz = 50%
<b>Vegetables/Fruits</b> (2 or more servings of vegetables or fruits or both to equal total amount)	½ cup	½ cup	¾ cup plus additional ½ cup over a week	1 cup	¾ cup
<b>Grains/Breads</b> Must be enriched or whole grain	5 servings per week <sup>1</sup>	8 servings per week <sup>1</sup>	12 servings per week <sup>1</sup>	15 servings per week <sup>1</sup>	10 servings per week <sup>1</sup>
A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains	Minimum of ½ per day	Minimum of 1 per day	Minimum of 1 per day <sup>2</sup>	Minimum of 1 per day <sup>2</sup>	Minimum of 1 per day <sup>2</sup>

<sup>1</sup> For the purpose of this chart, a week equals five days.

<sup>2</sup> Up to one grains/breads serving per day may be a dessert.

# ENHANCED FOOD BASED MENU PLANNING

## School Breakfast

MINIMUM QUANTITIES REQUIRED FOR ENHANCED MEAL PATTERN BREAKFAST				
	Required			Option for
	Ages 1-2	Preschool	Grades K-12	Grades 7-12
<b>Meal Component</b>				
<b>Milk</b> (fluid - as a beverage, on cereal or both)	½ cup	¾ cup	8 fl oz	8 fl oz
<b>Juice/Fruit/Vegetable</b> Fruit and/or vegetable; or full-strength fruit juice or vegetable juice	¼ cup	½ cup	½ cup	½ cup

SELECT ONE SERVING FROM EACH OF THE FOLLOWING COMPONENTS OR TWO FROM ONE COMPONENT:

<b>Grains/Breads</b> One of the following or an equivalent combination				
Whole-grain or enriched bread	½ slice	½ slice	1 slice	1 slice
Whole-grain or enriched biscuit, roll, muffin, etc.	½ serving	½ serving	1 serving	1 serving
Whole-grain, enriched, or fortified cereal	¼ cup or 1/3 oz	1/3 cup or ½ oz	¾ cup or 1 oz	¾ cup or 1 oz
				<u>Plus</u> an additional serving of one of the Grains/Breads above
<b>Meat or Meat Alternate</b>				
Meat/ poultry, or fish	½ oz	½ oz	1 oz	1 oz
Cheese	½ oz	½ oz	1 oz	1 oz
Egg (large)	½	½	½	½
Peanut butter or other nut or seed butters	1 Tbsp	1 Tbsp	2 Tbsp	2 Tbsp
Cooked dry beans and peas	2 Tbsp	2 Tbsp	4 Tbsp	4 Tbsp
Yogurt, plain or flavored, unsweetened or sweetened	2 oz or ¼ cup	2 oz or ¼ cup	4 oz or ½ cup	4 oz or ½ cup
Nut and or seeds (as listed in program guidance)	½ oz	½ oz	1 oz	1 oz

<sup>1</sup> No more than 1 ounce of nuts and/or seeds may be served in any one meal.

# TRADITIONAL FOOD BASED MENU PLANNING

## School Lunch

MINIMUM QUANTITIES FOR TRADITIONAL MEAL PATTERN LUNCH					
	Required				Recommended Quantities
	Preschool		Grades K-3	Grades 4-12	Grades 7-12
	Ages 1-2 Group I	Ages 3-4 Group II	Ages 5-8 Group III	Ages 9 & older Group IV	Ages 12 & older Group V
<b>Meal Component</b>					
<b>Milk</b> (fluid – as a beverage)	6 fl oz	6 fl oz	8 fl oz	8 fl oz	8 fl oz
<b>Meat or Meat Alternate</b> (quantity of the edible portion as served)					
Lean meat, poultry, or fish	1 oz	1 ½ oz	1 ½ oz	2 oz	3 oz
Cheese	1 oz	1 ½ oz	1 ½ oz	2oz	3 oz
Large egg	½	¾	¾	1	1 ½
Cooked dry beans or peas	¼ cup	3/8 cup	3/8 cup	½ cup	¾ cup
Peanut butter or other nut or seed butters	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp
Yogurt, plain or flavored, unsweetened or sweetened	4 oz or ½ cup	6 oz or ¾ cup	6 oz or ¾ cup	8 oz or 1 cup	12 oz or 1 ½ cups
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above:					
Peanuts, soynuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 ounce of nuts/seeds = 1 ounce of cooked lean meat, poultry, or fish)	½ oz = 50%	¾ oz = 50%	¾ oz = 50%	1 oz = 50%	1 ½ oz = 50%
<b>Vegetables/Fruits</b> (2 or more servings of vegetables or fruits or both to equal total amount)	½ cup	½ cup	½ cup	¾ cup	¾ cup
<b>Grains/Breads</b> Must be enriched or whole grain	5 servings per week <sup>1</sup>	8 servings per week <sup>1</sup>	8 servings per week <sup>1</sup>	8 servings per week <sup>1</sup>	10 servings per week <sup>1</sup>
A serving is a slice of bread or an equivalent serving of biscuits, rolls etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains	Minimum of ½ per day	Minimum of 1 per day	Minimum of 1 per day	Minimum of 1 per day	Minimum of 1 per day

<sup>1</sup>For the purposes of this chart, a week equals 5 days.

# TRADITIONAL FOOD BASED MENU PLANNING

## School Breakfast

MINIMUM QUANTITIES FOR TRADITIONAL MEAL PATTERN BREAKFAST			
	Minimum quantities required for		
	Ages 1-2	Ages 3, 4, and 5	Grades K-12
<b>Meal Component</b>			
<b>Milk</b> (fluid – as a beverage, on cereal or both)	4 fl oz or ½ cup	6 fl oz or ¾ cup	8 fl oz or 1 cup
<b>Juice/Fruit/Vegetable</b> Fruit and/or vegetable; or full-strength fruit juice or vegetable juice	¼ cup	½ cup	½ cup

Select one serving from each of the following components or two from one component:

<b>Grains/Breads</b> One of the following or an equivalent combination.			
Whole grain or enriched bread	½ slice	½ slice	1 slice
Whole grain or enriched biscuit/roll, muffin, etc.	½ serving	½ serving	1 serving
Whole grain, enriched or fortified cereal	¼ cup or 1/3 oz	1/3 cup or ½ oz	¾ cup or 1 oz
<b>Meat or Meat Alternates</b>			
Meat/ poultry, or fish	½ oz	½ oz	1 oz
Cheese	½ oz	½ oz	1 oz
Large Egg	½	½	½
Peanut butter or other nut or seed butters	1 Tbsp	1 Tbsp	2 Tbsp
Cooked dry beans and peas	2 Tbsp	2 Tbsp	4 Tbsp
Yogurt, plain or flavored, unsweetened or sweetened	2 oz or ¼ cup	2 oz or ¼ cup	4 oz or ½ cup
Nut and/or seeds (as listed in program guidance) <sup>1</sup>	½ oz	½ oz	1 oz

<sup>1</sup>No more than 1 oz of nuts and/or seeds may be served in any one meal.

# COMPARISON OF FOOD BASED MENU PLANNING (FBMP) AT A GLANCE

## Lunch

<b>ENHANCED FBMP</b> Minimum Daily and Weekly Quantities Food Components	<b>TRADITIONAL FBMP</b> Minimum Daily and Weekly Quantities Food Components
<b>Meat/Meat Alternate</b>	
Ages 1-2 = 1 oz Preschool = 1 ½ oz Grades K-6 = 2 oz Grades 7-12 = 2 oz Option for K-3 = 1 ½ oz	Ages 1-2 = 1 oz Ages 3-4 = 1 ½ oz Grades K-3 = 1 ½ oz Grades 4-12 = 2 oz Option for 7-12 = 3 oz
<b>Vegetables/Fruits*</b>	
Ages 1-2 = ½ cup Preschool = ½ cup Grades K-6 = ¾ cup plus ½ cup over a week Grades 7-12 = 1 cup Option for K-3 = ¾ cup *Minimum serving to count = 1/8 cup	Ages 1-2 = ½ cup Ages 3-4 = ½ cup Grades K-3 = ½ cup Grades 4-12 = ¾ cup Option for 7-12 = ¾ cup *Minimum serving to count = 1/8 cup
<b>Grains/Breads<sup>1,2,3</sup></b>	
Ages 1-2 <sup>3</sup> = 5 servings per week Preschool = 8 servings per week Grades K-6 = 12 servings per week Grades 7-12 = 15 servings per week Option for K-3 = 10 servings per week  *Up to one serving per day may be a grains based dessert.  <sup>1</sup> Minimum of 1 serving per day <sup>2</sup> Minimum serving to count = ¼ serving <sup>3</sup> Minimum of ½ serving per day	Ages 1-2 <sup>3</sup> = 5 servings per week Ages 3-4 = 8 servings per week Grades K-3 = 8 servings per week Grades 4-12 = 8 servings per week Option for 7-12 = 10 servings per week  *Grain based dessert may <u>NOT</u> count as meeting part of the grains/breads requirement.  <sup>1</sup> Minimum of 1 serving per day <sup>2</sup> Minimum serving to count = ¼ serving <sup>3</sup> Minimum of ½ serving per day
<b>Milk</b>	
Ages 1-2 = 6 fl oz Preschool = 6 fl oz Grades K-6 = 8 fl oz Grades 7-12 = 8 fl oz Option for K-3 = 8 fl oz  *Current regulation requires that fluid milk be offered in at least 2 varieties of fat content.	Ages 1-2 = 6 fl oz Ages 3-4 = 6 fl oz Grades K-3 = 8 fl oz Grades 4-12 = 8 fl oz Option for 7-12 = 8 fl oz  *Current regulation requires that fluid milk be offered in at least 2 varieties of fat content.

# COMPARISON OF FOOD BASED MENU PLANNING (FBMP) AT A GLANCE

## Breakfast

<b>ENHANCED FBMP</b> Minimum Daily and Weekly Quantities Food Components	<b>TRADITIONAL FBMP</b> Minimum Daily and Weekly Quantities Food Components
<b>Milk</b>	
Ages 1-2 = ½ cup Preschool = ¾ cup Grades K-12 = 8 fl oz Option for 7-12 = 8 fl oz	Ages 1-2 = ½ cup Ages 3,4,5 = ¾ cup Grades K-12 = 8 fl oz
<b>Juice/Vegetables/Fruits</b>	
Ages 1-2 = ¼ cup Preschool = ½ cup Grades K-12 = ½ cup Option for 7-12 = ½ cup	Ages 1-2 = ¼ cup Ages 3,4,5 = ½ cup Grades K-12 = ½ cup
<i>*Select one serving from each of the following components or two from one component.</i>	<i>*Select one serving from each of the following components or two from one component.</i>
<b>Grains/Breads*</b>	
Ages 1-2 = ½ serving Preschool = ½ serving Grades K-12 = 1 serving Option for 7-12 = 2 servings	Ages 1-2 = ½ serving Ages 3,4,5 = ½ serving Grades K-12 = 1 serving
<b>Meat/Meat Alternate*</b>	
Ages 1-2 = ½ oz Preschool = ½ oz Grades K-12 = 1 oz Option for 7-12 = 1oz	Ages 1-2 = ½ oz Ages 3,4,5 = ½ oz Grades K-12 = 1 oz

## **OFFER versus SERVE**

### **FBMP General Rules**

- Allows students to decline a certain number of food items in the meal.
- Reduces food waste and food costs.
- Must be implemented in senior high schools for lunch.
- Junior high, middle schools, and elementary schools have the option for lunch.

Under Offer versus Serve, students are allowed to take smaller portions of the *declined* food items. The required food items taken by the students, however, must be a full serving.

The decision to decline the allowed number of food items or to accept smaller portions of otherwise declined food items does not affect the charge for the meal.

Within the minimum quantities specified in the regulations for the various age and grade groups, the menu planner establishes what constitutes a “serving”.

### **Goals of Offer versus Serve**

- Minimize plate waste
- Encourage more food choices

## **Notes**

**School Lunch Program  
Offer versus Serve**

- All five food items must be offered to all students.
- The serving sizes must equal the minimum required quantities by age or grade group.
- The lunch must be priced as a unit.
- Students have the option of which item(s) to decline.

Students must be offered all five required food items:

- One serving of each:
  - Meat/Meat Alternate
  - Milk
  - Grains/Breads

Two servings of:

- Vegetables/Fruits

Senior high students are allowed to decline two of the five required food items. Offer versus Serve is optional below the senior high level. Students below the senior high level may be permitted to decline one or two of the five required food items.

**School Breakfast Program  
Offer versus Serve**

- All four food items must be offered to students.
- The serving sizes must equal the minimum quantities required by age or grade group.
- The breakfast must be priced as a unit.
- Students have the option of which item to decline.

Students must be offered all four required food items:

- One serving each:
  - Milk
  - Juice/Fruit/Vegetable
- One of each or two of:
  - Grains/Breads
  - Meat/Meat Alternate
  -

At the option of the school food authority, students may refuse one *food* item from any component.

**Notes**

## Grains/Breads and Offer versus Serve

For the Grains/Breads food component/food item, the daily component requirement will be considered met if the student selects *at least* one of the one or more daily servings offered. When choices are offered within food items, the choice offering the highest number of grains/breads daily should be counted toward the required number of servings per week

For example, in a school with grades 7-12, the following foods are offered as the Grains/Breads food component/food item to meet the 15 servings per week/one day requirement for Enhanced FBMP.

### Day 1

- 1 slice of garlic bread (counts as one serving)
- 1 cup of spaghetti (2 servings)
- The required minimum for dessert item (1 serving)

Total servings: 4

### Day 2

- ½ cup of rice (1 serving)
- The required minimum for dessert item (1 serving)

Total servings: 2

### Day 3

- 1 cup of noodles (2 servings)
- 1 roll (1 serving)
- The required minimum for a dessert item (1 serving)

Total servings: 4

### Day 4

- 1 cup of noodles (2 servings)
- 1 roll
- The required minimum for a dessert item (1 serving)

Total servings: 4

### Day 5

- 1 roll

Total Servings: 1

Total servings for the week: 15

In this example, the school is complying with all requirements for Enhanced FBMP as it offered at least one serving of this food item daily and also offered the required *weekly* total. *In order to count a dessert item as a Grains/Breads components it must meet defined serving sizes and be priced as a part of the reimbursable meal.*

## Notes

# LUNCH MEAL PATTERN REQUIREMENTS

1. Determine if the following school lunches are reimbursable. (Assume all meals include the appropriate serving sizes.)

A. Pizza  
Tossed salad  
Banana  
Milk  
\_\_\_\_\_ Yes \_\_\_\_\_ No

B. Spaghetti with meat sauce  
Garlic bread  
Tossed salad  
Milk  
\_\_\_\_\_ Yes \_\_\_\_\_ No

C. Burritos  
Spanish rice  
Milk  
\_\_\_\_\_ Yes \_\_\_\_\_ No

D. Hamburger on a bun  
French fries  
Corn  
\_\_\_\_\_ Yes \_\_\_\_\_ No

E. Baked potato with bean chili and  
cheese  
Coleslaw  
Milk  
Oatmeal cookie  
\_\_\_\_\_ Yes \_\_\_\_\_ No

2. Are there portion sizes that must be served in order for a meal to be reimbursable?

\_\_\_\_\_ Yes \_\_\_\_\_ No

3. Name the five FOOD ITEMS that form the reimbursable school lunch:

4. Name the four COMPONENTS that form the reimbursable school lunch:

# LUNCH OFFER VERSUS SERVE

1. Determine if the following are reimbursable under Offer versus Serve. (Assume all meals include the appropriate serving sizes and the student can decline up to two items.)

