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USDA Recipes for Child Care



United States Department of Agriculture
Food and Nutrition Service
Child Nutrition Programs

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Vegetable Frittata (D-01). Lentil Soup (H-07). Stir-Fry Chicken (D-18). Taco Salad (E-13). Whole-Wheat Muffin Squares (A-11A). Sound good?

These are just a few of the more than 150 standardized recipes developed by USDA that are identified by either name or letter and number. The recipes are designed to help you serve quality meals to your young customers. Quality meals are meals that:

- Taste good,
- Offer good nutrition, and
- Are attractive.

As recommended in the *Dietary Guidelines for Americans*, these recipes will help you add variety to your menus with plenty of fruits, vegetables, and whole-grain products. All of the recipes were carefully developed and tried—and retried—for product quality, consistency, and yield.

They are written for 25 and 50 servings, so they can easily be adjusted to serve larger or smaller groups. From old favorites like Pancakes and Sloppy Joes, to popular dishes like Taco Salad and Mexican Pizza, these recipes will help you put together and serve great-tasting, nutritious meals and snacks that children will love.

USDA Recipes for Child Care

This publication has three components: a) this printed booklet, b) a CD-ROM containing recipes, the booklet, and supplemental information resources including food safety posters, and c) a bonus CD-ROM of Team Nutrition's *Food Buying Guide* to help with purchasing food for your program.

Printed Booklet

This printed booklet discusses adjusting recipes, nutrient information, and safe food handling, and contains many helpful reference charts.

USDA Recipes for Child Care CD-ROM Content

1) Recipes

A collection of recipe files is listed by recipe name alphabetically and by recipe number. The recipes can be printed from the disk individually, by recipe category (Grains/Breads, Desserts, Main Dishes, etc.), or by the entire recipe file. Each recipe contributes to a reimbursable meal served to children in the Child and Adult Care Food Program (CACFP). Computer system requirements are listed on the CD face.

For this publication, we updated and revised the *Child Care Recipes: Food for*

Health and Fun (1999) using yields from the *Food Buying Guide for Child Nutrition Programs* (Revised 2008) and using the 2005 Food Code for the Hazard Analysis Critical Control Points.

These updated recipes supersede all previous recipe versions and provide updated crediting, nutrient values, and critical control points. To avoid using the wrong recipe, child care program operators should discard previous versions. Indexes of the recipes are located at the end of this printed booklet.

2) Supplemental Information

This CD-ROM contains additional guidance on techniques for purchasing, preparing, and storing food items that will be served to the children in your care.

3) Booklet Content

The booklet content is also on the CD to make it easy for you to print sections for your use or to share with others.

4) Bonus Mini Posters

Mini posters on hand washing and thermometer usage are included. Print them and display in areas where these two tasks are performed.

Introduction

continued

Food Buying Guide CD-ROM

This CD-ROM can help you buy the right amount of food and buy it economically. It can help you determine the specific contribution each food makes toward the meal pattern requirements. It has yield data for more than 1,200 food items and can provide ideas for adding new foods or new forms of familiar foods to your menus.

Why are quality meals important?

Because children's health is important! Child care programs have a special role in enhancing and maintaining children's health, since children may spend many years in this environment. Child care programs can help foster healthful behaviors, particularly in the areas of nutrition and physical fitness.

By serving wholesome and attractive meals, you can help children improve their attitudes toward healthy eating. You can also help them have healthier lives...now and in years to come.

To help you use the recipes from USDA, this guide:

- Gives you background on how the recipes were selected, developed, and field-tested.
- Takes you through each section of the recipe format, explaining how the information is organized.
- Explains and demonstrates the uses of the nutrient analysis provided for each recipe.
- Includes instructions on substituting ingredients and adjusting recipes, as well as tips for maximizing quality.

The recipes in this package will help you to tickle the appetites of the children in your care with nourishing meals and snacks that look good and taste good! Read on for more information about the recipes and other materials in this package. Additional information for child care can be found online in *Building Blocks for Fun and Healthy Meals* at teamnutrition.usda.gov/Resources/buildingblocks.html.



Reimbursable Meal Requirements

Follow Meal Patterns

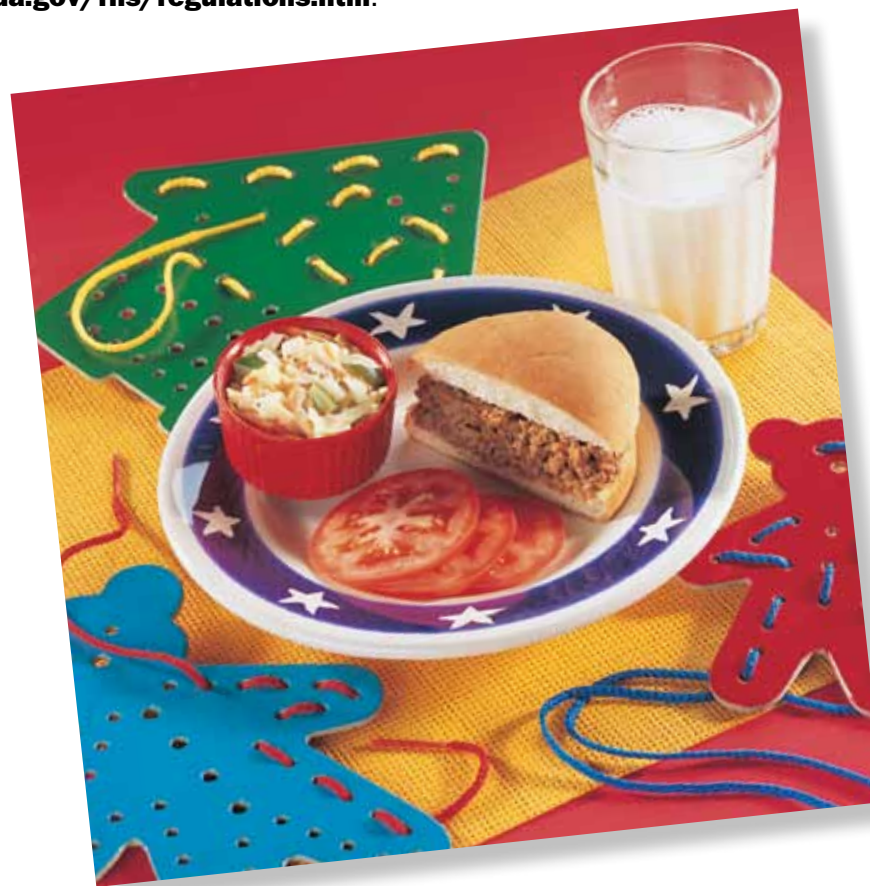
Reimbursable meals for the Child and Adult Care Food Program have specific requirements based on the meal patterns used. The meal pattern depends on the type of meal being served (breakfast, lunch, snack, or supper). A reimbursable meal must contain a specified quantity by age for each of the food components:

- Meat or meat alternate
- Vegetable or fruit
- Grains/breads
- Milk

The portion size and crediting contribution toward the food components are given in each recipe.

Menu Planning and Meal Pattern Resources

The nutrient values per serving are given for each recipe. For more information on menu planning see *Building Blocks for Fun and Healthy Meals* at teamnutrition.usda.gov/Resources/buildingblocks.html or for meal pattern requirements see Book 7 of the Code of Federal Regulations, part 226. These regulations may be viewed online at www.fns.usda.gov/fns/regulations.htm.



What the Recipes Will Help You Do

The standardized quantity recipes in this packet are designed to help you serve healthy, attractive breakfasts, lunches, snacks, and suppers that will appeal to the children in your care. To meet the needs of today's child care programs, recipes must:

- Be acceptable to children.
- Be economical.
- Be lower in fat and moderate in the use of added salt.
- Use a minimum number of ingredients and steps for preparation.
- Accommodate regional and local needs and preferences.

By using these recipes, you will be able to do the following:

1) Ensure product quality

These recipes were developed to provide quality and yield consistency.

Taste panels of adults and children tested these products for texture, taste, aroma, appearance, and overall quality.

2) Accurately predict the number of portions

This will allow you to simplify purchasing, reduce the amount of unnecessary inventory, and eliminate excessive amounts of leftovers.

3) Adjust the flavoring of each recipe to meet the expectations of children

Many of the recipes give information concerning additional ingredients that can be used to adjust the overall flavor of a recipe to more closely meet regional preferences. You will find these listed on individual recipe cards under optional ingredients or in a section called "Special Tips."

4) Obtain maximum benefit from the use of USDA Foods

Because child care centers are able to use USDA Foods in preparing meals, many of the recipes were developed and tested using available USDA Foods. This helps ensure that the final product of any recipe produced will meet the same standards for *quality* and *quantity* intended by the recipe developers. USDA Foods also help reduce costs when used in place of commercial brands.

5) Understand the nutritional value of each recipe

A nutritional analysis has been provided for each of the recipes. Many of these new or reformulated recipes have reduced added fat and/or sodium and some have increased the amount of dietary fiber.

6) Evaluate the specific contribution of each recipe toward the reimbursable meal

For your convenience, the food contribution toward the reimbursable meal for each portion of a recipe is specified in the recipe format.

7) Increase employee confidence

The recipes have clear, concise directions that cover all aspects of production. This will help improve employee morale by reducing the confusion associated with nonstandardized recipes.

Additionally, first-rate results will boost employee morale. The recipes are reliable and will produce consistent, high-quality meals. Employees will be confident and proud that they are serving the best quality products available.

What Is Special About the Recipes?

Plenty! For one thing, the recipes reflect what is happening with nutrition today.

You will find many of them to be as low in fat and cholesterol as possible, without losing flavor and appeal. Many include lots of fruits, vegetables, and grains, and they will help you add variety.

A menu of these recipes will be a healthy experience for children. You will be giving them needed nutrients and energy—without a lot of fat. You will also be helping them learn what it means to eat for good health.

The recipes will help you “win kids over” with some exciting new flavors...and help you prepare some of their all-time favorites in healthier ways.

A palette of diverse cultural recipes is presented here. You will find, for example, Beef Stir-Fry (D-18A) and Teriyaki Chicken (D-12) from the Orient, and Mexicali Corn (I-15) from Mexico.

Adding a taste of Europe are such recipes as Broccoli and Cauliflower Polonaise (I-16) from Poland, and Minestrone (H-12), Vegetable Lasagna (D-27), and Meat Lasagna (D-19) from Italy.

The recipes also reflect the rich diversity of the United States. Southwest flavor is unmistakable in several. There are Chili Con Carne (D-25), Tortilla Roll-Up (F-07), and Bean Burrito (D-21A) to name a few. Some traditional American favorites are Apple Crisp (B-19), Oven-Baked Fish (D-09), and Broccoli Salad (E-11).

The recipes have been carefully developed with both kids’ TASTES and their good HEALTH in mind.

To support the ideal of lowered fat, many of the recipes call for reduced-fat cheeses as well as reduced-fat mayonnaise, low-fat milk, and low-fat yogurt.

Versions of lower-fat baked goods, such as Brownies (B-15), Applesauce Cake (B-20), and Applesauce Pancakes (A-05), use applesauce as a fat substitute. The taste of the recipes is the same familiar one; just the fat content has been changed.

The use of low-sodium soup stocks, gravy bases, and soy sauce helps to reduce the sodium level in the recipes.

AND, the recipes have been designed with YOU—the food preparer—in mind.

We hope that as you read through and use these recipes you will find that they meet your needs. We have written the recipes with a limited number of steps, bearing in mind the equipment that you might have available.

Quality–Quality–Quality

The items you serve to each child are only as good as the quality of ingredients and handling put into each recipe!

To ensure high-quality results:

Purchase the finest quality ingredients possible

If the brand of lemon gelatin you select is weakly flavored because it is inexpensive, you will not have a strong lemon flavor in the end product.

If the brand of chicken stock has “water” listed as the first ingredient, instead of chicken broth, your Chicken Rice Soup (H-10A) will not have a meaty chicken flavor.

Store and handle carefully

If the broccoli you put into the Broccoli Salad (E-11) is old, dried, and wilted, the salad will not be crisp. And, many nutrients will be lost by the time you serve it.

If the frozen green beans in the Vegetable Medley (I-02) have been improperly handled by either the distributor or you — for instance, thawed and refrozen — your end product will not be the best possible.