A. Grilled cheese sandwich  
Apple wedge  
Milk  
\_\_\_\_\_ Yes \_\_\_\_\_ No

B. Salisbury steak  
Corn  
Brownie  
\_\_\_\_\_ Yes \_\_\_\_\_ No

C. Turkey and cheese sub  
Pears  
\_\_\_\_\_ Yes \_\_\_\_\_ No

D. French fries  
Red apple  
Cherry cobbler  
\_\_\_\_\_ Yes \_\_\_\_\_ No

E. Bean chili  
Whole wheat roll  
Milk  
\_\_\_\_\_ Yes \_\_\_\_\_ No

F. Cottage cheese/Fruit plate  
Milk  
\_\_\_\_\_ Yes \_\_\_\_\_ No

2. Do the requirements of offer versus serve for senior high school students allow each student the choice of declining one or two of the five food items that must be offered?

\_\_\_\_\_ Yes \_\_\_\_\_ No

3. Under Offer versus Serve can a SCHOOL decide which items a student can decline?

\_\_\_\_\_ Yes \_\_\_\_\_ No

4. When Offer versus Serve has been implemented, does the decision of which item(s) to decline rest solely with student?

\_\_\_\_\_ Yes \_\_\_\_\_ No

5. May a student select two of the same food items and have them count as two components of a reimbursable lunch?

\_\_\_\_\_ Yes \_\_\_\_\_ No

# BREAKFAST MEAL PATTERN

1. Two servings of which of the following food items counts toward a reimbursable meal?

- A. Milk
- B. Meat/Meat Alternate
- C. Grains/Breads
- D. Vegetable and/or fruit or juice
- E. A and C
- F. B and C

2. Which of the following combinations of food items provides a reimbursable school breakfast?

- A. One serving of fluid milk, one serving of vegetable or fruit or full-strength juice, and two servings of meat/meat alternate.
- B. One serving of fluid milk, one serving of vegetable or fruit or full-strength juice, and two servings of grains/breads.
- C. One serving of fluid milk, one serving of vegetable or fruit or full-strength juice, one serving of meat/meat alternate, and one serving of grains/breads.
- D. All of the above.
- E. None of the above.

3. Determine if the following school breakfasts are reimbursable.

(Assume all meals contain the appropriate serving sizes.)

- |                                                                                          |                                                                   |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| A. Cheese toast (one slice)<br>Milk<br><br>_____ Yes _____ No                            | B. Potatoes<br>Fruit cup<br>Milk<br><br>_____ Yes _____ No        |
| C. Raisin toast (one slice)<br>Bacon<br>Sliced peaches<br>Milk<br><br>_____ Yes _____ No | D. Whole bagel<br>Orange wedges<br>Milk<br><br>_____ Yes _____ No |

4. Are there portion sizes that must be served for breakfast in order for a meal to be reimbursable?

\_\_\_\_\_ Yes \_\_\_\_\_ No

5. How many food items must a traditional school breakfast contain?

- A. Three
- B. Four
- C. Five
- D. None of the Above

# BREAKFAST OFFER VERSUS SERVE

1. Determine if the following meals are reimbursable under Offer versus Serve.  
(Assume that all meals contain the appropriate serving sizes)

A. One large egg  
Milk

\_\_\_\_\_ Yes \_\_\_\_\_ No

B. Raisin toast (2 slices)  
Milk

\_\_\_\_\_ Yes \_\_\_\_\_ No

C. One pancake  
Apple wedges  
Orange slices

\_\_\_\_\_ Yes \_\_\_\_\_ No

D. Oatmeal  
Grape juice  
Milk

\_\_\_\_\_ Yes \_\_\_\_\_ No

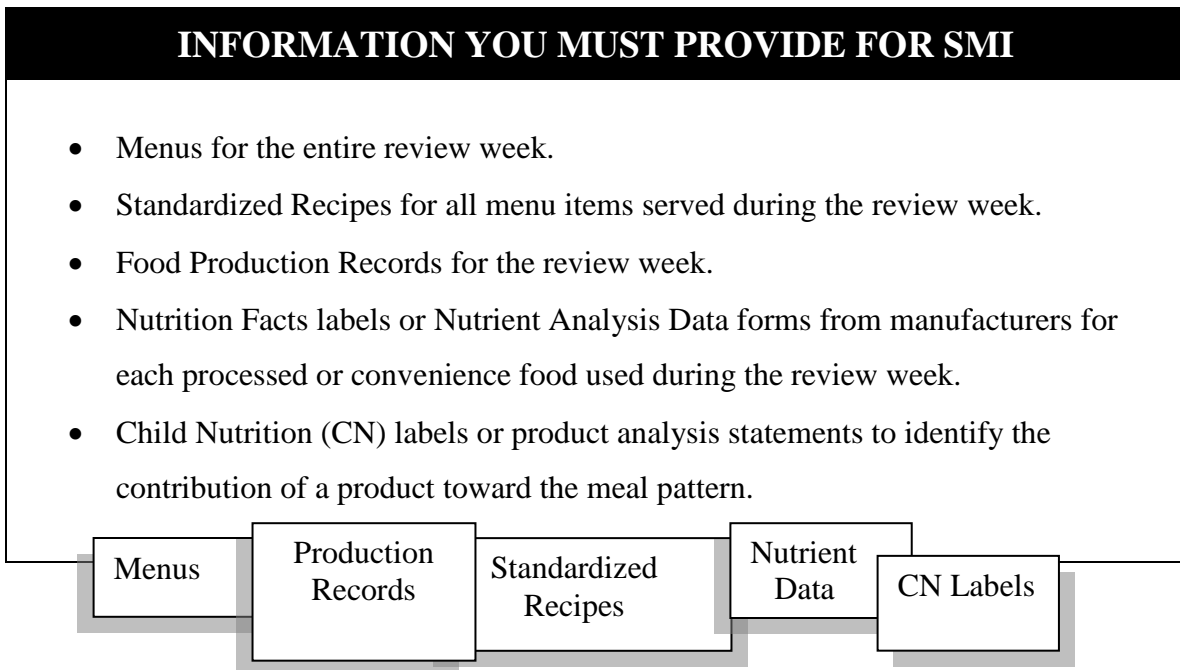
2. At the option of the school district, may students be permitted to decline one item from the four food items offered?

\_\_\_\_\_ Yes \_\_\_\_\_ No

# THE SMI REVIEW

*This information provides a brief overview of what to expect when a school is selected for a School Meals Initiative (SMI) review.*

The State Agency is required to conduct a SMI review in each Local Education Agency once every five years. At a minimum, the State Agency must review one school site for each type of menu planning system that is used within the Local Education Agency. In the school selected for the SMI review, all of the SMI “souvenirs” come into play! A five-day period (one week) will be selected as the review week. In order to conduct the SMI review, the State Agency will need to review the collection of all required information.



The State Agency will conduct a nutrient analysis for districts using Enhanced or Traditional Food Based Menu Planning.

An on-site evaluation will also be made to determine if the recorded information and daily practices are consistent. Based on the results of the nutrient analysis and on-site evaluation, recommendations will be developed to bring menus into compliance with nutrient standards.

Never feel discouraged about a mistake or oversight that may be recognized during the SMI review. Value any errors as an opportunity to learn more. The reviewer will help solve problems and answer any questions.

MEETING  
COMPLIANCE  
FOR  
SMI

# MENUS

## **MENU PLANNING**

No matter what menu planning systems are used, begin by putting food into a plan that will result in a menu that is nutritious and appeals to students. These general points will be important for success in Food Based Menu Planning.

## **DRIVING FORCE**

The menu is the basis for all food service program activities. The menu drives the planning, purchasing, production, service, cleanup, and nutrition education functions. Menu planning also provides an opportunity for nutrition education and for involving children, parents, and teachers in the program.

## **MANAGEMENT TOOL**

Successful management of the National School Lunch and School Breakfast Programs begins with menu planning. The menu is the management tool that controls these program functions.

The menu must be planned to be in compliance with federal regulations and program requirements. The menu determines the nutrient content of the meal and the meal acceptability. The acceptability influences the participation rate. The menu also determines the food cost, and its complexity affects labor costs.

The menu controls what food production and purchasing must be done to produce the menu. Food production determines how the work is scheduled. The food to be produced determines the equipment use and needs. Employee training needs are determined by the foods on the menu and how they are prepared and served. The menu plan sets the food service program in motion and controls many of its functions.

## Notes

## **KNOWLEDGE REQUIRED**

The quality of the meals and the success of the program depend on the knowledge and skills of the menu planner. Menu planners need to know:

- Program purposes and goals, requirements and recommendations.
- Students' food preferences.
- Food cost and the amount of money available.
- Food available for the menu planning period.

## **CYCLE MENUS**

Using cycle menus developed for breakfast and lunch for any of the menu planning systems will save time and increase efficiency. A cycle menu will not only save time for the age or grade group for which it is planned. With changes in portion size, the cycle may be adjusted for use with other age or grade groups.

To avoid repetition in a cycle menu, changes may be made to incorporate seasonal variations and special events into the cycle. Changes also allow USDA commodities to be included. Using a cycle menu simplifies menu planning.

Also, using a cycle menu can save time on these preliminary steps from month to month, leaving more time for training staff and promoting healthful changes.

## **VARIETY**

Variety in the menu encourages consumption of healthy foods. Choices in meal components should be provided whenever possible. Offer students a selection of foods and types of milk from which to choose.

To increase food consumption and participation in schools that do not offer choices each day, no one meat or form of meat should be served more than three times in a week. ("Form of meat" refers to ground, sliced, pieces, etc.)

# Notes

# THE ABCs OF MENU PLANNING

## 1. Collect Menu Resources

There are many menu resources available to menu planners, including old menus. In addition, recipe files such as the *USDA Quantity Recipes for School Meals*, the *USDA Menu Planning Guide* and the *Tool Kit for Healthy School Meals* will provide ideas.

## 2. Select the Age or Grade Group

First select the grade or age group to plan for based on the grades in the school or group of schools for which the menu is planned. The age or grade group selected will determine the type of menu items and the appropriate portion sizes. Later, the portion sizes may be adjusted for other age or grade groups, or as needed to meet program requirements.

## 3. Determine the Number of Choices

Determine the number of choices that will be offered for each menu item. Providing choices and variety is an important concept whether planning the meat/meat alternate or vegetables/fruits.

The number of choices offered in each category depends on the operation. Look for a balance in cost, nutrients and equipment usage, as well as the labor needed to prepare each item. Start by adding one or more meat/meat alternates and then adding a selection of vegetables/fruits that compliment the meat/meat alternate choices.

Offering choices has an added benefit of allowing the introduction of new foods without the usual drop in participation. Letting students “take a taste” of a new menu offering is the ideal way to introduce students to a wider variety of menu selections.

Offering choices at sites where Offer versus Serve is in place encourages students to select food they intend to eat. Offering choices does not need to be extensive: even two choices give students the opportunity to express their individual preference and increase the likelihood that a full meal will be selected.

## Notes

## Notes

#### **4. Select the meat/meat alternate for lunch or main course for breakfast.**

The meat/meat alternate usually sets the scene for the rest of the lunch menu and sometimes for the breakfast menu. It may be the determining factor as to whether students elect to eat that day. Therefore, careful planning of the meat/meat alternate or main dish can improve participation (see Magic Menu Planner on page 32).

#### **5. Select the other food items.**

Select other menu items that complement the meat/meat alternate.

##### **Contrast**

This is the opportunity to add color and texture as the other menu items are planned for the meal. To add color, use bright fruits and vegetables or a colorful dessert item. To add texture, use crisp, firm foods.

Examples:

- Use a green salad or raw vegetable sticks with a soft burrito
- Use a hard roll or a slice of whole grain bread with spaghetti and sauce.

##### **Balance**

Balance in “weight” and “flavor” can also be achieved as the other menu items are added. If the first menu item planned is heavy, plan a light vegetable or dessert such as fresh fruit. If the meat/meat alternate is light, add a higher calorie food such as a healthy baked dessert or a cooked vegetable such as potatoes or corn.

To balance flavor, use a combination of mild and strong flavored foods. Too many foods with strong flavors in the same meal may result in an unacceptable meal.

##### **Variety in Shapes and Sizes**

Another opportunity for creating appealing menus is with shapes and sizes. Consider a meal with fish sticks, oven-baked French fries, carrot sticks and a banana. All of these foods have a similar shape. Presenting foods in several different shapes appeals to children: a baked chicken leg, potato rounds, carrot sticks and a watermelon wedge.

## Notes

### **Color**

The last but perhaps one of the most important considerations is color. Consider the menu with the fish sticks. Not only was every menu item the same shape, they were also similar in color. It helps to use at least two colorful foods in each menu. Vegetables and fruits are a natural way to add eye appeal. It helps to add a bright colored food to one with little or no color. For example, add a slice of tomato to potato salad or put a fresh grape or strawberry on a dish of diced pears or peaches. A dash of cinnamon or paprika can be used to achieve the same effect.

### **6. Provide fluid milk choices**

At least two lowfat milk options should be available every day.

### **7. Evaluate**

The State Agency will complete a nutrient analysis during the SMI review.

## **PUBLISHING MENUS**

The menu is the number one sales tool for the school food service. Menus are presented in many different forms, ranging from hand written photocopied handouts to highly decorated menu boards.

When time and energy is invested to develop a creative, healthy menu, take the next step to market it through all possible avenues. Hand out attractive take home menus, contribute a menu column to the local newspaper, and add the menu to a nutrition column in the school newsletter. Create attention-grabbing menu boards and broadcast menus over the radio.

The positive feed back and success experienced with this extra effort will make the journey to Healthy School Meals a fun adventure!



# MAGIC MENU PLANNER

The *Magic Menu Planner* is a tool for managers to use when planning menus. All of the *USDA Quantity Recipes* for main dishes from the 1988 recipes and the 1995 *Tool Kit* recipes have been grouped according to the amount of fat grams per serving. Crediting information for main dishes that also provide grains/breads has also been provided for each recipe.

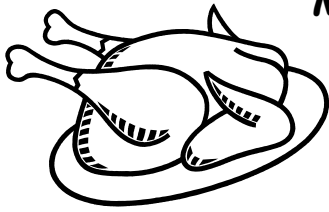
## MAGIC MENU PLANNER MAIN DISH GROUPS

Main dish recipes are grouped based on the total grams of fat per serving.

<b>Anytime Foods</b> (daily)	10 grams of fat or less per serving
<b>Sometimes Foods</b> (once or twice a week)	11 grams to 16 grams of fat per serving
<b>Occasional Foods</b> (two to three times a month)	17 grams of fat or more per serving

The Groups of main dish foods in the *Magic Menu Planner* can be used for menu planning and for menu substitutions. When substituting one main dish for another, select a main dish from the same group: Anytime, Sometimes, or Occasional Foods. Making main dish substitutions within the same group will help to keep within the nutrient goal for fat for a specific lunch menu. In addition to consideration of the total amount of fat in a main dish, think about the number of servings of grains/breads provided by a main dish. Use the information in the Magic Menu Planner to decide on substitute main dishes that provide the same number or more grains/breads equivalents. This will help meet the weekly grains/breads requirement without having to change several menu items.

The nutrient analysis for total grams of fat provided on USDA recipes (1995 and 1998) was used for the *Magic Menu Planner*. The total grams of fat were rounded to the nearest whole number. The serving size of meat/meat alternate is two ounces unless otherwise indicated. The grains/breads credible amount is also provided from information of the USDA, Food and Consumer Service memo of 8/13/96, # 61-96 and the most current publication of USDA Recipes for Schools.