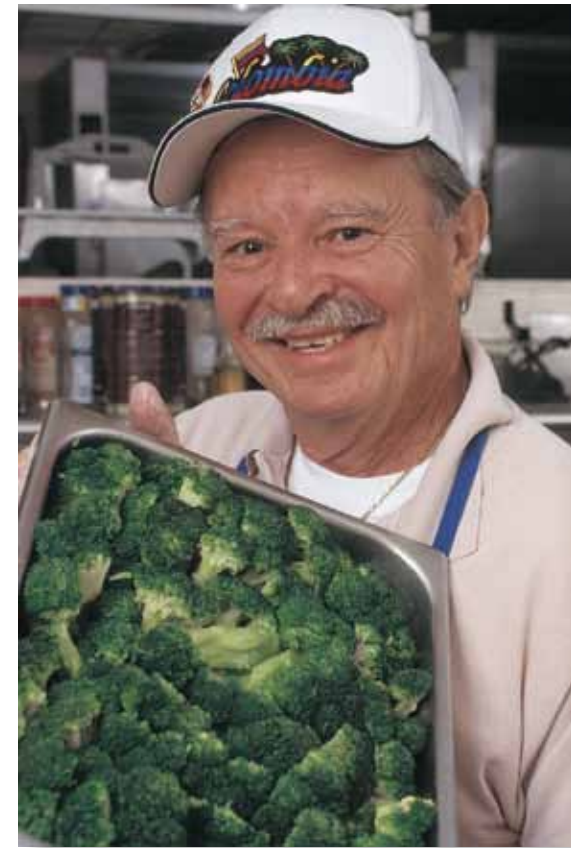
Purchase from reliable stores and check your storage and handling procedures to assure topnotch **quality - quality - quality**.

Check your cooking techniques

If your cakes and brownies are overbaked because you are not using an oven thermometer to maintain exact oven temperatures, they will be dried out, tough, and crumbly.

If the stir-fry is not cooked in batches, or if it is held for a long period of time, the vegetables will not be brightly colored and crispy. They will be limp and uninviting.

Batch-cooking is cooking in small quantities to maintain high quality throughout the serving period. This should be used when you are serving 50 or more meals or have alternate serving times. Each preparation should not exceed what can be served in approximately the next 15 minutes or so. This means there will be **continuous** heating or cooking throughout the meal.



Working With the Recipes

On the following pages, we will take a close look at how each recipe is organized.

Recipe Header:

This area contains the recipe title, credited food components, and file location.

The recipe title: →

Stir-Fry Chicken

Main Dishes

D-18

Recipe titles have been kept as straightforward as possible. Descriptive words related to texture or flavor have been avoided.

Meat-Vegetable

Ingredients	Weight		Measure		Directions		
	Weight	Measure	Weight	Measure			
Cornstarch	2 oz	¼ cup	3 Tbsp	4 oz	¼ cup	2 Tbsp	1. Dissolve cornstarch in cold water and soy sauce. Add ginger, granulated garlic, and pepper. 2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3-5 minutes, until thickened. Remove from heat. 4. Sauté sliced carrots in oil for 4 minutes. 5. Add onions, cook for 1 minute. 6. Add broccoli and cook for 2 minutes. Place in serving pans (9" x 13" x 2"). For 25 servings, use 2 pans. For 50 servings, use 4 pans. Keep warm. 7. Sauté chicken in oil for 2-3 minutes. Add chicken to vegetables in pans. Add sauce and mix to coat chicken and vegetables.
Water, cold		½ cup			1 cup		
Low-sodium soy sauce		½ cup			1 cup		
Ground ginger		¼ tsp			½ tsp		
Granulated garlic		1 Tbsp	1 ½ tsp		3 Tbsp		
Ground black or white pepper		1 tsp			2 tsp		
Chicken stock, non-MSG		1 qt			2 qt		
*Fresh carrots, peeled, ¼" slices OR Frozen sliced carrots	2 lb 13 oz OR 3 lb 6 oz	2 qt OR 3 qt		5 lb 10 oz OR 6 lb 12 oz	1 gal 2 cups OR 1 gal 2 qt		
Vegetable oil		½ cup			½ cup		
*Fresh onions, chopped OR Frozen mixed Oriental vegetables	10 oz OR 3 lb 7 oz	2 cups OR 2 qt ¾ cups		1 lb 4 oz OR 6 lb 14 oz	1 qt OR 1 gal 1 ½ qt		
Raw chicken skinless, boneless, ½" cubes	4 lb 8 oz			9 lb			

The recipe file location: →

The recipes are organized by food categories and recipe numbers.

The food categories are:

- A** – Grains/Breads
- B** – Desserts
- C** – Dips, Sauces, and Toppings
- D** – Main Dishes
- E** – Salads and Salad Dressings
- F** – Sandwiches
- G** – Snacks
- H** – Soups
- I** – Vegetables

The food components contributing credit toward the reimbursable meal:

This indicates the food components of a particular recipe that contribute credit to the reimbursable meal. Our sample recipe, Stir-Fry Chicken (D-18), contributes credit to both the Meat and Vegetable meal components.

Each recipe has been assigned: (1) a letter to identify the recipe category and (2) a number indicating its place within this category. Letters that appear after the number indicate a variation of the main recipe.

For example, a recipe with a designation of B-17 would indicate that this recipe is number 17 within the Desserts category.

Ingredients:

In this next example, the first column of the Stir-Fry Chicken (D-18) recipe is highlighted.

First, note the order in which ingredients are listed:

Ingredients are listed in the same order as they are required for production.

Second, note the form in which ingredients are listed:

You will see that our sample recipe specifies: **Fresh carrots, peeled, 1/4" slices.**

This tells you the carrots are to be purchased fresh, and then peeled and cut into 1/4"- thick slices prior to being used in the recipe.

Stir-Fry Chicken

Meat-Vegetable

Main Dishes

D-18

Ingredients	25 Servings		50 Servings		Directions
	Weight	Measure	Weight	Measure	
Cornstarch	2 oz	¼ cup 3 Tbsp	4 oz	¼ cup 2 Tbsp	1. Dissolve cornstarch in cold water and soy sauce. Add ginger, granulated garlic, and pepper.
Water, cold		½ cup		1 cup	
Low-sodium soy sauce		½ cup		1 cup	
Ground ginger		¼ tsp		½ tsp	
Granulated garlic		1 Tbsp 1 ½ tsp		3 Tbsp	
Ground black or white pepper		1 tsp		2 tsp	
Chicken stock, non-MSG		1 qt		2 qt	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3-5 minutes, until thickened. Remove from heat.
*Fresh carrots, peeled, ¼" slices OR Frozen sliced carrots	2 lb 13 oz OR 3 lb 6 oz	2 qt 1 cup OR 3 qt	5 lb 10 oz OR 6 lb 12 oz	1 gal 2 cups OR 1 gal 2 qt	4. Sauté sliced carrots in oil for 4 minutes.
Vegetable oil		¼ cup		½ cup	
*Fresh onions, chopped	10 oz	2 cups	1 lb 4 oz	1 qt	5. Add onions, cook for 1 minute.
*Fresh broccoli, chopped OR Frozen mixed Oriental vegetables	2 lb 13 oz OR 3 lb 7 oz	1 gal 1 ½ qt OR 2 qt 3 ¼ cups	5 lb 10 oz OR 6 lb 14 oz	2 gal 2 ¼ qt OR 1 gal 1 ¾ qt	6. Add broccoli and cook for 2 minutes. Place in serving pans (9" x 13" x 2"). For 25 servings, use 2 pans. For 50 servings, use 4 pans. Keep warm.
Raw chicken skinless, boneless, ½" cubes	4 lb 8 oz		9 lb		
Vegetable oil		½ cup		1 cup	7. Sauté chicken in oil for 2-3 minutes. Add chicken to vegetables in pans. Add sauce and mix to coat chicken and vegetables. CCP: Heat to 165° F or higher for at least 15 seconds.
					8. CCP: Hold for hot service at 135° F or higher. Portion with 2 rounded No. 10 scoops (¾ cup 1 Tbsp).

Working With the Recipes

continued

On All of the Recipes:

The purchase state of the ingredient (such as fresh, frozen, canned) appears before the ingredient name. And, the form of the ingredient (such as peeled, sliced, etc.) comes after the ingredient name.

In order to obtain the maximum possible quality during production, it is **very important** that you follow the recipe exactly. The **purchase state** (fresh, canned, frozen, etc.) of your ingredients and **the form** (peeled, sliced, etc.) should always be the same as listed in the recipe.

All of the recipes will be equally successful whether USDA Foods or commercially available ingredients are used. However, where possible, the recipes have been developed and standardized using USDA Foods products.



When you are purchasing ingredients, remember to:

Select the best possible quality

The quality of the final product will rely heavily on the quality of ingredients used.

Purchase products that will produce the “healthiest” overall product

For example, our sample recipe for Stir-Fry Chicken (D-18) calls for chicken stock, non-MSG (without monosodium glutamate). When purchasing stocks and bases, select brands that do **not** contain MSG and have a moderate level of sodium (salt).

Read food labels carefully. Food manufacturers must list ingredients in descending order of predominance by weight. So, if salt is the first ingredient listed, you know that the product contains more salt than anything else.

Alternate Ingredients:

Alternate ingredients are listed in many of the recipes to give you flexibility when ordering. They may also help you accommodate limitations in labor or equipment.

This example shows how alternate ingredients appear in the recipe format. Several lines are highlighted.

As you can see, alternate ingredients are listed on separate lines separated by the word **“OR.”** It is important that you select only **one** of the options provided. Do **not** add both the primary and the alternate ingredients to the recipe.

In the Stir-Fry Chicken (D-18) example:

You may choose to use the fresh carrots, sliced, which is listed in the ingredients.

OR

You may choose to use the alternate, frozen sliced carrots.

Also, you may choose to use the fresh broccoli, chopped,

OR

You may choose to use the alternate, frozen mixed Oriental vegetables.

Stir-Fry Chicken

Meat-Vegetable		Main Dishes			D-18
Ingredients	25 Servings		50 Servings		Directions
	Weight	Measure	Weight	Measure	
Cornstarch	2 oz	¼ cup 3 Tbsp	4 oz	¼ cup 2 Tbsp	1. Dissolve cornstarch in cold water and soy sauce. Add ginger, granulated garlic, and pepper.
Water, cold		¼ cup		1 cup	
Low-sodium soy sauce		¼ cup		1 cup	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3-5 minutes, until thickened. Remove from heat. 4. Sauté sliced carrots in oil for 4 minutes.
Ground ginger		¼ tsp		½ tsp	
Granulated garlic		1 Tbsp 1 ½ tsp		3 Tbsp	
Ground black or white pepper		1 tsp		2 tsp	
Chicken stock, non-MSG		1 qt		2 qt	
*Fresh carrots, peeled, ¼" slices	2 lb 13 oz	2 qt 1 cup	5 lb 10 oz	1 gal 2 cups	
OR Frozen sliced carrots	8 oz	¾ cup	6 lb 12 oz	1 gal 2 qt	
*Fresh onions, chopped	10 oz	2 cups	1 lb 4 oz	1 qt	5. Add onions, cook for 1 minute.
*Fresh broccoli, chopped OR	2 lb 13 oz 7 oz	1 gal 1 ¼ qt 2 qt ¾ cups	5 lb 10 oz 6 lb 14 oz	2 gal 2 ¼ qt 1 gal 1 ¼ qt	
OR Frozen mixed Oriental vegetables	8 oz		9 lb		6. Add broccoli and cook for 2 minutes. Place in serving pans (9" x 13" x 2"). For 25 servings, use 2 pans. For 50 servings, use 4 pans. Keep warm. 7. Sauté chicken in oil for 2-3 minutes. Add chicken to vegetables in pans. Add sauce and mix to coat chicken and vegetables. CCP: Heat to 165° F or higher for at least 15 seconds.
Vegetable oil		½ cup		1 cup	
					8. CCP: Hold for hot service at 135° F or higher. Portion with 2 rounded No. 10 scoops (¾ cup 1 Tbsp).