# Magic Menu Planner for School Menus

## • Main Dishes and Meat/Meat Alternate •

Anytime Foods – 10 grams of fat or less per serving

	Source/Recipe No/Yr	Fat Grams <u>Per Serving</u>	Grains/Breads <u>Per Serving</u>
Arroz Con Queso (Rice with Cheese)	USDA D-48/04	7 grams	¾ svg
Baked Beans	USDA I-6/04	1 gram	
Baked Cajun Fish	USDA D-46/04	8 grams	
Baked Fish Scandia	USDA D-47/04	7 grams	
Barbecue Beef or Pork on a Roll	USDA F-2/04	7 grams	2 svg
Beef Stew	USDA D-14/04	8 grams	
Breakfast Burrito with Salsa	USDA J-2/04	9 grams	1 ½ svg
<b>Burritos</b>			
Bean Variation	USDA D-12a/04	8 grams	1 svg
Beef or Pork (canned meat)	USDA D-12b/04	10 grams	1 svg
Cream of Chicken Soup (1 oz meat)	USDA H-6/04	10 grams	
Chicken Fajitas	USDA D-40/04	6 grams	1 svg
Chicken and Turkey Salad	USDA E-5/04	7 grams	
Chicken or Turkey a la King	USDA D-16/04	8 grams	
Chicken or Turkey and Noodles	USDA D-17/04	8 grams	1 svg
Chicken or Turkey Chop Suey	USDA D-18/04	5 grams	
Chow Mein Variation	USDA D-18a/88	Not available	
Chicken Tomato Bake (1 oz meat)	USDA D-41/04	3 grams	1 svg
<b>Chili</b>			
Con Carne with Beans	USDA D-20/04	9 grams	
Without Beans Variation	USDA D-20A/88	Not available	
Vegetable Chili	USDA D-49/04	7 grams	¼ svg
Egg Salad Sandwich	USDA F-3/04	9 grams	2 svg
Honey-Lemon Chicken	USDA D-44/04	6 grams	
<b>Lasagna</b>			
Ground Beef	USDA D-25/04	9 grams	¾ svg
Ground Pork & Ground Beef	USDA D-25a/04	9 grams	¾ svg
Vegetable	USDA D-50/95	10 grams	1 ¼ svg
Meat Loaf	USDA D-27/04	10 grams	½ svg
Meat Ball Variation	USDA D-27a/04	10 grams	
New Macaroni and Cheese (1 oz meat)	USDA D-51/04	10 grams	1 ½ svg
<b>Pizza</b>			

Cheese Topping	USDA D-30/04	8 grams	2 svg
Ground Beef Topping	USDA D-31/04	10 grams	2 svg
Ground Pork Topping	USDA D031/04	10 grams	2 svg
Quiche with Self-Forming Crust	USDA D-32/04	6 grams	½ svg
Salisbury Steak	USDA D-33/04	10 grams	
Scrambled Eggs	USDA D-34/04	5 grams	
Stir-Fry, Chicken	USDA D-39/04	9 grams	
Stromboli	USDA F-6/04	6 grams	1 ½ svg
Sweet-and-Sour Pork	USDA D-36/04	7 grams	
Tacos			
Bean Variation	USDA D-13a/04	9 grams	1 svg
Tamale Pie			
Beef and Bean Variation	USDA D-15a/04	9 grams	1 svg
Chicken or Turkey Variation	USDA D-15b/04	9 grams	1 svg
Tuna and Noodles	USDA D-37/04	6 grams	1 ¼ svg
Tuna Salad Sandwich	USDA F-8/04	7 grams	2 svg
Vegetable Wrap	USDA F-9/04	9 grams	2 svg

## **Magic Menu Planner for School Menus**

### **• Main Dishes and Meat/Meat Alternate •**

Sometimes Foods—11 grams up to 16 grams of fat per serving

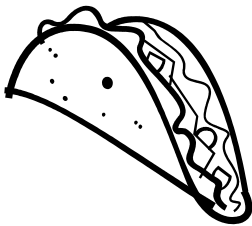
	Source/Recipe No/Yr	<u>Fat Grams Per Serving</u>	<u>Grains/Breads Per Serving</u>
Barbecued Chicken	USDA D-11/04	13 grams	
Beef Shepherd's Pie	USDA D-43/04	13 grams	
Beef Taco Pie	USDA D-45/04	13 grams	1 ¼ svg
Bean Variation	USDA D-45a/04	13 grams	1 ¼ svg
Burritos, Beef or Pork	USDA D-12/04	12 grams	1 ½ svg
Chicken Tetrazzini	USDA D-42/04	13 grams	½ svg
Country Fried Steak	USDA D-21/04	13 grams	½ svg
Egg Salad Sandwich	USDA F-3/04	14 grams	2 svg
Ground Beef and Macaroni			
Mexican Seasoning	USDA D-22/04	11 grams	1 svg
Italian Seasoning	USDA D-22a/88	Not available	
Ground Beef and Spanish Rice	USDA D-23/04	11grams	1 svg
Ground Beef Stroganoff	USDA D-24/04	15 grams	
Gyro (see Vegetable Wrap in Anytime Foods section)			

Macaroni and Cheese	USDA D-26/04	12 grams	1 svg
Oven Fried Chicken	USDA D-29/88	14 grams	½ svg
Nachos with Ground Beef	USDA D-28/04	15 grams	1 svg
New Macaroni and Cheese (1 oz meat)	USDA D-51/04	14 grams	1 svg
Pizzaburger on Roll	USDA F-4/04	12grams	2 svg
Sloppy Joe on Roll	USDA F-5/04	13 grams	2 svg
Spaghetti and Meat Sauce	USDA D-35/06	11 grams	1 svg
Ground Beef & Ground Pork	USDA D-35a/88	Not Available	
Stir-Fry, Beef Variation	USDA D-39a/04	11 grams	
Stir-Fry, Pork Variation	USDA D-39b/06	13 grams	
Tamale Pie			
Beef	USDA D-15/04	13 grams	1 svg
Toasted Cheese Sandwich	USDA F-7/04	12 grams	2 svg
Turkey and Dressing Supreme	USDA D-38/04	13 grams	1 svg
Tacos			
Beef or Pork (canned meat)	USDA D-13b/04	12 grams	1 svg
Chicken or Turkey	USDA D-13c/04	12 grams	1 svg
Rice with Cheese (see Arroz con Queso)	USDA D-48/04	12 grams	¾ svg
Salisbury Steak	USDA D-33/88	12 grams	¼ svg

## Magic Menu Planner for School Menus

### • Main Dishes and Meat/Meat Alternate •

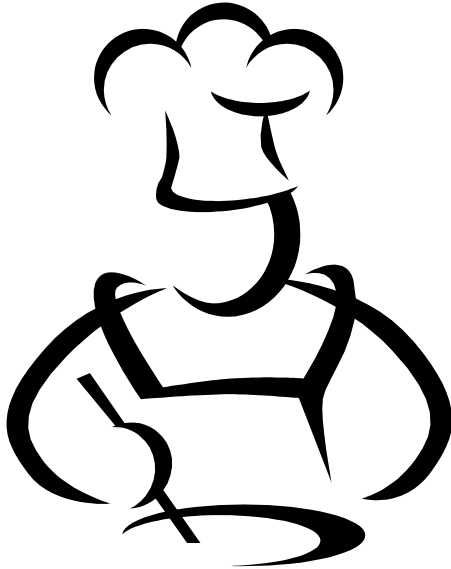
Occasional Foods—17 grams of fat per serving or more



	Source/Recipe No./Yr	<u>Fat Grams Per Serving</u>	<u>Grains/Breads Per Serving</u>
Chicken or Turkey Pot Pie	USDA D-19/88	18 grams	1 ½ svg
Oven Fried Chicken	USDA D-29/04	20 grams	
Tacos			
Beef or Pork	USDA D-13/88	17 grams	¾ svg

## STANDARDIZED RECIPES

HEY, IF IT TURNS OUT GOOD, HOW WILL WE  
MAKE IT AGAIN??



### WHY AND WHEN TO STANDARDIZE

Standardized recipes are an important part of any well-managed food service program. They are crucial in calculating the nutrient value of meals and producing an accurate and valid nutrient analysis.

A standardized recipe must be developed for all menu items having:

- More than one ingredient
- Any preparation instructions

Examples include:

- Purchased burrito
- Seasoned vegetables
- Baked, seasoned chicken
- Mixed fresh fruit cup

## Notes

### **DEFINITION OF A STANDARDIZED RECIPE**

A recipe which is produced for a specific school district and which is designed to assure the same number and size of portions, the same taste, food quality, cost and nutritional content **EVERY** time the recipe is prepared – **REGARDLESS** of who prepares the product.

In other words, it is a tool used to ensure consistent quality and cost of a product in a production kitchen.

### **BENEFITS OF STANDARDIZING**

Besides making it possible to have an accurate and valid nutritional analysis, a standardized recipe will benefit the Child Nutrition Program in ten ways:

1. Assures products provide the required food components.
2. Assures products provide the nutrient analysis planned by the district.
3. Better quality control and consistency.
4. Portion control.
5. Eliminates waste and guesswork.
6. Fewer cases of “running out” and having to make substitutions.

### ***WHEN FOOD SUBSTITUTIONS ARE MADE, THE NUTRIENT COMPOSITION OF THE MEAL CHANGES.***

7. Improves cost control.
8. Provides better inventory control.
9. Time savings in food preparation.
10. Reduces training and supervision.

**REMEMBER THE GOAL: ANYONE WITH BASIC COOKING SKILLS CAN PRODUCE CONSISTENT RESULTS WITH A STANDARDIZED RECIPE.**

## **DESCRIPTION OF A STANDARDIZED RECIPE**

A standardized recipe is a recipe that is produced for a specific school district. The recipes may need modification to adapt them to a specific kitchen, depending on the equipment available. The ingredients **MUST** stay the same. The assembly and preparation methods used may vary. Standardized recipes have been tested and retested until the consistency is satisfactory in **BOTH** quality and yield.

In other words a standardized recipe is consistent in:

- **Yield**
- **Quantity**
- **Taste**
- **Cost**
- **Quality**
- **Nutrients**
- **Preparation Time**

## **BACK TO THE BASICS**

A recipe calls for a 'pinch of salt'. How big is a pinch of salt? How big would it be in a recipe for four? If the recipe is extended from 4 to 400, how big would a pinch of salt be? Some recipes call for a pat of butter. Are all pats the same size?

Everyone must know and practice accurate measurement techniques to produce standardized, consistent, quality foods. Students react negatively to products that are inconsistent.

Negative customer reaction may mean loss of participation and revenue. If it continues to a significant extent, staffing may need to be reduced. The opposite may be true.

If food quality is outstanding, students will want to eat in the school cafeteria, and the workload may increase so much that additional hours, or staff, are needed.

## **Notes**

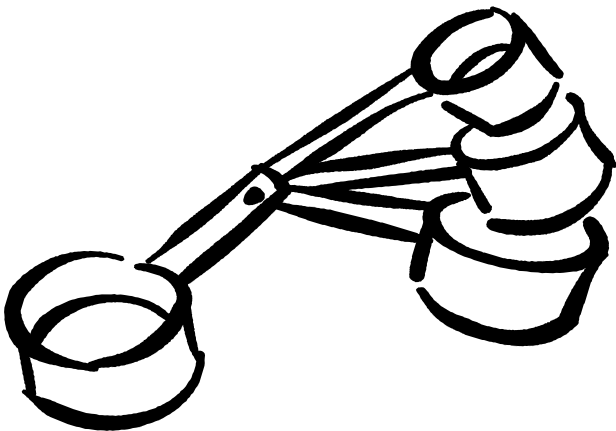
In quantity food service, everyone assigned to produce a recipe is responsible for accurately measuring all ingredients each time it is prepared. A measurement error could cause a costly and time consuming mistake. How would you feel if you were responsible for ruining 400 servings of the students favorite pizza, the serving line is opening in 10 minutes and there is no way to make more?

### **WEIGHING VERSUS MEASURING**

Weighing is the preferred method to measure ingredients for standardized quantity recipes. (Unless in small amounts such as: tablespoon, cup, etc.) It decreases the overall time spent in preparing a recipe and is a much more efficient, accurate, and productive method.

*The following page contains a chart for converting measures to weights.*

**PROPER PORTIONING OF COOKED PRODUCTS IS IMPORTANT, AND PART OF ACCURATE MEASURING!**



## **Notes**

## COMMON CONVERSIONS FOR WEIGHT AND VOLUME

### CONVERT WEIGHT

<b>Weight</b>	<b>Formula</b>
Pounds (lb) to ounces (oz)	Multiply the number of pounds by 16
Ounces (oz) to pounds (lb)	Divide the number of ounces by 16

### CONVERT VOLUME

<b>Volume</b>	<b>Formula</b>
Gallons (gal) to quarts (qt)	Multiply the number of gallons by 4
Quarts (qt) to gallons (gal)	Divide the number of quarts by 4
Quarts (qt) to cups (c)	Multiply the number of quarts by 4
Cups (c) to quarts (qt)	Divide the number of cups by 4
Cups (c) to gallons (gal)	Divide the number of cups by 16
Tablespoons (Tbsp) to cups (c)	Divide number of tablespoons by 16
Tablespoons (Tbsp) to teaspoons	Multiply the number of tablespoons by 3
Teaspoons (tsp) to tablespoons (Tbsp)	
	Divide the number of teaspoons by 3

## COMPONENTS OF STANDARDIZED RECIPES INCLUDE:

### Required Components

1. Name of food item should appear clearly at the top.
2. Category (e.g., main dish, vegetable, grain, etc) and optional recipe number.
3. Ingredients by weight for dry ingredients and by volume for liquids. Forms of ingredients (chopped, minced, hot or cold, etc.) must also be provided so cooks know how to prepare ingredients.
4. Directions or instructions for putting the ingredients together to make the dish. The times required for mixing, blending, etc.
5. Description of how the product should look during the mixing and how it should look when it's done.
6. Consistent abbreviations and terms provide workers with a "key". Try to use conventional abbreviations to the maximum extent possible.
7. Cooking and baking temperatures and times. Be sure to differentiate between conventional or convection oven if both would be available.
8. Include bowl or pan sizes, equipment to use. Specify the weight or volume of food to be put into each pan.
9. Portion size
10. Serving utensils (ladle, spoodle, disher, etc.)
11. Yield (number of portions, gallons, pans, etc)
12. Special instructions (refrigeration, adding, liquid to thin, etc, pre-preparation required.)

## Notes

# Notes

**THE GOAL:** Each recipe should be written clearly enough that an inexperienced person could make the dish successfully without having to ask questions.

**Optional components might include:**

1. Cost information (not encouraged since prices change so much, unless computer generated and tied into inventory pricing)
2. Pre-preparation information (i.e. thawing)
3. Standard of quality expected
4. Time required to produce recipe

**ABBREVIATIONS AND DEFINITIONS OF COOKING TERMS**

Imagine that the manager gave a recipe for angel food cake to a new employee and said to prepare 500 servings. When the cakes came out of the oven, they were flat.

The manager couldn't understand why that happened since a standardized recipe had been used. The employee related exactly how the cakes were made, step by step. All had gone well until the instructions said to fold the stiffly beaten egg whites into the batter. Instead, the employee poured the batter into the egg whites and, still using the wire whip, turned the mixer on speed 3. This action took all the air out of the egg whites, causing the cake to fall. Two mistakes were made. The manager assumed the employee understood all the terms in the recipe, and the employee did not follow the recipe exactly as it was written.

Misunderstandings about common terms used in quantity food service can result in poor food quality. Since recipe terms and instructions are included in standardized recipes, we need to define terms to prevent disaster.