Optional Ingredients:

Some of the recipes include optional ingredients. These are typically used for seasoning and garnishing. If an ingredient is optional, the word “(optional)” will immediately follow it in the ingredient list.

Optional ingredients may be used to increase a recipe’s appeal in a particular area or region. While certain ingredients may be preferred by children in some regions of the country, they may not appeal to others.

Optional ingredients may also be used to change the meal pattern contribution. However, it is important to note that optional ingredients are **not included** in the contribution to the reimbursable meal or the Nutritional Analysis of the recipe.

The instructions under Directions will indicate when to add the optional ingredients.

Weights and Measures for 25 and 50 servings:

In this example, the center of the recipe format is highlighted. These columns show the quantities you will need for producing 25 and 50 portions of the recipe.

Weight measurements are given for dry and solid ingredients

The weight measurements are written in pounds (lb) and ounces (oz).

Because it is sometimes necessary to use volume measure, the volume equivalents have also been given for the dry and solid ingredients.

All recipes were tested using weight measurements unless only a volume measurement is given.

Volume measurements are given for liquid ingredients and include:

- Teaspoons (tsp)
- Tablespoons (Tbsp)
- Cups (c)
- Quarts (qt)
- Gallons (gal)

Note:

Can sizes are provided in the recipes for estimating how much food to take from the

Stir-Fry Chicken

Meat-Vegetable

Main Dishes

D-18

Ingredients	25 Servings		50 Servings		Directions
	Weight	Measure	Weight	Measure	
Cornstarch	2 oz	¼ cup 3 Tbsp	4 oz	¼ cup 2 Tbsp	1. Dissolve cornstarch in cold water and soy sauce. Add ginger, granulated garlic, and pepper.
Water, cold		½ cup		1 cup	
Low-sodium soy sauce		½ cup		1 cup	
Ground ginger		¼ tsp		½ tsp	
Granulated garlic		1 Tbsp 1 ½ tsp		3 Tbsp	
Ground black or white pepper		1 tsp		2 tsp	
Chicken stock, non-MSG		1 qt		2 qt	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3-5 minutes, until thickened. Remove from heat.
*Fresh carrots, peeled, ¼" slices OR Frozen sliced carrots	2 lb 13 oz OR 3 lb 6 oz	2 qt 1 cup OR 3 qt	5 lb 10 oz OR 6 lb 12 oz	1 gal 2 cups OR 1 gal 2 qt	4. Sauté sliced carrots in oil for 4 minutes.
Vegetable oil		¼ cup		½ cup	
*Fresh onions, chopped	10 oz	2 cups	1 lb 4 oz	1 qt	5. Add onions, cook for 1 minute.
*Fresh broccoli, chopped OR Frozen mixed Oriental vegetables	2 lb 13 oz OR 3 lb 7 oz	1 gal 1 ½ qt OR 2 qt 3 ¼ cups	5 lb 10 oz OR 6 lb 14 oz	2 gal 2 ¼ qt OR 1 gal 1 ½ qt	
Raw chicken skinless, boneless, ½" cubes	4 lb 8 oz		9 lb		7. Sauté chicken in oil for 2-3 minutes. Add chicken to vegetables in pans. Add sauce and mix to coat chicken and vegetables. CCP: Heat to 165° F or higher for at least 15 seconds.
Vegetable oil		½ cup		1 cup	
					8. CCP: Hold for hot service at 135° F or higher.

storeroom. However, using can sizes is not an accurate measuring method.

Spices, flavorings, and other ingredients of less than 2 ounces are given a volume measurement since most scales are not able to measure such a small quantity accurately.

A note about baking:

When measuring dry ingredients you will be using in a baked product, it is very important that you measure the ingredients by **weight** whenever possible. This is because even

slight variations in measurement can alter the quality of the final product.

Consider the following:

- One pound of *unsifted* all-purpose flour can range from 2 ½ cups to 4 cups.
- One pound of *sifted* all-purpose flour can range from 3 cups to 4 ½ cups.
- These examples make it easy to see why measuring the flour for a baked product only by *volume* can result in an **inconsistent product**.

Directions:

In our next example, the far-right column is highlighted. This section lists all the steps needed to prepare the recipe.

Each step is numbered in sequence and is directly across from the ingredients to which it applies.

The directions include:

- Mixing speeds and times
- Cooking procedures
- Panning procedures
- Baking times and temperatures
- Critical control points
- Portioning directions
- Garnishing and serving instructions

The directions **do not** account for any advance preparation work that must be done in order to prepare the ingredients for recipe production. However, it is important to account for any preparation tasks in scheduling, and a good idea to take care of these well in advance of the actual production.

For example, for the Fruit and Rice Dessert (B-09) you will need to allow time to prepare rice and time to refrigerate the prepared rice for at least an hour **before** you can assemble the dessert.

Stir-Fry Chicken

Meat-Vegetable		Main Dishes			D-18
Ingredients	25 Servings		50 Servings		Directions
	Weight	Measure	Weight	Measure	
Cornstarch	2 oz	¼ cup 3 Tbsp	4 oz	¼ cup 2 Tbsp	1. Dissolve cornstarch in cold water and soy sauce. Add ginger, granulated garlic, and pepper.
Water, cold		½ cup		1 cup	
Low-sodium soy sauce		½ cup		1 cup	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer.
Ground ginger		¼ tsp		½ tsp	
Granulated garlic		1 Tbsp 1 ½ tsp		3 Tbsp	3. Cook for 3-5 minutes, until thickened. Remove from heat.
Ground black or white pepper		1 tsp		2 tsp	
Chicken stock, non-MSG		1 qt		2 qt	4. Sauté sliced carrots in oil for 4 minutes.
*Fresh carrots, peeled, ¼" slices	2 lb 13 oz	2 qt 1 cup	5 lb 10 oz	1 gal 2 cups	
OR			OR		5. Add onions, cook for 1 minute.
Frozen sliced carrots	3 lb 6 oz	3 qt	6 lb 12 oz	1 gal 2 qt	
Vegetable oil		½ cup		½ cup	6. Add broccoli and cook for 2 minutes. Place in serving pans (9" x 13" x 2"). For 25 servings, use 2 pans. For 50 servings, use 4 pans. Keep warm.
*Fresh onions, chopped	10 oz	2 cups	1 lb 4 oz	1 qt	
OR			OR		7. Sauté chicken in oil for 2-3 minutes. Add chicken to vegetables in pans. Add sauce and mix to coat chicken and vegetables.
*Fresh broccoli, chopped	2 lb 13 oz	1 gal 1 ½ qt	5 lb 10 oz	2 gal 2 ¼ qt	
OR			OR		8. CCP: Hold for hot service at 135° F or higher. Portion with 2 rounded No. 10 scoops (¾ cup 1 Tbsp).
Frozen mixed Oriental vegetables	3 lb 7 oz	2 qt 3 ½ cups	6 lb 14 oz	1 gal 1 ½ qt	
Raw chicken skinless, boneless, ½" cubes	4 lb 8 oz		9 lb		
Vegetable oil		½ cup		1 cup	

We encourage you to read the directions for the recipe carefully **before you begin** production. Use them as you would a road map before starting out on a trip, and keep in mind the following:

In order to obtain the maximum possible quality from each recipe and ensure that the reimbursable meal requirements are met, all of the procedures outlined in this section of the recipe must be followed **precisely**.

For example, when you read the recipe for Stir-Fry Chicken (D-18) you will see in Step 8: **"Portion with 2 rounded No. 10 scoops."**

This is important because *level* No. 10 scoops will not provide enough food to meet meal pattern contributions.

The recipe format also includes a variety of other useful information, such as:

- Portion size
- The specific contribution of each serving toward the reimbursable meal
- Yield for 25 and 50 servings
- Variations
- Marketing guide for selected items
- Nutrients per serving

You will find this information on the **last page of each recipe**. Most recipes are two pages long; however, some are three or four.

Again using the Stir-Fry Chicken (D-18) example, let us first look at portion size, contribution to reimbursable meal requirements, and yield. These sections are highlighted.

Stir-Fry Chicken

Meat-Vegetable

Main Dishes

D-18

* See Marketing Guide

Marketing Guide for Selected Items

Food as Purchased for	25 Servings	50 Servings
Carrots	3 lb 7 oz	6 lb 14 oz
Mature Onions	12 oz	1 lb 8 oz
Broccoli	3 lb 8 oz	7 lb

SERVING:

$\frac{3}{4}$ cup 1 tablespoon (2 rounded No. 10 scoops) provides the equivalent of 2 oz of cooked lean meat and $\frac{5}{8}$ cup of vegetable.

YIELD:

25 Servings: 11 lb 10 oz
50 Servings: 23 lb 4 oz

VOLUME:

25 Servings: 1 gallon 1 quart
50 Servings: 2 gallons 2 quarts

Serving:

The portion size and the suggested portioning tools are listed here.

Contribution to the reimbursable meal

This section of the recipe format provides information on the specific contribution of each serving toward the reimbursable meal.

Reimbursable meals contain foods that qualify to be in the categories of Meat/Meat Alternate, Vegetable/Fruit, and Grains/Breads.

In our sample recipe, a $\frac{3}{4}$ cup, 1-tablespoon (2 rounded No. 10 scoops) portion of Stir-Fry Chicken (D-18) contributes 2 ounces of **cooked lean meat** and $\frac{5}{8}$ cup of **vegetable**.

Yield:

The total recipe yield for both 25 and 50 servings is stated by weight (pounds, ounces). For some recipes, the total yield is also stated by volume (gallons, cups).

Alternate Portion Shapes:

Some of the grains/breads recipes in the collection include instructions for different-shaped portions from the basic recipe, and others do not. In our Peach Muffin Squares (A-16A) example, the alternate portioning instructions are highlighted.

If a recipe has alternate instructions, follow all of the standard directions in the basic recipe, changing only those specified in the variation instructions.



Peach Muffin Squares

Grains/Breads		Grains/Breads		A-16A
Enriched all-purpose flour	2 Tbsp		¼ cup	
Brown sugar, packed	2 Tbsp ¼ tsp	2 oz	¼ cup ½ tsp	
Margarine or butter	2 Tbsp	2 oz	¼ cup	
				8. Into each pan (9" x 13" x 2") which has been lightly coated with pan release spray, pour and spread evenly 3 lb 8 ½ oz (1 qt 2 ¼ cups) of batter. For 25 servings, use 1 pan. For 50 servings, use 2 pans.
Canned sliced cling peaches, in syrup, drained	1 lb 11 oz 3 ¾ cups (¾ No. 10 can)	3 lb 6 oz	1 qt 2 ¼ cups (¾ No. 10 can)	9. Spread 1 lb 11 oz peaches over each pan. Peaches may be pureed. Sprinkle 4 oz (¾ cup 2 Tbsp) of topping over each pan.
				10. Bake until golden brown and muffin pulls away from sides of pan: Conventional oven: 325° F for 45 minutes Convection oven: 325° F for 35 minutes
				11. Cut each pan 5 x 5 (25 pieces). Portion is 1 piece.
SERVING:		YIELD:		VOLUME:
1 piece provides the equivalent of 1 slice of bread.		25 Servings:	5 lb 9 ½ oz (uncooked)	25 Servings:
		50 Servings:	11 lb 3 oz (uncooked)	1 quart 2 ¼ cups (batter) 1 pan
				50 Servings:
				3 quarts ½ cup (batter) 2 pans

For muffin pans:
1 qt 2 ¼ cups of batter will make 25 muffins. Portion batter with No. 16 scoop (¼ cup) into muffin pans which have been lightly coated with pan release spray or paper lined. Fill no more than two-thirds full. Portion No. 30 scoop (2 Tbsp) peaches onto each muffin. Sprinkle ½ Tbsp topping over each muffin.

Bake until golden brown:
Conventional oven: 400 °F for 18-20 minutes
Convection oven: 350 °F for 12-15 minutes
To cool, immediately remove muffins from pans and place on cooling racks.

Alternate portion sizes provide the same meal credit as the basic recipe. However, if the number of portions yielded by the alternate instructions is different than the basic recipe, the nutrient values will not match those of the basic recipe.

Marketing Guide for Selected Items:

The Marketing Guide for Selected Items provides special purchasing information on foods that will sustain trimming loss during preparation. These foods are marked with an asterisk (*) in the ingredients column of the recipe format.