*The next page contains terms commonly used in quantity recipes.*

# COOKING TERMS AND ABBREVIATIONS

Terms Used to Describe Oven Temperatures		Glossary of Terms for Processes and Methods																																	
Very slow oven	250 and 275 °F	Bake	To cook by dry heat, usually in an oven. A suitable cooking method for meat, bread, and many other foods.	Broil	To cook by direct heat from a flame, electric unit, or glowing coals; a suitable cooking method for tender meat cuts																														
Slow oven	300 and 325 °F			Brown	To cook food, generally meat, until it is uniformly brown on all sides.																														
Moderate oven	350 and 375 °F			Chill	To cool a food with ice water or refrigeration.																														
Hot oven	400 and 425 °F			Chop	To cut food into small pieces with a knife or chopping equipment.																														
Very hot oven	450 and 475 °F			Combine	To mix two or more ingredients together.																														
Extremely hot oven	500 and 525 °F			Cream	To work foods (such as shortening and sugar) together with a spoon or mixer, until soft and fluffy or until thoroughly blended.																														
<p>Always preheat the oven to the temperature specified in the recipe.</p> <p>Note: Calibrate ovens regularly and check them often with an oven thermometer to make sure preset temperatures are being reached.</p> <p><b>Abbreviations</b></p> <table style="width: 100%; border: none;"> <tr><td>Tsp.</td><td>Teaspoon</td></tr> <tr><td>Tbsp.</td><td>Tablespoon</td></tr> <tr><td>Oz.</td><td>Ounce</td></tr> <tr><td>Fl. oz.</td><td>Fluid ounce</td></tr> <tr><td>Lb. or #</td><td>Pound</td></tr> <tr><td>Pt.</td><td>Pint</td></tr> <tr><td>Qt.</td><td>Quart</td></tr> <tr><td>Gal.</td><td>Gallon</td></tr> <tr><td>Wt.</td><td>Weight</td></tr> <tr><td>No.</td><td>Number</td></tr> <tr><td>Pkg.</td><td>Package</td></tr> <tr><td>°F</td><td>Degree Fahrenheit</td></tr> <tr><td>°C</td><td>Degree Celsius</td></tr> <tr><td>x</td><td>Multiply</td></tr> <tr><td>÷</td><td>Divide</td></tr> </table>		Tsp.	Teaspoon	Tbsp.	Tablespoon	Oz.	Ounce	Fl. oz.	Fluid ounce	Lb. or #	Pound	Pt.	Pint	Qt.	Quart	Gal.	Gallon	Wt.	Weight	No.	Number	Pkg.	Package	°F	Degree Fahrenheit	°C	Degree Celsius	x	Multiply	÷	Divide	Barbecue	To roast or broil a food which is usually brushed with a highly seasoned sauce.	Crumb	To cover a food with bread or cracker crumbs or to break food, such as bread into fine pieces.
Tsp.	Teaspoon																																		
Tbsp.	Tablespoon																																		
Oz.	Ounce																																		
Fl. oz.	Fluid ounce																																		
Lb. or #	Pound																																		
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Pkg.	Package																																		
°F	Degree Fahrenheit																																		
°C	Degree Celsius																																		
x	Multiply																																		
÷	Divide																																		
		Baste	To spoon liquids, sauce, or meat juice over food to keep it moist during cooking and to add flavor.	Cut in	To mix solid fat, such as butter or margarine, into dry ingredients with a cutting motion so that the fat remains in small particles.																														
		Beat	To vigorously mix by hand or with mixing equipment to make the mixture light, fluffy, or smooth.	Dice	To cut into small cubes with knife or chopping equipment																														
		Blend	To mix two or more ingredients.																																
		Boil	To cook rapidly in water or liquid so that bubbles rise and break on the surface.																																
		Braise	To cook slowly in a covered container with a small amount of liquid or water. A suitable cooking method for less tender meat cuts.																																
		Bread	To coat food with bread crumbs, cracker crumbs, or flour before cooking.																																

# COOKING TERMS AND ABBREVIATIONS

Dredge	To coat a food by dipping it in crumbs, flour, cornmeal, sugar, or other coatings.	Marinate	To soak a food, such as meat or vegetables, for a period of time in a sauce with herbs, spices, and condiments to enrich its flavor and/or to tenderize.	Roast	To cook by dry heat, uncovered in an oven. A suitable cooking method for tender meat roasts.
Fold	To combine several food ingredients into a mixture by gently turning the mixture, with a minimum of motions, until the ingredients are blended.	Melt	To turn a solid food into a liquid by heating.	Scald	To heat a liquid, such as milk, to a temperature just below the boiling point. Tiny bubbles will appear around the edge of the pan.
Fry	To cook in fat over heat in a skillet, pan, griddle, or in a fryer	Mince	To finely chop food, such as garlic, into very small pieces.	Shred	To cut or grate foods into narrow strips.
Glaze	To coat with a mixture to produce a glossy appearance on the food.	Mix	To blend or combine two or more foods or ingredients.	Simmer	To cook in a liquid that is kept just below the boiling point.
Grill	To cook uncovered over direct heat on a griddle or pan, removing fat as it accumulates.	Parboil	To boil in water briefly as a preliminary cooking step. May be used with vegetables and meat.	Slice	To cut a food with a knife or slicing equipment.
Grind	To chop or pulverize food, such as meat, into small particles by using a food chopping device or meat grinder	Pare	To thinly trim off the outer covering or skin of a food such as potatoes.	Steam	To cook food in steam generated by boiling water or in steam equipment.
Knead	To work with dough, such as bread, by pressing, folding, and stretching to develop the dough structure.	Peel	To strip off the outer covering of a food, such as oranges.	Stir	To mix ingredients with a circular motion without beating.
Leaven	To cause food, such as bread, to rise and increase volume by adding a leavening agent, such as yeast or baking powder.	Punch down	To remove air bubbles from risen yeast dough by pushing the dough down with the fist.	Whip	To rapidly beat a food, such as eggs or cream, incorporating air to lighten the mixture and to increase its volume. Usually whipping is done with a whisk, fork, or mixing equipment.
		Reconstitute	To bring back a concentrated food, such as a juice concentrate or a dry food, such as nonfat dry milk, to the original state by adding liquid.		
		Rehydrate	To add fluids back into a dried food such as dehydrated onions.		

## DEVELOP A RECIPE FORM TO USE

The advantage of a standardized recipe form is that employees become familiar with the form, and learn where to look for key information.

### Descriptive/Action Step/Block Form

This is the best form to use for quantity food production. This is the format USDA uses. Ingredients are listed in the order used on the left side and the procedure for each ingredient is provided on the right side. Ingredients are grouped with procedures and divided by solid lines to make the recipe easier to read – (could separate by blank lines). This form also makes it easier for the cook to identify what to do with each ingredient and the correct preparation sequence. One particular note is that ingredients requiring advance preparation would be listed first so they are ready when needed later in the actual preparation.

### Descriptive/Action Step/Block Example

Angel Biscuits: 100 portions – 1 each			
Ingredients	Measure	Weight	Method
Yeast	4 Pkg		1. Dissolve yeast in warm water
Water, warm	1 cup + 4 Tbsp	6 ½ lb.	
Flour		6 ½ lb.	2. Mix flour, baking powder, baking soda, sugar and salt together.
Baking Power	6 ½ Tbsp		
Baking Soda	4 Tbsp		
Sugar	½ cup		
Salt	2 tsp		
Shortening		2 lb.	3. Cut in shortening
Buttermilk	½ gal		4. Add Buttermilk to yeast mixture and combine with flour mixture. Knead slightly. Roll out in one-half inch thickness and cut with floured, two-inch biscuit cutter.
Butter, melted	½ cup		5. Brush one 18 x 26 inch pan with butter. Let rise slightly overnight in refrigerator.
			6. Bake in 400°F conventional oven for 30 minutes
			<b>OR</b>
			Bake in 350°F convection oven for 15 minutes
			7. Serve one for 1 grains/breads equivalent.

**REMINDERS:** Directions must be simple, clear, and easy to understand. Use as few words as possible. Consider the reading level of staff when writing directions. To make it easier to follow the recipe, list ingredients separately for each time they are used. For example, if eggs are added at different times in different amounts when making a dessert, list them separately. Using this format will simplify both direction writing and food preparation.

# STANDARDIZED RECIPE

Recipe Name \_\_\_\_\_

Recipe Number: \_\_\_\_\_

Number of Servings: \_\_\_\_\_

INGREDIENTS	MEASURE		PREPARATION DIRECTIONS
List in order used	Weight	Volume	
<p>Yield: _____ (weight or volume)</p> <p>Portion Size: _____</p>	<p>Additional Information: _____</p> <p>Meal Pattern Contribution: _____</p> <p style="text-align: right;">(Food Based Menu Planning Only)</p>		

<b>INGREDIENTS</b>	<b>MEASURE</b>		<b>PREPARATION DIRECTIONS</b>
List in order used	Weight	Volume	

## STANDARDIZED RECIPE COMMERCIALY PREPARED PRODUCTS

Product Name: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

### MANUFACTURER'S NUTRIENT SPECIFICATIONS

Nutrient Submission Form  Yes  No

Manufacturer's Nutrient Label Attached  Yes  No

Other  Please Specify:

### PREPARATION DIRECTIONS

Equipment Type/Size and Cooking Time/Temperature

Yield: \_\_\_\_\_

(weight or volume)

Meal Pattern Contribution: \_\_\_\_\_

More Information: \_\_\_\_\_

Portion Size: \_\_\_\_\_

# PUTTING IT ALL TOGETHER: CREATING A RECIPE BOOK

As recipes are standardized, the kitchen's recipe book is built. A recipe book is a binder for routine reference, containing one page for each recipe and every food item used and every menu item made, including condiments, milk, jellies, crackers, etc.

The recipe book is the master blueprint for all food items used and all menu items served in all meals prepared for students. It is a guide to what can be used in creating menus. If there is no recipe then the item cannot be part of the menu. If a new menu item is desired, then a recipe must be created.

Here is an example of how to organize a recipe book:

## Meat/Meat Alternate

BBQ Wrap  
Veggie Pizza  
Chicken Nuggets  
Deli Sandwich

## Fruits and Vegetables

Apples  
Orange Wedges  
Broccoli Florets  
Canned Commodity Peaches  
Baby Carrots  
Celery Sticks

## Grains/Breads

Whole Wheat Roll  
Saltine Crackers  
Sliced Whole Grain Bread

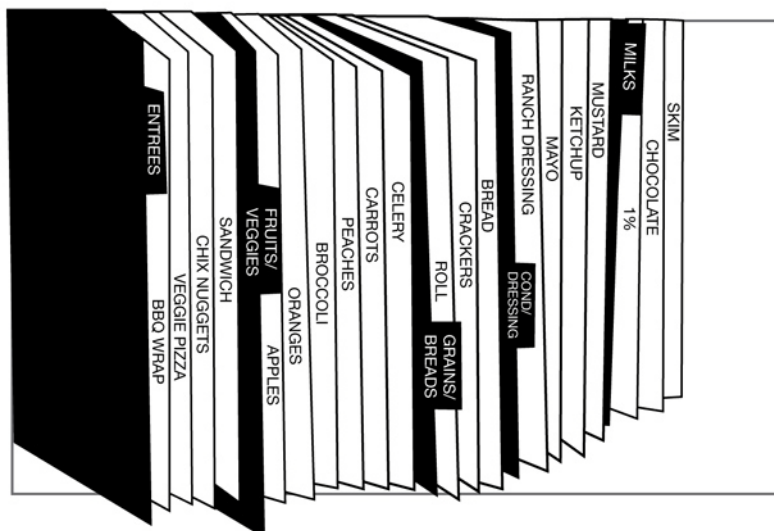
## Condiments

Low-Fat Ranch Dressing  
Commodity Mayo  
Ketchup  
Mustard

## Milk

1% Unflavored  
Non-Fat Chocolate  
Skim

The recipe book should have a page for every item on the menu – standardized recipes and single food items. Below is an example of how a recipe book can be organized for the above menu.



# GRAINS/BREADS FOR FOOD BASED MENU PLANNING ALTERNATIVES IN CHILD NUTRITION PROGRAMS<sup>1</sup>

GROUP A	MINIMUM SERVING SIZE FOR GROUP A
Bread type coating Bread sticks (hard) Chow mein noodles Crackers (saltines and snack crackers) Croutons Pretzels (hard) Stuffing (dry) Note: weights apply to bread in stuffing	1 serving = 20 gm or 0.7 oz. ¾ serving = 15 gm or 0.5 oz. ½ serving = 10 gm or 0.4 oz. ¼ serving = 5 gm or 0.2 oz.
GROUP B	MINIMUM SERVING SIZE FOR GROUP B
Bagels Batter type coating Biscuits Breads (white, wheat, whole wheat, French, Italian) Buns (hamburger and hotdog) Crackers (graham crackers-all shapes, animal crackers) Egg roll skins English muffins Pita bread (white, wheat, whole wheat) Pizza crust Pretzels (soft) Rolls (white, wheat, whole wheat, potato) Tortillas (wheat or corn) Tortilla chips (wheat or corn) Taco shells	1 serving = 25 gm or 0.9 oz. ¾ serving = 19 gm or 0.7 oz. ½ serving = 13 gm or 0.5 oz. ¼ serving = 6 gm or 0.2 oz.
GROUP C	MINIMUM SERVING SIZE FOR GROUP C
Cookies <sup>2</sup> (plain) Cornbread Corn muffins Croissants Pancakes Pie crust (dessert pies <sup>2</sup> , fruit turnovers <sup>3</sup> , and meat/meat alternate pies) Waffles	1 serving = 31 gm or 1.1 oz. ¾ serving = 23 gm or 0.8 oz. ½ serving = 16 gm or 0.6 oz. ¼ serving = 8 gm or 0.3 oz.

<sup>1</sup>Some of the following foods, or their accompaniments, may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

<sup>2</sup>Allowed only for desserts under the Enhanced Food Based Menu Planning alternative specified in 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

<sup>3</sup>Allowed for desserts under the Enhanced Food Based Menu Planning alternative specified in 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfast served under the SBP, SFSP, and CACFP.

GROUP D	MINIMUM SERVING SIZE FOR GROUP D
Doughnuts <sup>3</sup> (cake and yeast raised, unfrosted) Granola bars <sup>3</sup> (plain) Muffins (all, except corn) Sweet roll <sup>3</sup> (unfrosted) Toaster pastry <sup>3</sup> (unfrosted)	1 serving = 50 gm or 1.8 oz. ¾ serving = 38 gm or 1.3 oz. ½ serving = 25 gm or 0.9 oz. ¼ serving = 13 gm or 0.5 oz.
GROUP E	MINIMUM SERVING SIZE FOR GROUP E
Cookies <sup>2</sup> (with nuts, raisins, chocolate pieces, and/or fruit purees) Doughnuts <sup>3</sup> (cake and yeast raised, frosted or glazed) French toast Grain fruit bars <sup>3</sup> Granola bars <sup>3</sup> (with nuts, raisins, chocolate pieces, and/or fruit) Sweet rolls <sup>3</sup> (frosted) Toaster pastry <sup>3</sup> (frosted)	1 serving = 63 gm or 2.2 oz. ¾ serving = 47 gm or 1.7 oz. ½ serving = 31 gm or 1.1 oz. ¼ serving = 16 gm or 0.6 oz.
GROUP F	MINIMUM SERVING SIZE FOR GROUP F
Cake <sup>2</sup> (plain, unfrosted) Coffee cake <sup>3</sup>	1 serving = 75 gm or 2.7 oz. ¾ serving = 56 gm or 2.0 oz. ½ serving = 16 gm or 1.3 oz. ¼ serving = 19 gm or 0.7 oz.
GROUP G	MINIMUM SERVING SIZE FOR GROUP G
Brownies <sup>2</sup> (plain) Cake <sup>2</sup> (all varieties, frosted)	1 serving = 115 gm or 4.0 oz. ¾ serving = 86 gm or 3.0 oz. ½ serving = 58 gm or 2.0 oz. ¼ serving = 29 gm or 1.0 oz.
GROUP H	MINIMUM SERVING SIZE FOR GROUP H
Barley Breakfast cereals (cooked) <sup>4</sup> Bulgur or cracked wheat Macaroni (all shapes) Noodles (all varieties) Pasta (all shapes) Ravioli (noodle only) Rice (enriched white or brown)	1 serving = ½ cup cooked (or 25 gm dry)
GROUP I	MINIMUM SERVING SIZE FOR GROUP I
Ready to eat breakfast cereal (cold, dry) <sup>4</sup>	1 serving = ¾ cup or 1 oz., whichever is less

<sup>1</sup>Some of the following foods, or their accompaniments may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

<sup>2</sup>Allowed only for desserts under the Enhanced Food Based Menu Planning alternative specified in 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

<sup>3</sup>Allowed for desserts under the Enhanced Food Based Menu Planning alternative specified in 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfast served under the SBP, SFSP, and CACFP.