In the Stir-Fry Chicken (D-18) example, you will see information given for three ingredients. Turning back **to page 8, you will see each of these is preceded by an asterisk.**



Stir-Fry Chicken

Meat-Vegetable

* See Marketing Guide

SERVING:

$\frac{3}{4}$ cup 1 tablespoon (2 rounded No. 10 scoops) provides the equivalent of 2 oz of cooked lean meat and $\frac{1}{2}$ cup of vegetable.

YIELD:

25 Servings: 11 lb 10 oz
50 Servings: 23 lb 4 oz

VOLUME:

25 Servings: 1 gallon 1 quart
50 Servings: 2 gallons 2 quarts

Marketing Guide for Selected Items

Food as Purchased for	25 Servings	50 Servings
Carrots	3 lb 7 oz	6 lb 14 oz
Mature Onions	12 oz	1 lb 8 oz
Broccoli	3 lb 8 oz	7 lb

What you need to know:

For ingredients marked with an asterisk, the quantity listed under “Weight” and “Measure” in the recipe is the EP (Edible Portion). This is the quantity required for

preparation of the needed servings and therefore does not allow for any trimming loss. Any trimming must be done before measuring.

The Marketing Guide shows the AP (As Purchased) quantity required when ordering. In our example, 3 pounds 8 ounces of broccoli must be **purchased** (AP) in order to yield 2 pounds 13 ounces (EP), the amount of fresh broccoli, chopped required in the recipe to produce 25 portions of Stir-Fry Chicken (D-18).

Stir-Fry Chicken

Meat-Vegetable

Main Dishes

D-18

Nutrients Per Serving

Calories	223	Saturated Fat	1.73 g	Iron	1.59 mg
Protein	22.53 g	Cholesterol	54 mg	Calcium	52 mg
Carbohydrate	11.82 g	Vitamin A	12105 IU	Sodium	290 mg
Total Fat	9.66 g	Vitamin C	39.8 mg	Dietary Fiber	3.3 g

Nutrients Per Serving:

As you can see in the Stir-Fry Chicken (D-18) example, this section of the recipe format gives information on 12 nutrients.

All of the recipes in this collection were analyzed for their nutrient content. For a more detailed explanation of this analysis of these recipes, see page 31 of this manual.

For information on the steps taken to reduce the amount of fat in some of these recipes, see page 32.

The nutrients values given for each recipe are:

- Calories
- Protein
- Carbohydrate
- Total Fat
- Saturated Fat
- Cholesterol
- Vitamin A
- Vitamin C
- Iron
- Calcium
- Sodium
- Dietary Fiber

Special Tips:

Some of the recipes include Special Tips. On the Stir-Fry Chicken (D-18) recipe, for example, you will find the following:

Special Tip:

For an authentic Oriental flavor, when sautéing chicken in step 7, substitute 2 Tbsp of sesame oil for 2 Tbsp of vegetable oil for each 25 servings.

Here is another example of Special Tips, this one from the recipe for Salsa (C-03):

Special Tips:

- 1) Serve with broken tortilla pieces for dipping.
- 2) An equal volume of fresh, diced tomatoes may be used in place of the canned, diced tomatoes.

As you can see from these examples, the Special Tips offer information that can help you in a variety of ways. Some, like the Special Tip in the Stir-Fry Chicken (D-18), offer advice on increasing the authenticity of the recipe. Others may:

- Offer ways to make preparation easier
- Suggest optimal methods for storage
- Give alternative serving suggestions
- Suggest appropriate garnishes
- Offer ways to improve the nutrient profile



Recipe Adjustment – Factor Method

The recipes in this package are standardized to yield both 25 and 50 servings. For example, if you look at the recipe for Chicken or Turkey Salad (E-07), you will see directions to make either 25 servings (½ cup each) or 50 servings (¼ cup each).

Since few child care centers serve exactly 25 or 50 servings, you may need to increase or decrease the quantities of ingredients to produce the number of servings you need. To help you do this, formulated steps and two



worksheets are given on the following pages that will show you how to:

1. Calculate the quantities of food needed in a recipe, and

2. Use the Marketing Guide (listed in some recipes in this package) to calculate the quantities of food needed to purchase for specific ingredients.

Chicken or Turkey Salad

Meat		Salads and Salad Dressings				E-07
Ingredients	25 Servings		50 Servings		Directions	
	Weight	Measure	Weight	Measure		
*Cooked chicken or turkey, chopped	3 lb 3 oz	2 qt 2 cups	6 lb 6 oz	1 gal 1 qt	1. Combine chicken or turkey, celery, onions, pickle relish, pepper, and dry mustard. Add salad dressing or mayonnaise. Mix lightly until well blended. Spread 2 lb 12 ¼ oz (approximately 1 qt 2 ¼ cups) into each pan (9" x 13" x 2"). For 25 servings, use 2 pans. For 50 servings, use 4 pans. 2. CCP: Cool to 70° F within 2 hours and from 70° F to 41° F or lower within an additional 4 hours. Cover. Refrigerate until service. 3. Mix lightly before serving. Portion with No. 8 scoop (½ cup).	
*Fresh celery, chopped	11 oz	2 ½ cups 2 Tbsp	1 lb 6 oz	1 qt 1 ¼ cups		
*Fresh onions, chopped OR Dehydrated onions	6 oz	1 cup OR 3 Tbsp	12 oz OR 2 ¼ oz	2 cups OR ½ cup		
Sweet pickle relish, undrained	7 ½ oz	¾ cup 2 Tbsp	15 oz	1 ¾ cups		
Ground black or white pepper		1 tsp		2 tsp		
Dry mustard		2 ¼ tsp		1 Tbsp 1 ½ tsp		
Reduced calorie salad dressing OR Lowfat mayonnaise	13 oz OR 13 oz	1 ½ cups 2 Tbsp OR 1 ½ cups 2 Tbsp	1 lb 10 oz OR 1 lb 10 oz	3 ¾ cups OR 3 ¾ cups		

* See Marketing Guide

Marketing Guide for Selected Items		
Food as Purchased for	25 Servings	50 Servings
Chicken, whole, without neck and giblets OR	8 lb 14 oz OR	17 lb 12 oz OR
Turkey, whole, without neck and giblets	6 lb 13 oz	13 lb 10 oz
Celery	14 oz	1 lb 12 oz

Recipe Adjustment – Factor Method

continued

How To Calculate the Quantities of Food Needed in a Recipe:

Each ingredient of the original recipe will need to be converted to provide the weight or volume of food to use in the adjusted recipe. Ingredient conversions can be calculated using two easy steps.

Step 1. Determine the “multiplying factor”

To calculate the multiplying factor, you will divide the number of servings you want by the number of servings in the original recipe.

$$\frac{\text{number of servings you want}}{\text{original number of servings}} = \text{multiplying factor}$$

Step 2: Determine the new weight or volume

To obtain the amount of each ingredient needed to prepare the adjusted number of servings, you will multiply the original amount of each ingredient of the recipe you are converting (weight or volume measure) by the multiplying factor.

$$\frac{\text{original quantity (calculate each ingredient separately)}}{\text{multiplying factor}} = \text{adjusted amount}$$

Example: Chicken or Turkey Salad

Pages 19 to 26 provide several examples using the factor method for recipe adjustment.

Step 1: Determining the Multiplying Factor (One Example)

Using the recipe for Chicken or Turkey Salad (E-07), we are going to determine the multiplying factor. Our original recipe provides 25 servings, and we want 60 servings.

Make the following calculation:

$$\frac{60}{\text{number of servings you want}} \div \frac{25}{\text{original number of servings}} = \frac{2.4}{\text{multiplying factor}}$$

Do not round the multiplying factor. The multiplying factor will be used to adjust the weights and volumes of each ingredient in the recipe.

Recipe Adjustment – Factor Method

continued

Examples continued

Step 2: Determine the New Amount – By Weight (Two Examples)

Using the recipe for Chicken or Turkey Salad (E-07), we are going to convert the amount of two ingredients by weight. Our original recipe provides 25 servings and we want 60 servings.

Example 1, By Weight – Fresh Celery, Chopped

The recipe specifies 11 ounces of fresh, chopped celery for 25 servings. The multiplying factor obtained on page 19 to provide 60 servings is 2.4.

Make the following calculation:

$$\frac{11 \text{ ounces}}{\text{original quantity}} \quad \times \quad \frac{2.4}{\text{multiplying factor}} \quad = \quad \frac{26.4 \text{ ounces}}{\text{adjusted amount}}$$

Change 26.4 ounces into the equivalent weight in pounds and ounces

Using the “Common Weights (Ounces to Pounds)” table on page 35, you can determine that 26.4 ounces is 1 lb 10.4 ounces.

$$26.4 \text{ oz} - 16 \text{ oz (1 lb)} = 10.4 \text{ oz}$$

$$\text{therefore, } 26.4 \text{ oz} = 1 \text{ lb } 10.4 \text{ oz}$$

It is best not to round the new values. Minimal rounding is acceptable as long as the value is rounded up.

If your scale cannot weigh to the accuracy of 0.4 ounces, round up to the next nearest measurable amount. In this example, the decimal 0.4 was increased to one half ounce.

The adjusted recipe for 60 servings of Chicken or Turkey Salad (E-07) will need 1 lb 10 ½ oz of fresh, chopped celery.

Recipe Adjustment – Factor Method

continued

Example 2, By Weight – Cooked Chicken or Turkey

The recipe specifies 3 lb 3 oz of cooked chicken or turkey for 25 servings. The multiplying factor obtained on page 19 to provide 60 servings is 2.4.

Change the original weight into one unit of measure:

In this example, the original weight of the cooked chicken or turkey has two units of measure: pounds and ounces. Before you can convert the amount needed for the adjusted recipe, you need to change the weight into one unit of measure only. As long as you convert the weight to either all ounces or all pounds, it does not matter which unit you choose. As you can see below, we chose to convert the weight to all ounces for this example.

$$\begin{array}{r} 3 \text{ lb} \times 16 \text{ oz/lb} = 48 \text{ oz} \\ (+) \qquad \qquad \qquad 3 \text{ oz} \\ \hline 3 \text{ lb } 3 \text{ oz} \qquad = 51 \text{ oz} \end{array}$$

Make the following calculation:

$$\frac{51 \text{ oz}}{\text{original quantity}} \quad \times \quad \frac{2.4}{\text{multiplying factor}} \quad = \quad \frac{122.4 \text{ oz}}{\text{adjusted amount}}$$

Change 122.4 ounces into the equivalent weight expressed in pounds and ounces:

Using the “Common Weights (Ounces to Pounds)” table on page 35, you can determine that 122.4 ounces is 7 lb 10.4 ounces.

$$\frac{122.4 \text{ oz}}{16 \text{ oz/lb}} = 7.65 \text{ lb}$$

Change 7.65 pounds to pounds and ounces:

- 1) First determine how many ounces 0.65 pound is by multiplying it by 16 ounces per pound.

$$0.65 \times 16 \text{ oz/lb} = 10.4 \text{ oz}$$

- 2) If your scale cannot weigh to the accuracy of 0.4 ounces, round up to the next nearest measurable amount.

In this example, the decimal 0.4 was increased to one half ounce (0.5 oz).

- 3) Combine the pounds and ounces.

$$7 \text{ lb } 10.5 \text{ oz}$$

It is best not to round the new values. Minimal rounding is acceptable as long as the value is rounded up.

The adjusted recipe for 60 servings of Chicken or Turkey Salad (E-07) will need 7 lb 10 ½ oz of cooked chicken or turkey.

Recipe Adjustment – Factor Method

continued

Step 2: Determine the New Amount – By Volume (Two Examples)

Using the recipe for Chicken or Turkey Salad (E-07), we are going to convert the amount of two ingredients by volume. Our original recipe provides 25 servings, and we want 60 servings.

Example 1, By Volume – Reduced-Calorie Salad Dressing

The recipe specifies 1 ½ cups 2 Tbsp of reduced-calorie salad dressing for 25 servings. The multiplying factor obtained on page 19 to provide 60 servings is 2.4.

Change the original volume into one unit of measure:

In this example, the original volume has two units of measure: cups and tablespoons. Before you can convert the amount needed for the adjusted recipe, you need to change the volume into one unit of measure only. As long as you convert the volume into only one unit of measure, it does not matter which unit you choose. As you can see below, we chose to convert the volume to all cups for this example.

$$\begin{array}{r} 2 \text{ Tbsp} \div 16 \text{ Tbsp/cup} = 0.125 \text{ cups} \\ (+) \qquad \qquad \qquad 1.5 \text{ cups} \\ \hline 1 \frac{1}{2} \text{ cups } 2 \text{ Tbsp} \qquad = 1.625 \text{ cups} \end{array}$$

Make the following calculation:

$$\begin{array}{r} 1.625 \text{ cups} \\ \hline \text{original quantity} \end{array} \quad \times \quad \begin{array}{r} 2.4 \\ \hline \text{multiplying factor} \end{array} \quad = \quad \begin{array}{r} 3.90 \text{ cups} \\ \hline \text{adjusted amount} \end{array}$$

Change 3.90 cups into a more measurable volume:

3.90 cups is not an amount that can be easily measured. Using the “Fractions to Decimal Equivalents” table on page 35, you can see that 0.9 is greater than 0.875, and should be increased to the next whole number. Increase 3.90 cups to the next higher measurable amount, 4.0 cups (1 qt).

It is best not to round the new values. Minimal rounding is acceptable as long as the value is rounded up.

The adjusted recipe for 60 servings of Chicken or Turkey Salad (E-07) will need 1 quart of reduced-calorie salad dressing.

Recipe Adjustment – Factor Method

continued

Example 2, By Volume – Dry Mustard

The recipe specifies 2 $\frac{1}{4}$ teaspoons of dry mustard for 25 servings. The multiplying factor obtained on page 19 to provide 60 servings is 2.4.

Change the fraction to the decimal equivalent (see “Fractions to Decimal Equivalents” table on page 35):

$$\frac{2 \frac{1}{4} \text{ tsp}}{\text{(amount for 25 servings)}} = \frac{2.25 \text{ tsp}}{\text{(decimal equivalent)}}$$

Make the following calculation:

$$\frac{2.25 \text{ tsp}}{\text{original quantity}} \times \frac{2.4}{\text{multiplying factor}} = \frac{5.4 \text{ tsp}}{\text{adjusted amount}}$$

Change 5.4 tsp into a more appropriate unit:

5.4 teaspoons is not an amount that can be easily measured. Using the “Volume Measures of Equivalency” table on page 36, you can see that tablespoons is a more appropriate measure.

$$5.4 \text{ tsp} \div 3 \text{ tsp/Tbsp} = 1.8 \text{ Tbsp}$$

Change 1.8 Tbsp into a more measurable volume:

1.8 tablespoons is not an amount that can be easily measured. Increase 1.8 Tbsp to 2 Tbsp.

It is best not to round the new values. Minimal rounding is acceptable as long as the value is rounded up.

The adjusted recipe for 60 servings of Chicken or Turkey Salad (E-07) will need 2 Tbsp of dry mustard.

For more information on ways to modify recipes, see *USDA Recipes for Schools*. This publication can be viewed or downloaded at teamnutrition.usda.gov/Resources/usda_recipes.html.

Recipe Adjustment – Factor Method

continued

Using the Marketing Guide to Calculate the Quantities of Food Needed to Purchase:

Some recipes call for food items that need preparation after purchasing and before being used in a recipe. For example, a recipe might call for 2 cups of peeled, sliced apples. Since it is uncommon to buy peeled, sliced, fresh apples you need to start with whole, fresh apples. The Marketing Guide tells you what quantity of whole, fresh apples to purchase in order to obtain 2 cups of peeled, sliced apples needed for the recipe.

Not all recipes have a Marketing Guide.

Only the recipes that use ingredients in a form different from the as purchased (AP) form will have Marketing Guide information.

If you are adjusting a recipe to obtain fewer or more than 25 or 50 servings, you will also need the adjusted quantities listed in the Marketing Guide.

Using the recipe for Chicken or Turkey Salad (E-07), we are going to convert the amount of celery listed in the Marketing Guide. Our original recipe provides 25 servings, and we want 60 servings.

The Marketing Guide specifies 14 oz of celery (AP) for 25 servings. When calculating the adjustments for the Marketing Guide amounts, use the same multiplying factor that you used to calculate the amounts needed for the recipe. The multiplying factor obtained on page 19 to provide 60 servings is 2.4.

Make the following calculation:

$$\frac{14 \text{ oz celery (AP)}}{\text{original quantity}} \quad \times \quad \frac{2.4}{\text{multiplying factor}} \quad = \quad \frac{33.6 \text{ oz}}{\text{adjusted amount}}$$

Change 33.6 ounces into the equivalent weight expressed in pounds.

$$\frac{33.6 \text{ oz}}{16 \text{ oz/lb}} = 2.1 \text{ lb}$$

Recipe Adjustment – Factor Method

continued

Completed Worksheet for Adjusting the Chicken or Turkey Salad (E-07) Recipe From 25 to 60 Servings:

This worksheet includes the examples shown on pages 19 to 25.

Recipe Conversion Worksheet

Recipe Title: Chicken or Turkey Salad (E-07)	Multiplying Factor	2.4
Original Number of Servings (Old Yield) <u>25</u>	Number of Servings You Want	<u>60</u>

Recipe Ingredient	Old Quantity From Recipe	Old Quantity (in One Unit of Measure)	Times	Multiplying Factor	Equals	Adjusted Amount	New Quantity (To Use in Recipe)
Cooked chicken or turkey, chopped	3 lb 3 oz	51 oz	X	2.4	=	122.4 oz	7 lb 10 ½ oz
Fresh celery, chopped	11 oz	11 oz	X	2.4	=	26.4 oz	1 lb 10 ½ oz
Fresh onions, chopped	6 oz	6 oz	X	2.4	=	14.4 oz	14 ½ oz
Sweet pickle relish, undrained	7 ½ oz	7.5 oz	X	2.4	=	18 oz	1 lb 2 oz
Ground pepper	1 tsp	1 tsp	X	2.4	=	2.4 tsp	2 ½ tsp
Dry mustard	2 ¼ tsp	2.25 tsp	X	2.4	=	5.4 tsp	2 Tbsp
Reduced-calorie salad dressing	1 ½ cups 2 Tbsp	1.625 cups	X	2.4	=	3.9 cups	4 cups (1 quart)

Marketing Guide Conversion Worksheet

Ingredient As Purchased (AP)	Old Quantity From Marketing Guide	Old Quantity (in One Unit of Measure)	Times	Multiplying Factor	Equals	Adjusted Amount	New Quantity To Purchase
Chicken, whole, without neck and giblets	8 lb 14 oz	8.875 lb	X	2.4	=	21.3 lb	21 lb 5 oz
OR	OR	OR	OR	OR	OR	OR	OR
Turkey, whole, without neck and giblets	6 lb 13 oz	6.8125 lb	X	2.4	=	16.35 lb	16 lb 6 oz
Celery, chopped	14 oz	14 oz	X	2.4	=	33.6	2 lb 2 oz

Recipe Adjustment – Factor Method

continued

Recipe Conversion Worksheet

Recipe Title: _____ Multiplying Factor _____
 Original Number of Servings (Old Yield) _____ Number of Servings You Want _____

Recipe Ingredient	Old Quantity From Recipe	Old Quantity (in One Unit of Measure)	Times	Multiplying Factor	Equals	Adjusted Amount	New Quantity (To Use in Recipe)
			X		=		
			X		=		
			X		=		
			X		=		
			X		=		
			X		=		
			X		=		

Marketing Guide Conversion Worksheet

Ingredient As Purchased (AP)	Old Quantity From Marketing Guide	Old Quantity (in One Unit of Measure)	Times	Multiplying Factor	Equals	Adjusted Amount	New Quantity To Purchase
			X		=		
			X		=		
			X		=		

Recipe Adjustment – Factor Method continued

Nonstandardized Recipes:

As we have already seen, the total yield of each of the recipes has been calculated and is indicated on the recipe. However, there may be times when you want to use this same method to adjust the yield of a nonstandardized recipe. In these instances, you may need to do some extra calculations.

For example, in working with nonstandardized recipes, it is a good idea to confirm the total yield of the recipe by adding together the quantities of all ingredients used.

In addition, you may need to convert all of the quantities to ounces before you can calculate the total yield. For your convenience, this manual includes a chart with basic units of measure and their equivalencies on page 36.



More Information on the Nutrient Analysis

Using the nutrient analysis, you can see at a glance what an individual serving of each recipe provides in terms of the following 12 nutrients:

Calories
Protein
Carbohydrate
Total Fat
Saturated Fat
Cholesterol
Vitamin A
Vitamin C
Iron
Calcium
Sodium
Dietary Fiber

This information can help you plan balanced, nutritious meals. For example, if you decide to serve Stir-Fry Chicken (D-18):

- You may wish to select an item higher in iron to serve as a second choice since one serving of the Stir-Fry contains only 1.59 mg of iron.
- And, since the vitamin A content of the Stir-Fry Chicken (D-18) is high, you may decide to offer a fruit dish that is high in vitamin C for dessert.

The nutrient analysis was done by computer, using:

- A USDA-approved nutrient analysis software program
- The National Nutrient Database for Child Nutrition Programs, Version 8
- The USDA's National Nutrient Database for Standard Reference, Release 16

Here is some additional information on the nutrient analysis that may be helpful as you work with the recipes:

- Each recipe was analyzed for its nutritive value using **primary ingredients only**. Alternate and optional ingredients were not included.
- The type and quantity of each primary ingredient was entered into the nutrient analysis software program based on the **market form** or purchase state given in the recipe — for example, fresh, frozen, or canned.
- Adjustments for yield, nutrient retention, and moisture/fat changes were also calculated using the *yield factor method*. As a result, the final nutrient analysis of the recipe reflects the final “cooked or prepared” product.

Yield Factor Method:

To illustrate this process, let us look at some of the steps involved in doing the nutrient analysis using the yield factor method for the Stir-Fry Chicken (D-18) recipe, using carrots as an example. The yield factor method uses the nutrient profile of food “as consumed” and the yield from the *Food Buying Guide for Child Nutrition Programs*.

The recipe calls for “fresh carrots” as a primary ingredient but the carrots are consumed in the cooked form. The food code selected from the USDA-approved nutrient analysis software program — and entered into the computer — was “Carrots, cooked.”

The quantity of “cooked carrots” was entered based on the yield of cooked carrots from the amount of “fresh carrots” based on the *Food Buying Guide*.

Tips on Modifying and Standardizing Recipes

Fat can be reduced in many recipes without losing flavor.

As you work with these recipes, you will find that many have reduced levels of fat compared to the traditional version of the recipe. This is one important way the recipes are consistent with the *Dietary Guidelines*. The recipes successfully minimize fat without losing flavor because of careful attention given to both:

- Ingredients, and
- Cooking techniques.

In developing and testing the recipes, USDA made sure that many ingredients were purchased in a low-fat form, provided the overall quality of the product was not affected. For example:

- All raw meat ingredients were specified to be low-fat. The ground beef, for instance, had no more than 20 percent fat. Where possible, it was cooked prior to adding it to the product so the fat could be drained.
- Chicken was either purchased skinless or the skin was removed prior to cooking.
- Mayonnaise and dairy products, such as milk, yogurt, and cheese, were purchased in the low-fat form provided this did not lessen the final quality.

In addition, main entrees were prepared with a minimal amount of fat. For example:

- No products were fried.
- All sautéed items were prepared with a small amount of oil.

Baked goods were also specially prepared. For example:

- The amount of margarine or butter was reduced by substituting low-fat yogurt and applesauce for a percentage of the fat.
- Whole eggs were replaced with egg whites.
- Baking pans were either ungreased or lightly sprayed with pan release spray.

You can use these same techniques to reduce fat without losing flavor in the recipes you already have.

Here are some ways to keep *trans* fat low:

- Choose margarine that has little or no *trans* fat.
- See the “Ingredient Substitutions” table on page 48 for ideas to replace fat.

Some tips on modifying and standardizing recipes:

Any recipe can be modified to reflect new tastes or changing needs. The recipes in this collection may give you ideas for modifying the recipes you are already using — for example, by adding or substituting new

ingredients or changing your cooking techniques.