<sup>4</sup>Refer to program regulations for the appropriate serving size for supplements served to children aged 1 through 5 in the NSLP; breakfast served under the SBP; and meals served to children ages 1 through 5 and adult participants in the CACFP. Breakfast cereals are traditionally served as a breakfast menu item but may be served in meals other than breakfast.

# CALCULATE THE WEIGHT OF ONE SERVING OF GRAINS/BREADS

When the total weight of the grains/breads item is known, it is quite simple to calculate the weight of one serving using the following example:

1. Obtain the total weight of the package.
2. Obtain the total number of items in the package.
3. Divide the total weight of the package by the total number of items in the package to find the weight of one item.
4. Find the grains/breads group (A-I) that has the product listed.
5. Compare the calculated weight of one item to the weight of a minimum serving in that group.
6. Divide the calculated weight of one item by the minimum serving to find the number of grains/breads serving.

## EXAMPLE

1. Colonial Hamburger Buns – total weight of package – 1 lb. 6 oz.
2. Total buns in package – 12.
3. Change pounds to ounces before division – 1 lb. 6 oz. = 22 oz.
4. Divide 22 oz. by 12 buns. Each bun weighs 1.8 oz.
5. Hamburger buns are found in Group B.
6. Minimum serving size for 1 serving in Group B is 0.9 oz.
7. Divide 1.8 oz. by 0.9 oz. Each bun contains 2 servings of grains/breads.

How many grains/breads servings are in a bun that is in a package of 12 that weighs 12 oz.?

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<b>Recipe</b>	<b>Recipe Number</b>	<b>Grains/Breads Serving Equivalent</b>
<b>Grains/Breads</b>		
Baking powder biscuits	B-4	1 ½**
Banana bread squares	B-5	1
Bread stuffing	B-6	1 ½
Brown bread	B-7	1*
Cinnamon rolls	B-8	2
Cornbread	B-9	1
Fried rice	B-10	1
Italian bread	B-11	2**
Muffin squares	B-12	1
Pancakes	B-13	1
Pizza crust	B-14	2
Pourable pizza crust	B-15	2
Rolls (yeast)	B-16	2
Spanish rice	B-17	½
Sweet potato-prune bread squares	B-18	¾**
White bread	B-19	1**
Oatmeal muffin square	B-20	1*
Orange rice pilaf	B-21	1
Brown rice pilaf	B-22	1
Rice-vegetable casserole	B-23	¾
<b>Desserts (Provide grains/breads credit for Enhanced Food Based Menu Planning only)</b>		
Apple cobbler	C-1	1*
Apple crisp	C-2	¾
Applesauce cake	C-3	1
Brownies	C-4	½
Carrot cake	C-5	1
Cherry cobbler	C-6	1*
Cherry crisp	C-7	¾
Chocolate cake	C-8	¾
Chocolate chip cookies	C-9	¼ **
Oatmeal cookies	C-10	¼**
Top pastry crust (steam table pan)	C-12a	½
Bottom pastry crust (sheet pan)	C-12	¾ **
Peach cobbler	C-13	1*
Peanut butter cookies	C-14	½
Rice pudding	C-15	¼
Spice cake	C-16	1
Sweet potato cake	C-17	¾ **
Yellow cake	C-20	1
Royal brownies	C-21	½
Gingerbread	C-23	1 **
New oatmeal raisin cookies	C-25	1*
Peanut butter bars	C-26	½
New spice cake	C-28	1
Whole wheat sugar cookies	C-30	1
Chocoleana cake	C-31	¾ **
Orange rice cake	C-33	½

<b>Main Dishes</b>	<b>Recipe Number</b>	<b>Grains/Breads Serving Equivalent</b>
Beef or pork burrito	D-12	1 ½ *
Beef or pork taco	D-13	1*
Beef tamale pie	D-15	1
Chicken or turkey and noodle	D-17	1
Chicken or turkey pot pie	D-19	1 **
Ground beef and macaroni	D-22	1
Ground beef and Spanish rice	D-23	1
Lasagna with ground beef	D-25	¾
Macaroni and cheese	D-26	1
Meat loaf	D-27	½ *
Nachos and ground beef	D-28	1*
Pizza with cheese topping	D-30	2
Pizza with beef topping	D-31	2
Pizza with pork topping	D31a	2
Quiche /self-forming crust	D-32	½
Spaghetti and meat sauce	D-35	1
Tuna and noodles	D-37	1 ¼*
Turkey and dressing supreme	D-38	1 **
Chicken fajitas	D-40	1
Chicken tomato bake	D-41	1
Chicken Tetrazzini	D-42	½ **
Beef taco pie	D-45	1 ¼*
Arroz con queso	D-48	¾
Vegetable chili	D-49	¼
Vegetable lasagna	D-50	1 **
New macaroni and cheese	D-51	1 **
<b>Salads</b>		
Macaroni salad	E-7	1
Pasta salad	E-8	½
Taco salad	E-10	1*
Tabouleh	E-23	¾ *
<b>Sandwiches</b>		
Barbecued beef or pork on roll	F-2	2
Egg salad sandwich	F-3	2
Pizzaburger on a roll	F-4	2
Sloppy Joe on a roll	F-5	2
Stromboli	F-6	1 ½
Toasted cheese sandwich	F-7	2
Tuna salad sandwich	F-8	2
Vegetable Wrap (formerly Gyro)	F-9	2*
<b>Soup</b>		
Chicken or turkey noodle soup	H-2	½
Thick vegetable soup	H-5	½
Minestrone	H-7	¼

<b>Vegetables</b>	<b>Recipe Number</b>	<b>Grains/Breads Serving Equivalent</b>
Broccoli, cheese and rice casserole	I-8	¼
<b>Breakfast</b>		
Granola	J-1	1*
Breakfast burrito	J-2	1 ½ *
Baked French toast strips	J-3	1

\* Increase from previous grains/breads equivalent

\*\* Decrease from previous grains/breads equivalent

# GUIDANCE FOR CALCULATING THE GRAIN CONTRIBUTION IN GRAINS/BREADS CREDITING

Under the food-based menu planning alternative, how is the number of servings of grains/breads determined in a recipe, such as the one for New Oatmeal Raisin Cookies? How are the flour and oatmeal credited?

Enriched flour and oatmeal (rolled oats) both contribute toward a serving of grains/breads. It takes a different amount of each to be equivalent to a slice of bread. Therefore, the contribution of each is determined separately and then added together.

14.75 grams of enriched flour equal one serving of grains/breads

25 grams of dry whole-grain cereal, such as oatmeal, corn meal or grits, or bulgur, etc. equal one serving of grains/breads

If dry cereal is used as an ingredient, such as in Rice Krispie treats, it may be credited allowing  $\frac{3}{4}$  cup or 1 oz to equal one serving. One-half serving would equal  $\frac{3}{8}$  cup or 0.5 oz. and one-fourth serving would equal 3 tablespoons or 0.25 oz. of dry cereal.

If a cereal such as rolled oats or if rice is used as an ingredient in products such as granola or rice pudding, it may be credited allowing 1 serving =  $\frac{1}{2}$  cup cooked or 25 gm dry. One-half serving would equal  $\frac{1}{4}$  cup cooked or 12.5 gm dry and one-fourth serving would equal  $\frac{1}{8}$  cup or 6.25 gm of cereal.

The grains used as ingredients which may be counted as part of the total flour are: wheat, oat, corn, rye, and barley. The forms of grains which may be counted are the enriched flour, the meal, rolled, and the cracked form. The weight of each form of the grain as specified in the recipe should be totaled.

See the two attached recipe analysis as well as a worksheet.

Note the attached chart which outlines the serving equivalents for the grains/breads component for all USDA recipe files published since 1988. Items such as Chicken Noodle Soup, are also included so that credit can be given for any food item contributing at least  $\frac{1}{4}$  serving of grains/breads component. Several foods have been removed from the list as the most recent USDA recipes indicate that there is no grains/breads credit in a serving:

Beef Stew (D-14)  
Chicken or Turkey A la King (D-16)  
Country Fried Steak (D-21)  
Oven Fried Chicken (D-29)  
Salisbury Steak (D-33)

Cream of Vegetable Soup (H-3)  
Cream of Chicken Soup (H-6)  
Corn Pudding (I-10)  
Herbed Broccoli & Cauliflower Polonaise (I-18)  
Corn & Green Bean Casserole (I-19)

# CALCULATING THE GRAINS CONTRIBUTION IN GRAINS/BREADS CREDITING

Recipe Number	Recipe Name	Ingredients per 100 Servings	Quantity of Grains given in pounds	x grams (454 per lb)
C-10	Oatmeal Cookies	<b>All purpose flour</b>	1 lb 13 oz	1.81 lb x 454 g = 821g
		Baking soda Salt <b>Rolled oats</b>	1 lb 4 oz	1.25 lb x 454 g = 567 g
		Sugar Brown sugar, packed Ground cinnamon Ground cloves Ground nutmeg (optional) Shortening Butter or margarine Large eggs Vanilla Raisins, plumped (optional)		
		Calculations	Flour: $821 / 454 \text{ g} = 1.81 \text{ lb}$ = 55 servings of flour per 100 servings of Oatmeal Cookies  Oats: $567 / 25 \text{ g} = 22.68$ = 22 servings of oats per 100 servings of Oatmeal cookies  Add 55 (flour) and 22 (oats) = 77 servings of grains/breads per 100 servings of Oatmeal Cookies  $77 / 100 \text{ servings} = .77$ servings of grains/breads per oatmeal cookies  Round .77 down to the nearest $\frac{1}{4}$ serving: .75	

\*Note: 16 oz. = 1 lb.  
To change 13 oz. to a decimal:  
13 oz. divided by 16 oz. = .81 lb.

Repeat the process to change 4 oz. to a decimal:  
4 oz. divided by 16 oz. = .25 lb.

Expected contribution of flour per serving: 14.75 g

Expected contribution of oats per serving: 25 g

1 Oatmeal Cookie provides .75 (3/4) serving of Grains/Breads

# CALCULATING THE GRAINS CONTRIBUTION IN GRAINS/BREADS CREDITING

Recipe Number	Recipe Name	Ingredients per 100 Servings	Quantity of Grains given in pounds	x grams (454 per lb)
B-12	Muffin Squares	All-purpose flour Non-instant, non-fat dry milk OR Instant nonfat dry milk Baking powder Sugar Salt Raisins, plumped (optional) Large eggs (see note) Water Vegetable oil	3 lb 8 oz	$3.5 \text{ lb} \times 454 \text{ g} = 1,589 \text{ g}$
Note: 16 oz. = 1 lb. To change 8 oz. to a decimal: 8 oz. divided by 16 oz. = .5 lb.		Calculations	Flour: $1,589 / 14.75 \text{ g} = 107$ servings of flour per 100 servings of Muffin Squares  $107 / 100$ servings = 1.07 servings of grains/breads per Muffin Squares  Round 1.07 down to the nearest serving: 1.00	

Expected contribution of flour per serving: 14.75

1 Muffin Square provides 1 (1.0) servings of Grains/Breads

# ENHANCED FOOD BASED MENU PLANNING - ROCKWELL ELEMENTARY

Food Item	Monday	Tuesday	Wednesday	Thursday	Friday
Main Dish (source)	Stir Fry Chicken (D-39) with Rice (B-3) 1 G/B Meat Loaf (D-27) ½ G/B	Beef Burrito (D-12) 1 ½ G/B Chicken Tetrazzini (D-42) ½ G/B	Vegetable Chili (D-49) ¼ G/B Baked Glazed Ham	Beef Tamale Pie (D-15) 1 G/B Chicken Fajitas (D-40) 1 G/B	Spaghetti with Meat Sauce (D-35) 1 G/B Vegetable Wrap (F-9) 2 G/B
Grains/Breads	Yeast Roll (B-9) 2 G/B	Yeast Roll (B-9) 2 G/B	Cornbread (B-16) 1 G/B	Cornbread (B-16) 1 G/B	Yeast Roll (B-9) 2 G/B
Fruits/Vegetables (use school recipes)	Potatoes, instant, mashed Mixed Vegetables Apricots	Peas Spinach Pineapple Chunks	Vegetables (Assorted raw with low fat dip) Sweet Potatoes Fruit Cocktail	Corn Broccoli Pears	Green Beans Honey Carrots Oranges
Fruits/Vegetables Daily Choices (use school recipes)	Tossed Salad with Low-fat Dressing Fruit Fruit Juice	Tossed Salad with Low-fat Dressing Fruit Fruit Juice	Tossed Salad with Low-fat Dressing Fruit Fruit Juice	Tossed Salad with Low-fat Dressing Fruit Fruit Juice	Tossed Salad with Low-fat Dressing Fruit Fruit Juice
Desserts	Peanut Butter Bars (C-26) ½ G/B	Assorted Gelatin	Assorted Puddings	Ice Cream Treats	Brownie, purchased ½ G/B
Milk Choices	2% Milk 1% Milk 1% Chocolate Milk	2% Milk 1% Milk 1% Chocolate Milk	2% Milk 1% Milk 1% Chocolate Milk	2% Milk 1% Milk 1% Chocolate Milk	2% Milk 1% Milk 1% Chocolate Milk
Grains/Breads Serving Each Day					

G/B = Grains/Breads Credit

Add the daily Grains/Breads serving to obtain weekly total: \_\_\_\_\_

How many additional Grains/Breads servings are needed? \_\_\_\_\_

## 00237 – SWEET ROLL, HOMEMADE: R-7

LOCAL

PORTION: 1 EACH

QUANTITY: 500

<b>INGREDIENTS</b>	
FLOUR, ALL PURPOSE WHITE, ENRICHED, BLEACHED	50 LBS
MILK, DRY, NON FAT POWDER, W/O VITAMIN A ADDED	2 QUARTS + 2 ½ CUPS
SALT, TABLE	9 TBSP
YEAST, SAF-INSTANT, DRY	2 ½ CUPS
SUGAR, GRANULATED	6 ¾ CUPS
OIL, SALAD, TYPE B	3 QUARTS + 1 ½ CUPS
WATER, WARM	9 QUARTS
MARGARINE, LIQUID, SOYBEAN (HYDR&REG) AND CTTNSD	5 LBS
CINNAMON, GROUND	6 CUPS
SUGAR, GRANULATED	45 LBS
MARGARINE, LIQUID, SOYBEAN (HYDR&REG) AND CTTNSD	2 ¼ LBS
MILK 2% LOWFAT	6-1/2 PINT CARTONS
VANILLA EXTRACT	12 TBSP
SUGAR, POWDERED	12 LBS

### INSTRUCTIONS

MIX FIRST LIST OF INGREDIENTS.

BRUSH MARGARINE FROM SECOND LIST ON TO DOUGH.

SPRINKLE CINNAMON AND SUGAR FROM SECOND LIST ON DOUGH.

THIRD LIST IS FOR THE ICING.

### NUTRIENTS: PER 1 EACH

Calories	493	Iron	2.68 Mg	Protein	6.27 g	Percent of Calories from	→Protein	5.08%
Cholesterol	0 Mg	Calcium	63 Mg	Carbohydrate	91.77 g		→Carbohydrates	74.46%
Sodium	194 Mg	Vitamin A	67 RE	Total Fat	11.79 g		→Total Fat	21.53%
Fiber	3.15 g	Vitamin C	3.9Mg	Saturated Fat	1.81 g		→Saturated Fat	3.32%



# USING THE FOOD BUYING GUIDE FOR CHILD NUTRITION PROGRAMS

The purpose of this publication is to help ensure that meals served in the lunch and breakfast programs meet program requirements. It is the principal tool to determine the contribution foods make toward the meal requirements. The guide gives average yield information for over 600 food items. A new revision of the Food Buying Guide is now available to download at <http://www.fns.usda.gov/tn/Resources/foodbuyingguide.html>

A detailed explanation of how to use the guide can be found on pages I-46 through I-65 of the guide. The information provided is shown in six columns as below. Let's review the information for ground beef (not more than 15% fat).

## Meat and Meat Alternate

1. Food as purchased	2. Purchased unit	3. Servings per purchased unit	4. Serving or portion and contribution to the meal pattern requirement	5. Purchase units for 100 servings	6. Additional yield information
Ground Beef (no more than 15% fat)	Pound	12.0	1 oz cooked lean meat	8.4	1 lb AP = .75 lb cooked lean meat
		8.0	1 ½ oz cooked lean meat	12.6	
Ground Beef (no more than 10% fat)	Pound	12.1	1 oz cooked lean meat	8.3	1 lb AP = .76 lb. cooked lean meat
		8.1	1 ½ oz cooked lean meat	12.4	

## Food serving sizes listed in the Food Buying Guide:

Divide the number of servings needed by the number of servings expected from one purchase unit (pound, can, etc.) to obtain the number of purchase units needed for that food. Always round up to ensure enough food.

**Example:** (/ is the symbol that means divided by)

1. Servings needed -  
195 - ¼ cup servings of cooked carrot slices
2. Information given -  
1 pound of fresh carrots provides 8.4 ¼ cup servings of cooked sliced carrots
3. Calculation -  
 $195 / 8.4 = 23.2$  pounds fresh carrots

# FOR SERVINGS SIZES NOT LISTED IN THE FOOD BUYING GUIDE:

1. Divide the desired serving size by the serving size given in the guide to obtain a conversion factor.
2. Multiply the conversion factor by the number of servings needed to obtain the total servings needed.
3. Divide the total servings needed by the servings per purchase unit. Always round up to ensure enough food.

## **Example:**

1. Servings needed -  
150 – ½ cup servings of French fries
2. Information given -  
1 pound of frozen French fries, regular crinkle cut,  
provides 10.1 – ¼ cup servings
3. Calculation -  
Divide ½ by ¼ (or .05 / .25) = 2 is the factor to be used  
  
2 x 150 servings = 300 total ¼ cup servings needed  
  
300 / 10.1 = 29.7 pounds frozen French fries needed  
(300 divided by 10.1 = 29.7)

# MENU PRODUCTION RECORDS

The Menu Production Record is a valuable tool in the menu planning process. It serves the dual purpose of demonstrating compliance with program requirements and communicating the menu to staff.

## **Food Items**

List all food items used in the menu. Food items for Food Based Menu Planning are meat/meat alternate, vegetables/fruits, grains/breads, and milk. Include brand names and identification numbers of purchased, prepared food items. Condiments and other foods served with the meal should also be included on production records.

## **Recipe Number or Product Description**

Indicate the recipe number for the food item. A USDA recipe number, local school recipe number, or manufacturer's product code of each food item must be listed. Any food item that contains two or more ingredients or has preparation instructions must have a standardized recipe (i.e. seasoned or buttered corn, tossed salad, salad bar, lasagna, rolls, fruit salad, cookies, etc.)

The product description should be given on any convenience type or single food item. Also, include the form of the food item as appropriate (i.e. fresh apples, USDA sliced peaches, Rainbow hamburger buns, Tyson Chicken Nuggets 4401, catsup, etc.)

*Do not list vendor names-Only brand names*

## **Grade Groups**

Record planned number of portions, portion sizes, and actual student servings for each grade group used in the school(s). Have the following documentation available to explain the portion size:

- Standardized recipe
- Nutrition Facts Label or nutrient analysis data
- Child Nutrition (CN) label or product analysis statement

## Notes

## Notes

### **PLANNED NUMBER OF PORTIONS**

Projecting the number of portions is the first step in determining how much food to order and how much time to plan for preparation and equipment usage.

### **PORTION SIZE**

The portion size indicated on the recipe or on the purchased product case must be shown on the Menu Production Record. Listing the portion size on the Menu Production Record is a safeguard to ensure that the correct portion size is served.

### **ACTUAL STUDENT SERVINGS**

Staff must record the number of portions of each item that was actually served to students.

### **ACTUAL SERVINGS**

Staff should record the number of servings sold a la carte and the number of adult servings. Record leftovers on the Menu Production Record. Recording whether leftovers are to be frozen for later use or incorporated into the menu in the next few days is done in some schools. It is important to be able to track the source and use of leftovers.

### **COMMENTS**

Record any substitutions made in the menu. Include student comments about menu items and any special circumstances or situations. Your comments will be helpful for future reference.

### **NUMBER OF MEALS SERVED**

Record the total number of adult meals and reimbursable student meals served. Do not include a la carte sales or second meals.

### **CONDIMENTS**

Condiments such as mustard, catsup, jelly, salad dressing, and gravy are not counted as a menu item in Food Based Menu Planning. But all food counts toward the nutrient analysis when it is time to analyze and adjust the planned menu. Therefore, menu planners must include the projected servings and portion sizes of all condiments in the menu plan. For example, if a packet of catsup (9 grams) is made available for hamburgers, the menu should include the projected number of packets historically served.

Or, take this step by step approach to get an average serving of self-serve condiments.

1. Record the total amount available for service on the first day.
2. Record the additional amount available to the students during the trial period. Add to the beginning amount.
3. Subtract the amount left at the end of the trial period. The difference is the total amount of the condiment available during the period.
4. Divide the amount used by the number of students served during the trial period. The result is the average serving size per student.

**Example: Self-Serve Catsup**

Establish a trial period of 2 to 5 school days to measure condiment use. Follow steps 1-4 below to calculate the average use per student.

1. Record the total amount of catsup available for service on the first day of the trial period:

1 No. 10 can (115 oz) of catsup on the first day

2. Record the amount of additional catsup available during the trial period and add to the beginning amount:

1 No. 10 can (115 oz) of catsup on day #1  
+ 2 additional No. 10 cans (230 oz)  
= 3 No. 10 Cans (345 oz) available during the period

3. Subtract the catsup left at the end of the trail period from the total catsup available during the period. The difference is the amount used during the period:

3 No. 10 cans (345 oz)  
- 1/2 of one No. 10 can remaining (57.5 oz)  
= 2 1/2 No. 10 cans (287.5 oz) used during the trial period

4. Divide the amount of the catsup used by the number of students served during the trial period. The result is the average per student:

2 1/2 No. 10 cans (287.5 oz) divided by 270 students  
= approximately 1 oz of catsup used per student during the trial period.

# Notes



## DIRECTIONS FOR FOOD BASED MENU PRODUCTION RECORD

### HEADING

- **ACTUAL NUMBER OF MEALS SERVED**  
Record the total number of reimbursable student meals by grade group and non-reimbursable meals (adult meals and student second meals) served.
- **MEAL**  
Circle breakfast or lunch.
- **DATE**  
Write the calendar date this menu was served.
- **SCHOOL**  
Fill in school name.
- **OFFER VS. SERVE**  
Check yes or no.
- **MENU PLANNING:**  
Check which menu planning system is implemented.

### FOOD ITEMS

List all food items used in the menu. Food items for Food Based Menu Planning are meat/meat alternate, vegetables/fruits, grains/breads, and milk.

Include brand names and identification numbers of purchased prepared food items. Condiments and other foods served with the meal should also be included on production records.

### QUANTITY PREPARED

Indicate the amounts of food prepared in terms of pounds/ounces, #10 cans, or recipe number. When unsure of how to list a particular food in purchase units, check to see how the food is listed in the *Food Buying Guide*.

### GRADE GROUP

Record planned number of portions, portion size and actual student servings for each grade group used in your school(s). Have the following documentation available to explain the portion size:

- \*Standardized recipe
- \*Nutrition Facts Label or nutrient analysis data
- \*Child Nutrition (CN) label or a product analysis statement.

### ACTUAL

- **A LA CARTE**  
Record the actual number of a la carte items sold for each menu item.
- **ADULT SERVINGS**  
Record the number of adult servings actually served.
- **LEFTOVERS**  
Record the number of servings left over.

### COMMENTS

Record any changes or substitutions made in the menu. Include student comments about menu items and any special circumstances or situations.

### INTERNAL TEMPERATURE(S)/TIME(S)

Record the temperature(s)/time(s) of potentially hazardous food at the end of the cooking period prior to placing it on the serving line. Continue cooking if needed until it reaches the required internal temperature. If applicable, document any corrective action taken on this form or on another appropriate form. You do not need to record a second temperature if the required temperature is reached when first checked.

# NUTRIENT DATA

*This section provides a guide to use when collecting processed food product nutrient data. For programs using Food Based Menu Planning, nutrient data must be collected and available for all manufactured foods.*

Each processed food item is distinct in the nutrients it contributes to the menu. The manufactured product nutrient data indicates the amount of nutrients the product contains.

## PRODUCT NUTRITION DATA IS AVAILABLE IN TWO FORMS

- “Nutrition Facts” is a section on the product label.
- Obtain the manufacturer’s nutrient data directly from the food manufacturer, food distributor, or food broker. Ask to speak to the manufacturer’s corporate dietitian.

### AS PURCHASED OR AS SERVED

Every manufacturer must clarify if the product nutrient data is *as purchased* or *as served*. *As served* are those processed foods that do not have ingredients added or fat absorbed during preparation. *As purchased* are foods that have ingredients added in preparation, such as milk, eggs, and oil in bakery mixes; foods with preparation methods, such as bake or fry, or foods that gain or lose moisture or fat during preparation.

### Which foods require nutrient data from the manufacturer?

Typical food items that need nutrient data include heat and serve food (examples: burritos, frozen pizza, chicken nuggets), salad dressings, cookies, snack chips, or refried beans.

Generic items generally do not require nutrient data. Examples are milk, fresh, frozen, or canned fruits and vegetables, grain items (cereal, pasta, rice) and unprocessed meat. These items are already included in the National Nutrient Database for Child Nutrition Programs. However, specifics are required on the Menu Production Records about the form of these items (Examples: peaches in light syrup, or non-fat chocolate milk, or ground beef with less than twenty percent fat, commodity cheese blend, or brown rice).

The State Agency will conduct a nutritional analysis during the SMI Review. The following information for each food item will be needed.

<b>NUTRIENT INFORMATION REQUIRED FOR ANALYSIS</b>	
• Brand	• Protein in Grams
• Product Name	• Total Fat in Grams
• Product Code Number	• Percentage of Calories from Saturated Fat
• Package Size	• Calcium in Milligrams
• Portion Size	• Vitamin A in Retinal Equivalents
• Number of Servings per Package	• Vitamin C in Milligrams
• Calories	

**How is nutrition data collected if it is not included on the manufacturer’s product label?**

- Make a list of all products needing nutrient data.
- Call or write the manufacturer, food distributor, or food broker to request the nutrient data information be provided in writing. Send a Nutrient Data Submission Form for processed food product analysis. A blank copy of the form is included in this book.
- Note the date when the nutrient information was requested.
- Make sure the nutrition data indicates if it is based on *as purchased* or *as served*. If not indicated, contact the manufacturer for clarification.
- Check off each nutrient data sheet received on the product list.
- Review the nutrient data. Another product with a different nutrient composition may need to be chosen if the original product does not meet the nutrition standards.
- The manufacturer’s nutrient data is not always complete! If that is the case, re-contact the manufacturer to request the missing information. Note the date the request was made.

**ORGANIZATION OF FILES**

Store this information in a binder using the tabs suggested below. Place the appropriate data behind each tab making sure that the product name is easy to identify.

• Beans/Legumes	• Meats/Meat Alternates	• Sandwiches
• Breakfast Food	• Fruits and Vegetables	• Sauces & Gravies
• Condiments & Salad Dressings	• Grains /Breads	• Soups & Salads
• Desserts		

# SAMPLE NUTRITION FACTS LABEL

Serving sizes are now more consistent across product lines, are stated in both household and metric measures, and reflect the amounts people actually eat.

The list of nutrients covers those most important to the health of today's consumers, most of whom need to worry about getting too much of certain nutrients (fat, for example), rather than too few vitamins or minerals.

The label of larger packages may now tell the number of calories per gram of fat, carbohydrate, and protein.

<b>Nutrition Facts</b>	
Serving Size 3 oz (85g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 180	Calories from Fat 90
% Daily Value*	
<b>Total Fat</b> 10g	<b>15%</b>
Saturated Fat 40g	<b>20%</b>
Trans Fat 0.5g	
<b>Cholesterol</b> 70mg	<b>23%</b>
<b>Sodium</b> 60mg	<b>3%</b>
<b>Total Carbohydrate</b> 0g	<b>0%</b>
Dietary Fiber 0g	<b>0%</b>
Sugars 0g	
<b>Protein</b> 22g	
Vitamin A 0%	Vitamin C 0%
Calcium 2%	Iron 15%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your caloric needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

New title signals that the label contains the newly required information.

Calories from fat are now shown on the label to help consumers meet dietary guidelines that recommend people get no more than 30% of the calories in their overall diet from fat.

% Daily Value shows how a food fits into the overall daily diet.

Daily values are also something new. Some are maximums, as with fat (65 grams or less); others are minimums, as with carbohydrate (300 grams or more). The daily values for a 2,000 and 2,500 calorie diet must be listed on the label of larger packages.

\*This label is only a sample. Exact specifications are in the final rules.