As you make changes, it is important to modify first, then standardize.

Standardized recipes have many advantages:

They have been tried, adapted, and retried several times for use by a given foodservice operation and have been found to produce the same good results and yield every time when the exact procedures are used with the same type of equipment and the same quantity and quality of ingredients.

Using a standardized recipe ensures that:

- The same amount of product is produced each time.
- The same portion size is provided each time.

Menu planning can be more consistent because:

- There is a predictable yield.
- Costs are easier to control.
- Inventory is easier to control.

In addition, when the same good results can be produced time after time:

- Your foodservice preparers have more confidence in what they are doing and need less supervision, and

Tips on Modifying and Standardizing Recipes

continued

- Food preparers can be sure the nutrient analysis of a recipe will be accurate as long as ingredients and preparation methods remain the same.

When you decide to modify a USDA-standardized recipe, start by making 25 portions. In addition:

- Change **only one ingredient** at a time. Keep other ingredients the same as in the original recipe.
- Record clear descriptions of foods substituted in exact amounts.
- If increasing or decreasing an ingredient, do so in increments of $\frac{1}{4}$ to $\frac{1}{2}$ of the amount called for in the original recipe.
- Follow preparation instructions closely and record any changes you may make.

- Do not make further changes or a larger size recipe until the first modification has produced a high-quality product.

Once you have successfully prepared the smaller portions of a recipe you are modifying:

- Set up taste panels using the children in your care to evaluate the product for appearance, consistency, texture, flavor, and overall acceptability.
- Reproduce at 25 and 50 servings before increasing or decreasing the recipe to the number needed for your meal service.
- Your foodservice preparers will then understand how and why recipes have been modified.



It is important to also:

- Weigh the total volume of recipes at 25 and 50 servings and record the weight.
- Weigh each serving and record the weight.

The weight of the total recipe and the weight of each serving are important for nutrient analysis.

For more information about standardizing recipes:

See *Measuring Success for Standardized Recipes* available from the National Food Service Management Institute. The complete manual is available online at www.nfsmi.org. Type in Measuring Success in the search box at the top of the page. Or contact the NFSMI at:

National Food Service Management
Institute
The University of Mississippi
P.O. Drawer 188
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www.nfsmi.org

Converting Common Measures, Common Weights, and Metric Equivalents

The tables on pages 35 and 36 will help you convert parts of tablespoons, cups, quarts, gallons, and pounds to accurate measures, weights, or metric units.

Use the Volume Measures of Equivalency table to change teaspoons to tablespoons, tablespoons to cups, cups to quarts, quarts to gallons, or any combination.

Use the Common Weights Table to change ounces to parts of pounds, or parts of pounds to ounces. The following examples show how this works.

Example 1: Common Measures

Using the “Volume Measures of Equivalency” table on page 36, determine the number of cups in $\frac{1}{8}$ gallon, using these steps:

1. Look down the gallon column to $\frac{1}{8}$ gal.
2. Next, move across the table to the cups column. The table shows that:
 $\frac{1}{8}$ gal = 2 cups

These steps can be followed in reverse order to find, for example, the part of a gallon which equals 2 cups.

Example 2: Common Weights

Using the “Common Weights (Ounces to Pounds)” table on page 35, change ounces to parts of pounds or parts of pounds to ounces.

1. To determine what part of a pound 8 ounces is, look down the table to 8 oz.
2. Note that the table shows that 8 oz = $\frac{1}{2}$ lb.

Example 3: Metric Weights

Using the “Common Weights to Metric Weights” table on page 35, change ounces to grams.

1. To determine how many ounces are equivalent to 100 grams, look down the table to 1 oz.
2. Note that the table shows that 1 oz = 28.35 grams.
3. Divide 100 grams by 28.35 grams/ounce.
 $100 \text{ g} \div 28.35 \text{ g/oz} = 3.53 \text{ oz.}$

Converting Common Measures, Common Weights, and Metric Equivalents continued

Fractions To Decimal Equivalents

Fraction	to	Decimal
$\frac{1}{16}$	=	0.0625
$\frac{1}{8}$	=	0.125
$\frac{1}{4}$	=	0.25
$\frac{1}{3}$	=	0.333
$\frac{3}{8}$	=	0.375
$\frac{1}{2}$	=	0.50
$\frac{5}{8}$	=	0.625
$\frac{2}{3}$	=	0.666
$\frac{3}{4}$	=	0.75
$\frac{7}{8}$	=	0.875
$\frac{8}{8}$	=	1.0

Common Weights (Ounces to Pounds)

Ounces (oz)	to	Pounds (lb)
16 oz	=	1 lb
14 oz	=	$\frac{7}{8}$ lb
12 oz	=	$\frac{3}{4}$ lb
10 $\frac{2}{3}$ oz	=	$\frac{2}{3}$ lb
10 oz	=	$\frac{5}{8}$ lb
8 oz	=	$\frac{1}{2}$ lb
6 oz	=	$\frac{3}{8}$ lb
5 $\frac{1}{3}$ oz	=	$\frac{1}{3}$ lb
4 oz	=	$\frac{1}{4}$ lb
2 oz	=	$\frac{1}{8}$ lb
1 oz	=	$\frac{1}{16}$ lb

Common Weights To Metric Weights

Common Weight	to	Metric Equivalent
2.2 lb	=	1 kilogram (kg)
2 lb	=	907 grams (g)
1 lb	=	453.6 g
8 oz	=	226.8 g
4 oz	=	113.4 g
1 oz	=	28.35 g
$\frac{3}{4}$ oz	=	21 g
$\frac{1}{2}$ oz	=	14 g
$\frac{1}{4}$ oz	=	7 g



Common Volume To Metric Volume

Common Volume	to	Metric Equivalent
1.05 qt	=	1 liter (l)
1 quart	=	946 milliliters (ml)
1 cup	=	237 ml
$\frac{1}{2}$ cup	=	118 ml
$\frac{1}{4}$ cup	=	59 ml

Converting Common Measures, Common Weights, and Metric Equivalents continued

Volume Measures of Equivalency

Teaspoons tsp		Tablespoons Tbsp		Cups c		Quarts qt		Gallons gal		Fluid Ounce fl oz
3/4 tsp	=	1/4 Tbsp	=	1/64 c	=	1/256 qt	=	1/1024 gal	=	1/8 fl oz
1 tsp	=	1/3 Tbsp	=	1/48 c	=	1/192 qt	=	1/768 gal	=	1/6 fl oz
1-1/8 tsp	=	3/8 Tbsp	=	3/128 c	=	3/512 qt	=	3/2048 gal	=	3/16 fl oz
1-1/2 tsp	=	1/2 Tbsp	=	1/32 c	=	1/128 qt	=	1/512 gal	=	1/4 fl oz
1-7/8 tsp	=	5/8 Tbsp	=	5/128 c	=	5/512 qt	=	5/2048 gal	=	5/16 fl oz
2 tsp	=	2/3 Tbsp	=	1/24 c	=	1/96 qt	=	1/384 gal	=	1/3 fl oz
2-1/4 tsp	=	3/4 Tbsp	=	3/64 c	=	3/256 qt	=	3/1024 gal	=	3/8 fl oz
2-1/2 tsp	=	7/8 Tbsp	=	7/128 c	=	7/512 qt	=	7/2048 gal	=	7/16 fl oz
3 tsp	=	1 Tbsp	=	1/16 c	=	1/64 qt	=	1/256 gal	=	1/2 fl oz
6 tsp	=	2 Tbsp	=	1/8 c	=	1/32 qt	=	1/128 gal	=	1 fl oz
12 tsp	=	4 Tbsp	=	1/4 c	=	1/16 qt	=	1/64 gal	=	2 fl oz
16 tsp	=	5-1/3 Tbsp	=	1/3 c	=	1/12 qt	=	1/48 gal	=	2-2/3 fl oz
18 tsp	=	6 Tbsp	=	3/8 c	=	3/32 qt	=	3/128 gal	=	3 fl oz
24 tsp	=	8 Tbsp	=	1/2 c	=	1/8 qt	=	1/32 gal	=	4 fl oz
30 tsp	=	10 Tbsp	=	5/8 c	=	5/32 qt	=	5/128 gal	=	5 fl oz
32 tsp	=	10-2/3 Tbsp	=	2/3 c	=	1/6 qt	=	1/24 gal	=	5-1/3 fl oz
36 tsp	=	12 Tbsp	=	3/4 c	=	3/16 qt	=	3/64 gal	=	6 fl oz
42 tsp	=	14 Tbsp	=	7/8 c	=	7/32 qt	=	7/128 gal	=	7 fl oz
48 tsp	=	16 Tbsp	=	1 c	=	1/4 qt	=	1/16 gal	=	8 fl oz
64 tsp	=	21-1/3 Tbsp	=	1-1/3 c	=	1/3 qt	=	1/12 gal	=	10-2/3 fl oz
72 tsp	=	24 Tbsp	=	1-1/2 c	=	3/8 qt	=	3/32 gal	=	12 fl oz
96 tsp	=	32 Tbsp	=	2 c	=	1/2 qt	=	1/8 gal	=	16 fl oz
120 tsp	=	40 Tbsp	=	2-1/2 c	=	5/8 qt	=	5/32 gal	=	20 fl oz
128 tsp	=	42-2/3 Tbsp	=	2-2/3 c	=	2/3 qt	=	1/6 gal	=	21-1/3 fl oz
144 tsp	=	48 Tbsp	=	3 c	=	3/4 qt	=	3/16 gal	=	24 fl oz
168 tsp	=	56 Tbsp	=	3-1/2 c	=	7/8 qt	=	7/32 gal	=	28 fl oz
192 tsp	=	64 Tbsp	=	4 c	=	1 qt	=	1/4 gal	=	32 fl oz
256 tsp	=	85-1/3 Tbsp	=	5-1/3 c	=	1-1/3 qt	=	1/3 gal	=	42-2/3 fl oz
288 tsp	=	96 Tbsp	=	6 c	=	1-1/2 qt	=	3/8 gal	=	48 fl oz
384 tsp	=	128 Tbsp	=	8 c	=	2 qt	=	1/2 gal	=	64 fl oz
480 tsp	=	160 Tbsp	=	10 c	=	2-1/2 qt	=	5/8 gal	=	80 fl oz
512 tsp	=	170-2/3 Tbsp	=	10-2/3 c	=	2-2/3 qt	=	2/3 gal	=	85-1/3 fl oz
576 tsp	=	192 Tbsp	=	12 c	=	3 qt	=	3/4 gal	=	96 fl oz
672 tsp	=	224 Tbsp	=	14 c	=	3-1/2 qt	=	7/8 gal	=	112 fl oz
768 tsp	=	256 Tbsp	=	16 c	=	4 qt	=	1 gal	=	128 fl oz

Basic Cuts and Shapes

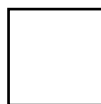
Small dice:

$\frac{1}{4}$ inch cube



Medium dice:

$\frac{1}{2}$ inch cube



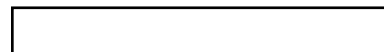
Large dice:

$\frac{3}{4}$ inch cube



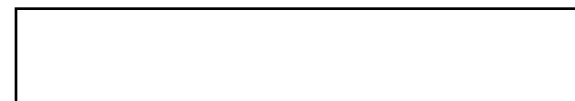
Julienne:

$\frac{1}{4}$ inch square by 1 to 2 inches long



French fry:

$\frac{1}{4}$ to $\frac{1}{2}$ inch by 3 to 4 inches and longer



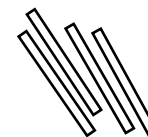
Mince:

To chop into very fine pieces



Shred:

To cut into thin strips by using a grater or chef's knife



Chop:

To cut into pieces of roughly the same size



Decimal Equivalents for Fractions (of 1 Pound, 1 Cup, or 1 Gallon)

Here is a way to convert between ounces and pounds, tablespoons and cups, and cups and gallons.

decimal equivalents are part of 1 cup. If the units are cups, the decimal equivalents are part of 1 gallon.

same horizontal line to the column headed “+ 1/2 unit,” which shows that 10 1/2 ounces is equal to 0.66 pound.