**NUTRITION FACTS LABEL**

**Product Name:** \_\_\_\_\_

**Product Number:** \_\_\_\_\_

**Brand Name:** \_\_\_\_\_

## **NUTRIENT ANALYSIS DATA FORM**

Data submitted for this product are based on (check one):

“As Served” Basis: \_\_\_\_\_ “As Purchased” Basis: \_\_\_\_\_

Brand: \_\_\_\_\_

Product Name: \_\_\_\_\_

Product Code: \_\_\_\_\_

CN Label Number: \_\_\_\_\_

Package Size: \_\_\_\_\_ lb. \_\_\_\_\_ fluid oz. \_\_\_\_\_ grams

Standard Serving: \_\_\_\_\_  
 Number of Servings  
 per Package: \_\_\_\_\_

Weight per Serving: \_\_\_\_\_ grams

Analysis Based on: \_\_\_\_\_ (100 grams or servings)

**A value must be entered for each nutrient. If the food item does not contain a specific nutrient enter zero (0).**

<u><b>Nutrients</b></u>	<u><b>Measurement</b></u>	<u><b>Fill in Nutrient</b></u>	<u><b>Unit Weight</b></u>
Calories	xxx		kcal
Protein	xx.xxx		grams
Total Fat	xx.xxx		grams
Saturated Fat	x.xxx		grams
Carbohydrates	xx.xxx		grams
Total Dietary Fiber	xx.xx		grams
Cholesterol	xx.xx		milligrams
Calcium	xx.x		milligrams
Iron	xx.xxx		milligrams
Sodium	xx.x		milligrams
Vitamin C	x.xx		milligrams
Vitamin A	x.x		IU
Fat Change (+/-)	xxxx		% N/A
Moisture Change (+/-)	xxxx		% N/A

\* If available

# INSTRUCTIONS

## Submission of Nutrient Data to the Local Education Agency from the Food Manufacturer

A value must be submitted for each required nutrient per serving, edible portion, in the unit of measure indicated, and to the number of decimal places indicated on the form. If a food item does not contain a specific nutrient, enter zero (0). Do not leave any spaces blank on the data submission form. If any required nutrient values are missing, the food product can be entered into the local database, but the missing nutrient values must be marked as “missing” rather than zero (0).

Nutrient data are to be submitted on the “as served” basis for any food that does not have ingredients added in preparation or fat absorbed during preparation.

Nutrient data are to be submitted on the “as purchased” basis for 1) any foods that have ingredients added in preparation, such as milk, eggs, and oil added to the baked product mixes; 2) foods that have varying preparation methods, i.e. bake or fry; 3) foods that are prepared by frying; and 4) any food that gains or loses moisture during preparation. Additional data are required for “as purchased” nutrient data submissions.

If a food item gains or loses fat during preparation, provide the percentage of fat gain or loss when the product is prepared \_\_\_\_\_ +/- change.

If a food item gains or loses moisture during preparation, provide the percentage of moisture gain or loss when the product is prepared \_\_\_\_\_ +/- moisture change.

Fat may be gained or lost in cooking some foods, thereby changing the caloric value of food. Methods of preparation such as breading, frying, or baking affect this fat gain or loss. For example, chicken baked in the oven will lose fat during cooking, while batter-coated or breaded chicken that is deep-fried will gain fat during cooking. If fat is lost, calories will be decreased. In recipes where a fat gain or loss occurs, the fat changes are limited to those ingredients that are cooked together. For example, a fat gain occurs in deep-frying of French fries because fat is absorbed by the ingredients in the food item. Fat is lost from a broiled hamburger patty in which the fat has been drained.

This information will be used to develop and analyze the nutritional content of the recipe and will allow each Local Education Agency to prepare the food products according to regional preference.

# THE CHILD NUTRITION LABELING PROGRAM

## WHAT IS THE CHILD NUTRITION (CN) LABELING PROGRAM?

The CN Labeling Program:

- Is a voluntary Federal labeling program for the Child Nutrition Programs.
- Provides a warranty for CN labeled products.
- Allows manufacturers to state a product's contribution to the meal pattern requirements on their label.

## WHO RUNS THE PROGRAM?

The CN Labeling Program is run by the Food and Nutrition Services (FNS) of the U.S. Department of Agriculture (USDA) in cooperation with the following agencies:

- Food and Safety Inspection Service
- Agriculture Marketing Service
- National Marine Fisheries Service

## IS THE CN LABELING PROGRAM NEW?

- No, it has been in operation since the 1970's.
- New regulations published May 1 and effective July 2, 1984, changed how a CN Label will look.

## WHAT ARE THE ADVANTAGES OF USING CN LABELS?

- A CN label statement clearly identifies the contribution of a product toward the meal pattern requirements.
- A CN labeled product provides a warranty against audit claims if used according to the manufacturer's directions. This warranty applies only to the CN labeled product portion, not the entire meal.
- The CN label statement protects you from exaggerated claims about a product.

## DO CN LABELED PRODUCTS COST MORE?

- They should not. Products that make the same contribution should be similar in cost.
- Cost comparison between two meat products should be based on cost per ounce of meat/meat alternate that contributes to the meal pattern requirements, not on the product cost per ounce or pound.

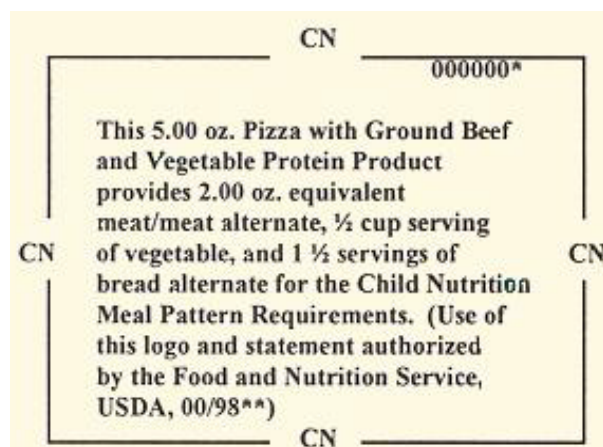
## WHAT PRODUCTS ARE ELIGIBLE FOR CN LABELS?

- Main dish products which contribute significantly to the meat/meat alternate component of the meal pattern requirements. Examples of these products include beef patties, cheese or meat pizzas, meat or cheese and bean burritos, egg rolls, and breaded fish portions.
- Juice and juice drink products which contain at least 50 percent full strength juice by volume. This includes such products as grape drink, fruit punch, and juice drink bars.

## ARE MANUFACTURERS REQUIRED TO CN LABEL PRODUCTS?

- There is no federal requirement that anyone make or purchase CN labeled products.
- Purchasing decisions are left to the local level.
- If you want to purchase a CN label product then you must clearly state this in your purchasing specifications.

## SAMPLE LABEL STATEMENT



## HOW WILL I IDENTIFY A CN LABEL?

A CN Label will always contain the following:

- The CN logo which is a distinct logo.
- The meal pattern contribution statement.
- A 6 digit product information number.
- USDA/FNS authorization.
- The month and year of approval.

**CHILD NUTRITION (CN) LABEL**

**Product Name:** \_\_\_\_\_

**Product Number:** \_\_\_\_\_

**Brand Name:** \_\_\_\_\_

# PRODUCT ANALYSIS FOR FOOD BASED MENU PLANNING METHOD

In lieu of a CN label, this product analysis form is an **example** of one that the food processor may use to provide information to assist the purchaser in determining to what extent a meat product contributes to the meal pattern requirement.

Product Name: \_\_\_\_\_

Product Code: \_\_\_\_\_

List Variety(ies) of Meat Used in Product: \_\_\_\_\_

Total Weight Per Portion of Uncooked Product: \_\_\_\_\_

Weight of Raw Meat \_\_\_\_\_

Percent Fat of Raw Meat \_\_\_\_\_

\*Weight of Dry VPP \_\_\_\_\_

\*Percent Protein in Dry VPP \_\_\_\_\_

\*Weight of Raw Meat and Dry VPP (include any liquid added for hydration) \_\_\_\_\_

\*Type of VPP Used: Flour: \_\_\_\_\_ Insolate: \_\_\_\_\_ Concentrate: \_\_\_\_\_

Weight of other ingredients \_\_\_\_\_

Total Weight of Precooked Product \_\_\_\_\_

Weight of Breading if Used \_\_\_\_\_

Weight of Precooked Meat \*(with VPP) \_\_\_\_\_

I certify that the above information is true and correct, and that the above meat product (ready for serving) contains \_\_\_\_\_ ounces of cooked lean meat/meat alternate when prepared according to directions. I understand that the above-named product will be used as a meal component for which Federal reimbursement will be claimed and that records are available to support the information indicated above.

Signed	Title
Company	Date

\*This information is needed if a creditable Vegetable Protein Product (VPP) is used in the product and counted toward meeting the two-ounce meat/meat alternate requirement.

I further certify that the VPP used in this product, when hydrated or formulated, will not be more than 30% by weight of the raw meat. The VPP conforms to Food and Consumer Services regulations. That is, the VPP used (1) contains at least 18% protein by weight when hydrated, (2) the biological quality of the protein in the VPP shall be at least 80% that of casein, and (3) contains the amounts and kinds of nutrients as required by FDA 43 FR 30472.

# MENU MODIFICATION

# MENU ADJUSTMENT AND MODIFICATION

If the weekly menu nutrient analysis does not meet the nutritional goals, look at the frequency, portion size, and balance of foods to modify the menu.

## **AFTER THE STATE AGENCY COMPLETES AN ANALYSIS OF THE MENU:**

Evaluate how well the current menu meets the appropriate Nutrient Standard. This will help to determine what, if any, changes must be made to meet the Nutrient Standard.

- How do the menus compare to the Nutrient Standards? What areas need changes? Which areas are acceptable?
- Do the menus have sufficient calories? Remember the importance of adequate, consistent calorie levels, which are close to the appropriate Nutrition Standards.
- Are the menus too high in fat or saturated fat?
- Are the menus low in calcium, iron, vitamin A or vitamin C?

## **REVIEW THE MENUS FOR VARIETY BY CHECKING THE FREQUENCY OF MENU ITEMS OFFERED:**

The frequency that a particular food or type of food is offered will affect the nutrient content of the menu.

- Are a variety of meats, fruits, vegetables, and grain products offered? Are some whole grains offered?
- Should the total number of low fat or low saturated fat foods or menu items be increased?
- Are more foods high in vitamin A or vitamin C needed?
- Can a popular high fat item be served fewer times in a cycle or week?

## Notes

## REVIEW THE PORTION SIZE

- Can a smaller serving be offered of popular foods that may be contributing too much fat, saturated fat, or sodium?
- Can the quantity of high fat ingredients in a recipe be reduced?
- Can a high fat ingredient in a recipe be changed to a lower fat ingredient?
- Can the portion size of a menu item be increased to provide the nutrients needed to meet the Nutrient Standard?

## CHECK FOR BALANCE

Next, look at the balance of foods within each day and week.

- Keep calories consistent throughout the entire week.
- Are the colors in the menu pleasing to the eye?
- Are the food flavor combinations pleasing to the taste?
- Does the menu have pleasing contrast in shapes, sizes, textures, and temperatures?
- Are there too many foods high in fat or saturated fat in the same day of the same week?
- Can a high fat meat/meat alternate be balanced with low fat vegetables/fruits or other low fat meat/meat alternates during the week?

*The following pages are resources to use when making menu modifications.*

## Notes

## QUICK WAYS TO CLIP THE FAT IN MEALS

- ✂ Purchase lower-fat brands of favorite items.
- ✂ Read nutrient labels and compare products.
- ✂ Bake foods instead of frying. i.e.--French fries, chicken nuggets.
- ✂ Use low-fat or fat-free salad dressings.
- ✂ Use low-fat shredded cheese instead of sliced cheese to top burgers or hot dogs.
- ✂ Substitute eggs with egg whites. When a recipe calls for 1 egg use 2 egg whites.
- ✂ Trim visible fat from meat.
- ✂ Offer jams, jellies and honey instead of margarine.
- ✂ Purchase chicken or turkey hot dogs and corn dogs. Be sure to check the label.
- ✂ Use 1% or skim milk in cooking.
- ✂ Replace part of the oil or margarine in cake and cookie recipes with applesauce, plain nonfat yogurt, or prune puree.
- ✂ Serve ice milk, sherbet or frozen yogurt instead of ice cream.
- ✂ Reduce the portion size of high fat foods and increase portions of lower fat foods. An example: offer a  $\frac{1}{2}$  cup of French fries and  $\frac{3}{4}$  cup of fresh fruit instead of  $\frac{3}{4}$  cup of French fries and  $\frac{1}{4}$  cup of fresh fruit.
- ✂ Serve high fat foods less often.
- ✂ Steam vegetables or cut the amount of margarine used in half or leave it out.
- ✂ Braise (brown) meats in low-fat broth.
- ✂ Season with spices instead of butter or margarine.
- ✂ Substitute sour cream with plain low-fat yogurt, or nonfat sour cream.
- ✂ Thicken sauces and gravies with cornstarch instead of a roux (a flour and butter mixture).
- ✂ Remove hardened fat from stock which has been chilled.

- ✂ Drain grease off browned ground beef and rinse with HOT water.
- ✂ Offer pretzels instead of potato chips.
- ✂ Serve flavored bagels instead of donuts.
- ✂ Remove skin from poultry before preparing.
- ✂ Reduce the amounts of nuts in a recipe by half or leave them out.
- ✂ Offer 1% and skim milk instead of 2% or whole milk.
- ✂ Sauté in vegetable oil spray or chicken broth rather than oil.
- ✂ Use evaporated skim milk in place of regular evaporated milk.
- ✂ Offer more fresh fruits, vegetables, and whole wheat grains.

## REMEMBER!

- Change one ingredient at a time when making substitutions in recipes.
- Keep quiet until you hear the applause. Don't announce substitutions made to reduce fat. Many people think low-fat means bland, tasteless food.
- If using a new spice, give a little history about the spice and set some out for the students to investigate.
- Don't give up after one try, especially with fruits and vegetables. It may take 8 to 10 exposures to a food before it is accepted by students.

# Great Ways to Reduce Sodium

- Check food labels and compare products. When looking for salt on a food label it may be referred to as Na, salt, soda, or sodium.
- Limit the amount of commercial soup base used in recipes. Choose a low sodium version.
- Use herbs and spices for seasoning instead of salt. Good seasonings to use include garlic, onion, and citrus juice.
- Drain and rinse canned vegetables.
- Limit the number of prepared foods used. These are often loaded with salt.
- Items such as soy sauce and teriyaki sauce are items which are high in sodium.
- Taste before reaching for the salt shaker.
- In recipes with the exception of those containing yeast, reduce salt by 50% or omit it totally.
- Reduce or skip the salt in cooking water.

# ADDING IRON

The best sources of iron are meat sources, however iron can be found in a variety of other food sources.

To give you an idea:

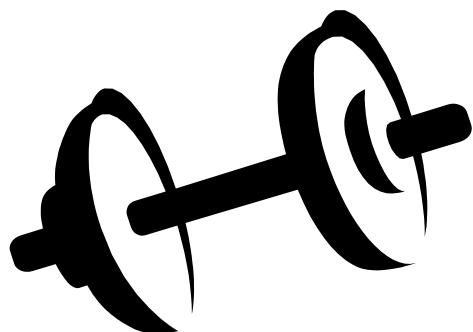
<u>FOOD</u>	<u>IRON (mg)</u>	<u>FOOD</u>	<u>IRON (mg)</u>
Beef liver, braised (3 oz)	5.8	Red kidney beans, cooked (1/2 cup)	2.6
Lean ground beef, broiled (3 oz)	1.8	Lima beans (1/2 cup)	2.5
Skinless chicken breast (3 oz)	1.1	Pretzels (1 oz)	1.3
Pork, lean, roasted (3 oz)	1.0	Whole wheat bread (1 slice)	0.9
Salmon, canned with bone (3 oz)	0.7	Egg yolk, large (1)	0.7
Fortified breakfast cereal (1 cup)	4.5-18	Raisins, seedless (1/3 cup)	1.1
Bran (1/2 cup)	3.5	Peanut butter, chunky (2 TBSP)	0.6
Spinach, boiled (1/2 cup)	3.2	Apricots, dried (3)	0.6

Add dried fruits to desserts.

Offer fortified cereals made from whole grains frequently.

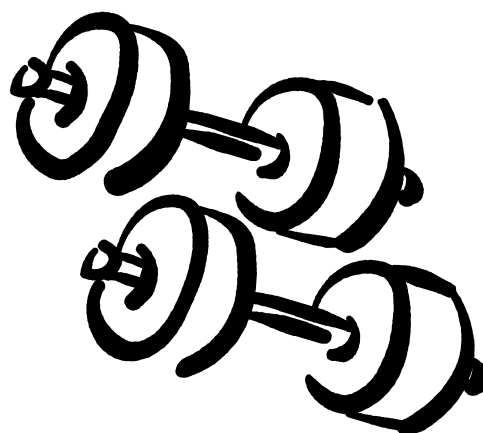
Use molasses in baking whenever possible.

Offer iron-rich foods such as those listed above.



**A Bit About Iron**  
 Iron from animal foods such as beef is better absorbed by the body than iron from plant foods.

Iron is better absorbed by the body when consumed with vitamin C rich foods.

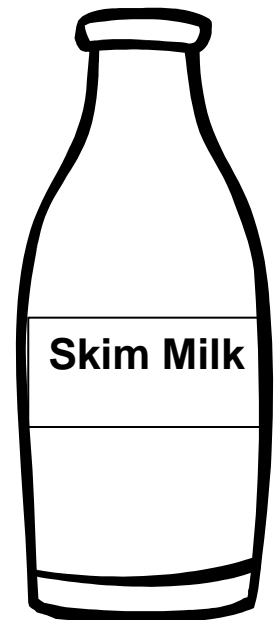


# SHRINK SATURATED FAT

**Saturated fats are fats that are firm at room temperature. They are primarily found in animal foods, such as meat, poultry, butter, whole milk, and from palm, coconut, and palm kernel oils. But that doesn't mean saturated fat can't be found in other items. Here are some ways to decrease the amount of saturated fat found in school lunches.**

## WAYS TO REDUCE SATURATED FAT TO LESS THAN 10% OF TOTAL CALORIES

- Offer 1% or skim milk.
- Omit margarine from vegetable recipes. When cooking corn, green beans, peas, and others forget the margarine.
- Decrease the serving size or the number of times cheese is served.
- Read food labels and compare different brands of processed products.
- Check the portion size of the item that contains the largest amount of saturated fat in the menu. Can the serving size be smaller?
- Use liquid vegetable oils instead of solid fats in recipes.
- Decrease total fat in meals.
- Check and compare salad dressings. Use nonstick spray for cooking.
- Use skim milk in cooking.



# HOW TO INCREASE VITAMINS A & C IN SCHOOL MEALS!

- Offer an assortment of fresh fruits for students to choose.
- Prepare a fresh fruit salad.
- Include spinach in a quiche or a fresh lettuce salad.
- Offer strawberries on top of angel food cake.
- Create a deluxe pizza with broccoli, shredded carrots, red and green peppers, chopped tomatoes and chopped spinach.
- Include pumpkin in desserts.
- Try stir- fried vegetables over rice.
- Once every few weeks treat the students to an exotic fruit or vegetable: star fruit, kohlrabi, mangoes, and others.



## WHY DO WE NEED FOODS RICH IN VITAMIN A AND VITAMIN C SO OFTEN?

Some of the functions of Vitamin A in the body include: preventing night blindness, promoting healthy skin, and increasing infection-resistance.

Vitamin C helps the body repair blood vessels, improve wound-healing, and develop strong bones and teeth. It also helps the body to better absorb iron from foods eaten.

Sources: Menu Planning Guide Dec. 1983 USDA  
Vitamins and Minerals in the Food Guide Pyramid Where are They Hiding? Cooperative Edition, NCR-540  
Eating Smart Even When You're Pressed for Time. National Cattlemen's Beef Association 1996

# GREAT WAYS TO PUMP-UP CALORIES

- Increase serving sizes of fruits, vegetables, and grains/breads offered.
- Compare calories in brands of reduced fat chocolate milk.
- Strive for more servings of bread, grains, pastas, rice, pretzels, and rolls.
- Add fruit or fruit juice to gelatin.
- Offer low fat dessert items: new oatmeal cookies (USDA #C-25), angel food cake, Rice Krispie Treats, and instant pudding made with skim milk.
- Add non-fat dry milk to soups, casseroles, and sauces.
- Serve fruit juice.
- Add dried fruit to recipes, desserts, or serve plain.
- Provide jams and jellies when bread items are served.



## Additional Ways to Increase Calories

- **Add nuts to cookies, muffins, or breads.**
- **Serve larger portions of the grains/breads items.**
- **Add dried fruit to muffins, cookies, breads, rice, grain dishes, cereals, or puddings.**
- **Serve fruit juice.**
- **Be generous with the amount of sauces and gravies added to pasta, cooked vegetables, and meats.**

# INCREASING GRAINS/BREAD SERVINGS

Try a variety of USDA recipes and make the most of commodity products to increase grains/breads served.

Rice pudding USDA C-33 and C-15

Rice pilaf USDA B-22

Pasta salad with a variety of fresh vegetables & fat free Italian dressing

Homemade rolls USDA B-16

Cinnamon rolls USDA B-8

Graham crackers

Animal crackers

Pretzels, large soft or hard

Muffin squares USDA B-12

Oatmeal muffin squares USDA B-20

Bread stuffing USDA B-6

Bread pudding



Biscuits USDA B-4



## Additional Ways to Increase Breads or Grains

- **Purchase larger buns or thicker slices of bread like Texas toast.**
- **Serve larger portions of the grains/bread items.**
- **Offer bread sticks with the entrée.**
- **Serve grain based desserts such as low fat cakes and cookies.**
- **Use a thicker pizza crust or serve bread sticks with pizza.**
- **Serve cornbread with chili in addition to crackers.**

# CALENDAR OF BEST BUYS

<p><b>JANUARY</b> Apples Grapefruit Oranges Pears</p>	<p><b>FEBRUARY</b> Apples Pears Grapefruit Oranges</p>	<p><b>MARCH</b> Apples Grapefruit Oranges Pears Strawberries</p>
<p><b>APRIL</b> Asparagus Pineapple Strawberries</p>	<p><b>MAY</b> Asparagus Pineapple Strawberries Tomatoes</p>	<p><b>JUNE</b> Asparagus Cherries Corn Melon Strawberries Tomatoes</p>
<p> <b>JULY</b> Berries Cherries Corn Grapes Lemons Melon Nectarines Peaches Plums Strawberries Tomatoes</p>	<p><b>AUGUST</b> Apples Corn Grapes Melon Nectarines Peaches Pears Plums Tomatoes</p>	<p><b>SEPTEMBER</b> Apples Broccoli Cauliflower Green Pepper Grapes Peaches Plums Tomatoes Winter Squash</p>
<p><b>OCTOBER</b> Apples Broccoli Brussels Sprouts Cauliflower Cranberries Grapes Oranges Pears Pumpkin Sweet Potatoes Winter Squash</p>	<p><b>NOVEMBER</b> Apples Broccoli Brussels Sprouts Cauliflower Cranberries Grapefruit Grapes Oranges Pears Pumpkin Sweet Potatoes Winter Squash</p>	<p><b>DECEMBER</b> Apples Cranberries Grapefruit Grapes Oranges Pears Sweet Potatoes Winter Squash</p> <p></p>

# GREAT WAYS TO "FIBER UP" SCHOOL LUNCH

Currently there is not a standard set by the USDA for fiber in school lunches. State Agencies set the standard for fiber in each state. It is recommended in the Dietary Guidelines for Americans that fiber be increased in the American diet. What role does school lunch play? School lunches are an excellent opportunity to increase the fiber in a child's diet. Many children eat school lunches and fiber can be increased without significant flavor changes.

Why should the amount of fiber be increased in the diets of school children? Many studies have shown that dietary fiber can decrease an individual's chance of developing some forms of cancer and reduce the risk of heart disease later in life. But there are some other reasons:

- It provides a feeling of fullness.
- High fiber foods such as beans tend to be inexpensive to serve.
- Foods highest in fiber are often whole foods such as fresh fruits and vegetables, requiring little preparation on the part of food service staff.
- Many high fiber foods are naturally low in fat.

## FIBER UP

- Switch to whole grain breads, cereal, buns, and bagels
- Plan to serve legumes two to three times a week
- Increase the number or serving size of fruits and vegetables
- Check food labels for fiber facts

## "Fiberize" Your Cooking Style

- Add legumes, vegetables, grains, and fruit to soups and salads.
- Experiment with unfamiliar grains like barley and buckwheat.
- When making rolls gradually increase the percent of whole wheat flour to 50% (Complete food and Nutrition Guide, Duyff p. 341).
- Serve cookies and baked goods made with whole wheat flour.
- Look for 'whole grain' in front of oat, wheat, rice, corn and barley on labels of breads and breakfast cereals.
- Include oatmeal in baked goods.
- Add dates and raisins to baked goods.
- Substitute dishes using dried peas and beans for protein servings.
- Add whole grain or vegetable pasta to the usual pasta dishes.
- Add bran to casseroles, meatloaf, and cooked cereal.
- Don't remove peels on fruits and vegetables.
- Add extra vegetables to soups, casseroles, salads, and rice dishes.

# HOW MUCH FIBER DO STUDENTS NEED?

To determine the amount of fiber needed for students use this simple formula:

**Age of student + 5 grams = fiber needed**

Example: 10 year old + 5 grams = 15 grams of fiber daily

To determine the grams of fiber recommended for breakfast of a ten year old student divide by 4 and for lunch divide by 3.

Example: **15 grams / 4 = 3.75 grams of fiber for breakfast**

**15 grams / 3 = 5 grams of fiber for lunch**

## WHAT TO LOOK FOR ON THE LABEL!

High fiber = 5 or more grams per serving

Good source = 2.5 to 4.9 grams per serving

More or added fiber = at least 2.5 grams or more per serving than traditional products.



## Sources of Fiber

Food	Amount	Grams of Fiber
<i>Grains</i>		
Raisin bran cereal	1 cup	7
Shredded wheat cereal	1cup	6
Oatmeal	1cup	4
Whole wheat bread	1 slice	2
Bran muffin	1 small	2
Fruit filled cereal bar	1 bar	1
Barley	½ cup	15
<i>Vegetables</i>		
Cooked green peas	½ cup	4
Cooked broccoli	½ cup	2
Baked potato with skins	1 med	4
Cooked carrots	½ cup	2
Lentils	½ cup	8
Pinto and navy beans	½ cup	3
<i>Fruits</i>		
Apple with peel	1 med	3
Orange	1 small	2
Raisins	¼ cup	2
banana	½ med	1

## Breakfast Menu Ideas

Cereal - Try Frosted Mini-Wheats, Cherrios, or raisin bran to add more fiber to breakfast

Hot oatmeal cereal with cinnamon, brown sugar, and raisins

Homemade muffins, USDA Recipe B-12 & B-20

Pancakes, USDA Recipe B-13

Pop Tarts

French toast sticks, USDA Recipe J-3

Biscuits, USDA Recipe B-4

Biscuits with sausage

Breakfast burrito with salsa, USDA Recipe J-2

Granola, USDA Recipe J-1

Breakfast pizza

Breakfast tacos

Graham crackers

Breakfast bars

Ham and cheese biscuit

Bagels with cream cheese

Cinnamon rolls, USDA Recipe B-8

Yogurt with fruit served with granola

Bagel French toast

Omelets

Cinnamon & sugar toast

Canadian bacon

Fresh fruit salad

Kiwi

Grapes

Oranges

Bananas

Apples

Strawberries

Melon - Watermelon, Cantaloupe, Honeydew

# Resources

# TRAINING MATERIALS

*This Chapter lists by topics the resource materials for Food Service Directors, on-site Food Service managers and Food Service staff members. Ask the State Agency consultant how to access resources after identifying which information may help to reach Healthy School Meals.*

## **Nutritional Requirements**

- USDA *Healthy School Meals Training*; workshop and material
- USDA *Assisted NuMenus*; manual
- USDA *Approved Software*; list
- SNA/SFSF *Trimming the Fat*; manual companion disk

## **Menu Planning for School Meals**

- USDA *Recipes for Schools*; CD
- USDA *School Lunch Challenge*; recipes
- USDA *Assisted NuMenus*; manual
- USDA *Menu Planner for Healthy School Meals*; CD
- USDA *Accommodating Children with Special Dietary Needs in School Nutrition Programs*; manual

## **Procurement**

- USDA *Food Buying Guide*; CD
- *Choice Plus*; handbook

## **Marketing**

- Team Nutrition: *Popular Team Nutrition Events Book*; link from DESE SFS Web Site
- USDA *Healthy School Meals Training*; workshop and manual
- *Culinary Techniques for Healthy School Meals*; NFSMI videos and lessons
- Team Nutrition: *SMI Tools for Success*; CD
- Team Nutrition: *Changing the Scene*; manual, VCR tape
- Team Nutrition: *Making It Happen*; manual

## **Food Production**

- USDA *Fruits and Vegetables Galore*; training manual, CD
- USDA *School Lunch Challenge*; recipes
- USDA *Commodity recipes*
- NFSMI *Culinary Techniques*; CD
- NFSMI *Cooks for Kids*; CD
- NFSMI *Cooking for the New Generation*; manual, VCR tape

## **Sanitation and Safety**

- *Serving it Safe*; CD ROM self-instruction and USDA training manual
- *Food Sate Schools Action Guide*; CD, manual, link from DESE SFS Web Site
- NFSMI HACCP – *Based Standard Operating Procedures*; CD
- NFSMI HACCP for *Child nutrition Programs – Building on the Basics*; manual, CD
- All Topic Areas
- MEALTALK; USDA Internet discussion group (<http://mealtalk@nal.usda.gov>)

## **Nutrition Education:**

### **Federal/Public Associations:**

- Food & Nutrition Information Center, U.S. Department of Agriculture  
Beltsville, MD 2070-2357  
(310)504-5719
- National School Food Service Management Institute,  
P.O. Drawer 188, University, MS 38677  
(800)321-3054
- USDA/Human Nutrition Information Service, Publication for Sale  
6505 Belcrest Rd., Hyattsville, MD 20782  
(202) 782-3238
- School Nutrition Association, 700 South Washington St. Suite 300, Alexandria, VA 22314-4287, [www.schoolnutrition.org](http://www.schoolnutrition.org)
- School Nutrition Association, Emporium, 2620 South Galapagos St., Englewood, CO 80110  
(800)728-0728
- Missouri School Nutrition Association: [www.mosna.org](http://www.mosna.org)

### **State Agencies:**

- Department of Elementary and Secondary Education  
School Food Services Section  
P.O. Box 480, Jefferson City, MO 65102  
(573) 751-3526
- Department of Health and Senior Services  
-Films and Literature Unit  
P.O. Box 570, Jefferson City, MO 65102-0570  
-Nutrition Education and Training Program  
P.O. Box 570, Jefferson City, MO 65102-0570  
(573) 751-6183
- Extension Publications, University of Missouri  
2800 Maguire Blvd., Columbia, MO 65211  
(800) 292-0969
- Missouri Department of Agriculture, Agri-Missouri  
P.O. Box 630, Jefferson City, MO 65102  
(573) 751-4211

# SOURCES

Ann Robinson, Ph. D., Director, Cindy Baugh B.S., Associate & Lumina Training Associates. (1997). *Tools for Success with Healthy School Meals*. Birmingham, AL: Virginia Department of Education.

Carol Miller & Sally Stevens (1997). *Standardizing Recipes*. Denver, CO: Colorado Department of Education, Nutrition Unit.

Oregon Department of Education, Child Nutrition Programs. (1997). *Travel Guide to Healthy School Meals*. Salem, OR.

United States Department of Agriculture, Food and Consumer Service. (1996). *Healthy School Meals Training*. Washington. DC.

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