To use the table, read whole units at the left side and the fraction or part of the unit at the top of the table. If the units are ounces, the decimal equivalents in the table are parts of 1 pound. If the units are tablespoons, the

Examples:
Ounces to pounds: To convert 10 1/2 ounces to the corresponding decimal equivalent of a pound, find 10 in the first column on the left. Next, follow right on the

Pounds to ounces: To convert 0.53 pound to ounces, find 0.53 in the body of the table. Follow left on the same horizontal line to the whole number, i.e., 8. Next, read the fraction of an ounce from the top number of the column in which 0.53 was found, i.e., 1/2. Thus, 0.53 pound equals 8 1/2 ounces.

Whole units are on the left. The fraction or part of the unit is to the right.

If the whole units are: the decimal equivalents are part of:
 ounces 1 pound
 tablespoons 1 cup
 cups 1 gallon

FRACTION OR PART OF THE UNIT

NUMBER OF UNITS	Unit	+ 1/4 of unit	+ 1/3 of unit	+ 1/2 of unit	+ 2/3 of unit	+ 3/4 of unit
0	-----	0.02	0.02	0.03	0.04	0.05
1	0.06	.08	.08	.09	.10	.11
2	.12	.14	.15	.16	.17	.17
3	.19	.20	.21	.22	.23	.23
4	.25	.27	.27	.28	.29	.30
5	.31	.33	.33	.34	.35	.36
6	.38	.39	.40	.41	.42	.42
7	.44	.45	.46	.47	.48	.48
8	.50	.52	.52	.53	.54	.55
9	.56	.58	.58	.59	.60	.61
10	.62	.64	.65	.66	.67	.67
11	.69	.70	.71	.72	.73	.73
12	.75	.77	.77	.78	.79	.80
13	.81	.83	.83	.84	.85	.86
14	.88	.89	.90	.91	.92	.92
15	.94	.95	.96	.97	.98	.98
16	1.00	1.02	1.02	1.03	1.04	1.05

Keeping Food Safe To Eat

Know and Follow Health Department Codes

Food handling, sanitation, and safety in child care operations are regulated by State, county, and city health department codes. Become familiar with the regulations to prevent foodborne illness.

Use Safe Handling and Storage Techniques

- Be aware of the condition in which perishable foods are purchased and delivered. Inspect foods to make sure frozen foods are frozen solid and refrigerated foods are at the appropriate temperatures.
- Improper temperature control before and after purchasing or delivery can shorten a food's shelf life.
- Date incoming food items. Rotate stock properly. Placing oldest food out front will encourage the use of foods on a "first-in, first-out" (FIFO) basis.
- Keep a daily log of temperature readings. Temperature logs should be maintained for cooking, cooling, holding, and reheating procedures and for refrigerators and freezers.

How quickly do bacteria grow? The following numbers will give you an idea.

BACTERIA DOUBLE...

At this temperature:	In this amount of time:
Room	90 °F every 30 minutes
	70 °F every hour
	60 °F every 2 hours
	50 °F every 3 hours
Refrigerator	40 °F every 6 hours
	32 °F every 20 hours
Freezing	28 °F every 60 hours

The four core messages of Clean, Separate, Cook, and Chill will help you keep foods safe to eat.



CLEAN

Practice good personal hygiene

- Adequately restrain hair by using a hairnet or hat.
- Wash hands frequently and properly, for at least 20 seconds with soap and hot water. Use a separate hand sink, not sinks used for food preparation or dishwashing. Always wash hands after touching hair or face.
- Use disposable towels when drying hands. Discard disposable towels after each use.
- Cough or sneeze into disposable tissues ONLY, and wash hands afterwards. If you sneeze on food or food production areas, discard the food and clean and sanitize the food production area.
- Persons with colds or other communicable diseases should **not** be permitted to work in food preparation areas.

Keeping Food Safe To Eat

continued

- All superficial cuts should be covered with a bandage and a disposable glove.
- Any person with an infected cut or skin infection should **not** be permitted to work with food.
- Use disposable gloves properly. Wash hands before putting on gloves and avoid touching skin, carts, refrigerator, freezer, or oven doors or any unclean surfaces. Throw the gloves away after using or touching anything other than food.

Keep equipment and facilities clean and sanitized

- Keep all equipment such as cutting boards, can openers, grinders, slicers, and work surfaces clean and sanitized. Sanitize equipment and work surfaces between use with raw and cooked foods. Check with local health department codes for a list of sanitizing agents.
- Use plastic cutting boards. Purchase an adequate number of cutting boards to prevent cross-contamination during food production.

- Wash and sanitize cutting boards in a dishwasher whenever possible. Air dry.
- Use a “three-compartment sink” (described below) to manually wash and sanitize dishes, pots, pans, and utensils.

Commercial sanitizers can be used instead of bleach. Test the chemical sanitizer concentration by using an appropriate test

kit. Check local health department codes for a list of sanitizing agents.

- When using a mechanical dishwasher, follow manufacturer’s directions for proper wash and rinse temperatures.
- *Air drying is recommended:* drying with a towel swabs contaminants over the surface.

WASH AND SANITIZE WITH THREE SINKS

Scrape and pre-rinse items before placing in the three-compartment sink.

Use a three-compartment sink to wash and sanitize dishes, pots, pans, and utensils:

SINK 1: **WASH** with detergent in water that is 110 °F or above, or the temperature specified by the detergent manufacturer.

SINK 2: **RINSE** in *clean* water.

SINK 3: **SANITIZE** with a commercial sanitizing solution mixed at a concentration specified on the manufacturer’s label or for 1 minute in a 120 °F solution of appropriate concentration of chlorine bleach (1 tablespoon unscented bleach per gallon of water). Or sanitize by immersing in hot water at or above 171 °F for 30 seconds.

Keeping Food Safe To Eat

continued

Wash Fresh Fruits and Vegetables

- Wash your hands properly before preparing fresh fruits and vegetables.
- Wash all fresh fruits and vegetables thoroughly with cold running water.
- Since many fresh fruits and vegetables are served without being cooked, thorough cleaning is critical in preventing foodborne illness.
- For more information on purchasing, preparing, and storing fruits and vegetables, see the *Food Buying Guide for Child Nutrition Programs* at teamnutrition.usda.gov/Resources/foodbuyingguide.html, and *Fruits and Vegetables Galore: Helping Kids Eat More* at www.fns.usda.gov/tn/Resources/fv_galore.html.



SEPARATE

Avoid cross-contamination

- Use appropriate utensils to pick up and handle food.
- Never touch ready-to-eat foods with your bare hands.
- If using hands, wear disposable plastic gloves and do not touch anything unclean with the gloves. Throw the gloves away after using or touching anything other than food.
- As a food safety precaution, you may want to use two sets of cutting boards: one for

meats, and one for vegetables and fruits. Buying plastic cutting boards in different colors will help to keep them straight.

- Prevent juices from raw meat, poultry, or seafood from dripping on ready-to-eat foods, such as salad greens, either in the refrigerator or during preparation.
- Store raw foods that must be cooked prior to serving on the refrigerator's *bottom* shelf to prevent their juices from coming in contact with other foods.
- Store ready-to-eat foods *above* raw uncooked foods.



COOK

Follow directions

- Follow the directions on the food labels to ensure that proper cooking methods, time, and temperature are used. Also, refer to recipes for specific cooking instructions.

Cook thoroughly

- Cook meat and poultry to the doneness temperature and time recommended by the label or recipe.
- To make sure that meat and poultry are cooked all the way through, use a food thermometer.
- Calibrate thermometers on a regular basis.

Cook completely

- DO NOT partially cook foods. Partial cooking may encourage bacteria to grow before cooking is completed.
- Cook foods to minimal required internal temperatures for safety.

Minimum Internal Temperatures for Safety

(Based on the 2005 FDA Food Code)

165 °F for 15 seconds	Poultry, stuffing, stuffed fish, pork or beef; pasta stuffed with eggs, pork, casseroles, reheating leftovers.
155 °F for 15 seconds	Ground meats, beef, lamb, veal, pork, pasteurized eggs held on steam table, cubed or Salisbury steaks, fish nuggets or sticks
145 °F for 15 seconds	Seafood, beef, pork, veal steaks, & roasts (medium rare), eggs cooked to order and served immediately.
135 °F for 15 seconds	Fresh, frozen, or canned fruits and vegetables that are going to be held on a steam table or in a hot box.

Keep hot foods above 135 °F

- Bacteria can grow rapidly between 41 °F and 135 °F, which includes room temperature. This is known as the danger zone.
- Avoid holding foods in this temperature danger zone. If the serving of a hot food must be delayed, keep it at a holding temperature of 135 °F or above.

- In addition, limit the amount of holding time. Do not hold a food in the temperature danger zone for longer than 2 hours. After **2 hours** discard the food.

CHILL

Refrigerator storage - keep cold foods at 41 °F or below

- Check refrigerators and freezers frequently with an appliance thermometer. The refrigerator should register 41 °F or below. Keep a daily log of temperature readings.
- Cool hot food from 135 °F to 70 °F within 2 hours. If during the cooling process food temperatures do not reach 70 °F, immediate action is required or food must be discarded. Cool foods from 70 °F to 41 °F or below within 4 hours. DO NOT ALLOW ANY FOODS TO COOL AT ROOM TEMPERATURE.
- Refrigerate or freeze properly cooled leftovers in covered, 2-inch shallow containers.
- Divide large containers of soups, sauces, or vegetables so that the smaller portions will cool more quickly. Stirring throughout the chilling process will shorten the total cooling time. An ice paddle or ice bath will also help to rapidly cool foods.
- Leave airspace around containers or packages to allow circulation of cold air so that rapid cooling is ensured.

Keeping Food Safe To Eat

continued

- Date foods so that the length of storage time is easily known. DO NOT taste old leftovers. *When in doubt, throw it out!*

Freezer storage

- Freeze all food items that you don't plan to use within 2 days.
- While “freezer burn” will not cause illness, it does make certain foods tough and tasteless. To avoid “freezer burn” wrap freezer items in heavy freezer paper.
- Label and date freezer packages so that the oldest products can be used first, using the first-in, first-out (FIFO) method.
- Place new items to the rear of the freezer, and older items to the front.
- Be sure that thermometers are clearly visible, from the outside of the freezer, so that they can be read and recorded in a log daily.
- The freezer should read 0 °F or lower.
- It is safe to freeze foods in their supermarket wrappings, but, if storing for longer than 2 months, rewrap in foil, plastic, or freezer paper.
- Freezing *does not destroy bacteria*. Bacteria become active again once food is thawed.

Thawing

- Thaw frozen meat, poultry, and fish in the refrigerator until pliable (easy to separate).
- DO NOT THAW FOODS AT ROOM TEMPERATURE.
- More information on proper thawing techniques can be found in the Supplemental Information section on the enclosed *USDA Recipes for Child Care* CD-ROM. Information can also be obtained from USDA's Meat and Poultry Hotline at 1-888-MPHotline (1-888-674-6854), or on the Food Safety and Inspection Service Web site at www.fsis.usda.gov/.

Terms Used To Describe Oven Temperatures

	Between
Very slow oven	250 °F and 275 °F
Slow oven	300 °F and 325 °F
Moderate oven	350 °F and 375 °F
Hot oven	400 °F and 425 °F
Very hot oven	450 °F and 475 °F
Extremely hot oven	500 °F and 525 °F

Some things to keep in mind:

1. **Always preheat your oven.** At least 10 to 15 minutes prior to putting foods in the oven to cook or bake, turn the oven on and set it to the temperature specified in the recipe.
2. **Calibrate ovens regularly and check them often.** Check ovens frequently with oven thermometers to make sure preset temperatures are being reached. In the event of an unstable temperature, your local utility company will be able to recalibrate the oven temperature correctly for you.

Common Cooking Abbreviations

Abbreviations	
tsp	teaspoon
Tbsp	tablespoon
oz	ounce
fl oz	fluid ounce
lb or #	pound
c	cup
pt	pint
qt	quart
gal	gallon
wt	weight
No.	number
pkg	package
°F	degree Fahrenheit
°C	degree Celsius
x	multiply
÷	divide

Glossary of Terms for Processes and Methods

Al dente – an Italian cooking term meaning to cook until tender but still slightly firm. Translated literally from Italian “to the tooth” the term is usually used to describe cooking pasta, but it can also apply to vegetables.

A.P. – an abbreviation for “As Purchased” weight (in other words, before trimming or preparation).

Bake – to cook by dry heat, usually in an oven. A suitable cooking method for meat, bread, and many other foods.

Barbecue – to roast or broil a food that is usually brushed with a highly seasoned sauce.

Baste – to spoon liquids, sauce, or meat juice over a food to keep it moist during cooking and to add flavor.

Batch cooking – to cook smaller “batches” of food (rather than cooking one large amount and holding it throughout the meal). Also, cooking in smaller batches to meet the demand of children who eat at different times. Batch cooking is often done with foods (such as pasta, steamed spinach, and hamburgers) that will not retain fresh qualities if large quantities are made and held.

Batter – a thin mixture of flour and liquid that can be poured or dropped from a spoon, such as for pancakes. Also, “to batter” means to coat with batter.

Beat – to vigorously mix by hand or with mixing equipment to make the mixture light, fluffy, or smooth.

Blend (combine) – to mix two or more ingredients together.

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 (dredge) – to coat food with bread crumbs, cracker crumbs, or flour before cooking.

Broil – to cook by direct heat from a flame, electric unit, or glowing coals; a suitable cooking method for tender meat cuts.

Brown – to cook food, generally meat, until it is uniformly brown on all sides.

Chill – to cool a food with ice water or refrigeration.

Chop – to cut food into small equal pieces with a knife or chopping equipment.

Coat (crumb) – to cover with crumbs, flour, or sugar.

Combine (blend) – to mix two or more ingredients together.

Convection oven – a more rapid way of cooking and browning foods due to a strong circulation of hot air.

Cream – to work foods (such as shortening and sugar) together with a spoon or mixer, until soft and fluffy or until thoroughly blended.

Crumb (coat) – to cover with crumbs, flour, or sugar.

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 pieces.

Dice – to cut into small cubes with a knife or chopping equipment.

Dough – a stiff batter, such as for bread or cookies.

Dredge (bread) – to coat food by dipping in crumbs, flour, cornmeal, sugar, or other coatings.

Fold – to combine several food ingredients into a mixture by gently turning the mixture, with a minimum of motions, until the ingredients are blended.

Fry – to cook food in a small amount of fat over heat in a skillet, pan, or griddle. This can also refer to “deep frying” or “French frying” in preheated fat or oil.

Glaze – to coat with a mixture to produce a glossy appearance on the food.

Grill – to cook uncovered over direct heat on a griddle or pan, removing fat as it accumulates.

Glossary of Terms for Processes and Methods

continued

Grind – to chop or pulverize food, such as meat, into small particles by using a food chopping device or meat grinder.

IQF – an acronym for “Individually Quick Frozen.”

Julienne – to cut into thin, short strips.

Knead – to work dough, such as bread dough, by pressing, folding, and stretching to develop the dough structure.

Leaven – to cause food such as bread to rise and increase volume by adding a leavening agent such as yeast or baking powder.

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 it.

Melt – to turn a solid food into a liquid by heating.

Mince – to finely chop food, such as garlic, into very small pieces.

Mix – to blend or combine two or more ingredients.

Parboil – to boil in water briefly as a preliminary cooking step. May be used with vegetables and meat.

Pare – to thinly trim off the outer covering or skin of a food, such as potatoes.

Peel – to strip off the outer covering of a food, such as oranges.

Punch down – to remove air bubbles from risen yeast dough by pushing the dough down with the fist.

Reconstitute – to bring back a concentrated food, such as a juice concentrate, to the original strength – 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.

Roast – to cook by dry heat, uncovered, in an oven. A suitable cooking method for tender meat roasts.

Sauté – to cook in a small amount of fat at a very high heat until tender.

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.

Score – to make shallow cuts lengthwise and crosswise on the surface of a dough or meat.

Shred – to cut or grate foods into narrow strips.

Simmer – to cook in liquid that is kept just below the boiling point.

Slice – to cut a food with a knife or slicing equipment.

Steam – to cook food in steam generated by boiling water or in steam equipment.



Stir – to mix ingredients with a circular motion without beating.

Stir-fry – to quickly cook, in a small amount of oil on high heat, tossing and stirring lightly to preserve the shape of the food.

Stock – a natural soup or gravy base made from cooking vegetables, meat, fish, or poultry in water.

Tender-crisp – to cook vegetables until they are just beginning to become tender. Vegetables cooked this way remain bright in color.

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.

Weighing and Measuring Ingredients

Both weight and volume measures are listed for most ingredients in each recipe. (For ingredients in amounts less than 2 ounces, and for liquids, only volume measures are given.) Keep in mind that **weighing** is more accurate than measuring. The recipes were standardized using weight measurements unless only a volume measurement is provided. Whenever possible **weigh the ingredients**. If scales are not available, be sure to use the correct methods of **measuring** as suggested below:

To Measure Liquid and Dry Ingredients

- Use standard measuring equipment and/or utensils.
- Make measurements level.
- Use the largest appropriate measure to save time and to reduce margin of error. (Example: use a 1-quart measure once rather than a 1-cup measure four times.) Exception: To measure flour, use no larger than a 1-quart measure. Otherwise, flour will pack. Note, however, as mentioned previously, that flour is best weighed rather than measured by volume.

Measuring Procedures for Common Foods

Flour (white or whole-grain), or meals:

- Spoon flour lightly into measure and level off with straight-edged knife or spatula.
- Do not shake or tap measure.
- Be sure flour does not pack. (Flour should be measured in nothing larger than a 1-quart measure.)

Nonfat dry milk:

- Stir lightly. Spoon into measure and level off with a spatula.

Dried whole eggs:

- Spoon lightly into measure and level off with a spatula.

Sugar, granulated, white or brown:

- Spoon into measure and level off with a spatula. If lumpy, sift before measuring.

Brown sugar, packed:

- If lumpy, roll out lumps with rolling pin. Pack regular brown sugar firmly into measure. The sugar should take the shape of the container when turned out.

Baking powder, baking soda, and dry spices:

- Stir lightly. Fill measuring spoons to heaping. Level off with a spatula.

Butter, margarine, and shortening:

- Press solid fat firmly into measure and level off with a spatula. When formed in measurable sticks or pounds, simply slice off the amount needed. For easy measuring:
 - 1 stick ($\frac{1}{4}$ pound) measures about $\frac{1}{2}$ cup.
 - 4 sticks (1 pound) or 1-pound block measure about 2 cups.



Substitutions of Ingredients in Recipes

Be careful when substituting ingredients in recipes. *Ingredients that may be used in place of other ingredients in a recipe are listed below:*

Ingredient Substitutions

In Place of	Use
1 teaspoon baking powder	$\frac{1}{4}$ teaspoon baking soda <i>plus</i> $\frac{5}{8}$ teaspoon cream of tartar
1 tablespoon double acting baking powder	$\frac{3}{4}$ teaspoon baking soda <i>plus</i> 1 $\frac{1}{2}$ cups buttermilk or sour milk (to replace 1 $\frac{1}{2}$ cups liquid)
1 package active dry yeast ($\frac{1}{4}$ ounce)	2 $\frac{1}{4}$ teaspoons active dry yeast
1 ounce active dry yeast	$\frac{3}{4}$ ounce instant yeast (check manufacturer's instructions) OR 2 ounces compressed yeast
1 cup flour (for thickening)	$\frac{1}{2}$ cup cornstarch OR $\frac{2}{3}$ cup quick-cooking tapioca
1 cup cake flour	1 cup all-purpose flour <i>minus</i> 2 tablespoons
1 ounce or 1 square of chocolate	3 tablespoons cocoa <i>plus</i> 1 tablespoon fat
1 cup margarine	1 cup butter
1 cup shortening	1 to 1 $\frac{1}{8}$ cups butter and subtract $\frac{1}{2}$ teaspoon salt from the recipe
1 cup shortening or butter	$\frac{1}{2}$ cup shortening or margarine <i>plus</i> $\frac{1}{2}$ cup applesauce
1 cup fluid whole milk	$\frac{1}{3}$ cup instant nonfat dry milk <i>plus</i> 1 cup water <i>plus</i> 2 $\frac{1}{2}$ teaspoons margarine or butter
1 cup sour milk or buttermilk	1 cup milk <i>plus</i> 1 tablespoon lemon juice or vinegar
4 No. 2 $\frac{1}{2}$ cans tomato juice	1 No. 2 $\frac{1}{2}$ can tomato paste <i>plus</i> 3 No. 2 $\frac{1}{2}$ cans water
1 46-fluid-ounce can tomato juice	11 $\frac{1}{2}$ ounces tomato paste <i>plus</i> 34 $\frac{1}{2}$ fluid ounces water (1 qt $\frac{1}{3}$ cup)
8 oz tomato puree	4 ounces tomato paste <i>plus</i> 4 ounces water
1 cup lemon juice	$\frac{1}{4}$ cup lemon juice concentrate (3 to 1) <i>plus</i> $\frac{3}{4}$ cups water

Can Sizes (Common Weights and Measures)

Can Sizes (Common Weights and Measures)

Can Size ¹	Average Net Weight or Fluid Measure Per Can ²	Average Volume Per Can in Cups	Cans Per Case	Approximate No. of Cans Equal to No. 10 Can ³	Common Products Found in Can Size
Institutional Size:					
No. 10	6 lb (96 oz) to 7 lb 5 oz (117 oz)	12 cups to 13 ² / ₃ cups	6	1	Fruits and vegetables; some other foods
No. 5 Squat	4 lb (64 oz) to 4 ¹ / ₄ lb (68 oz)	8 cups	16-20	1 ¹ / ₂	Tuna fish, sweet potatoes
No. 3 Cyl	51 oz (3 lb 3 oz) or 46 fl oz (1qt 1 ⁷ / ₈ cups)	5 ³ / ₄ cups	12	2.1	Condensed soups, some vegetables, meat and poultry products, fruit and vegetable juices
Family Size:					
No. 2 ¹ / ₂	26 oz (1 lb 10 oz) to 30 oz (1 lb 14 oz)	3 ¹ / ₂ cups	24	3.7	Fruits, some vegetables
No. 2 Cyl	24 fl oz (3 cups)	3 cups	24	4	Juices, soups
No. 2	20 oz (1 lb 4 oz) or 18 fl oz (1 pt 2 fl oz)	2 ¹ / ₂ cups	24	5.3	Juices, ready-to-serve soups, some fruits
Small Cans:					
No. 300	14 oz to 16 oz (1 lb)	1 ³ / ₄ cups	24	7.4	Some fruits and meat products
No. 2 (Vacuum)	12 oz	1 ¹ / ₂ cups	24	8 to 9	Vacuum-packed corn
No. 1 (Picnic)	10 ¹ / ₂ oz to 12 oz	1 ¹ / ₄ cups	48	10 to 11	Condensed soups, some fruits, vegetables, meats, and fish
8 oz	8 oz	1 cup	48 or 72	12	Ready-to-serve soups, fruits, and vegetables

¹ Can sizes are industry terms and do not necessarily appear on the label.

² The net weight on can or jar labels differs according to the density of the contents. For example: A No. 10 can of sauerkraut weighs 6 lb 3 oz; a No. 10 can of cranberry sauce weighs 7 lb 5 oz. Meats, fish, and shellfish are known and sold by weight of contents.

³ Number of cans to equal a No. 10 can are approximate measures. More exact measures can be made by using exact volume or weight of contents.

Instant Nonfat Dry Milk

Several recipes list nonfat dry milk (instant) as an ingredient. Here are some things to keep in mind:

- The weight and volume measures for instant nonfat dry milk are given in the recipes. For best results, dry milk should be weighed rather than measured.
- All of the recipes are standardized using instant nonfat dry milk.
- Where possible, to save preparation steps, dry milk is combined with other dry ingredients in the recipes and the required amount of water is added along with other liquid ingredients.

- If a recipe indicates “Instant nonfat dry milk, reconstituted,” use the ratios of dry milk and water to prepare the amount of reconstituted milk needed for the recipe.
- If desired, fluid milk may be used in place of reconstituted nonfat dry milk in the recipes.

Directions:

- For small amounts: Mix instant nonfat dry milk and water in a jar with a tight lid or in a large pitcher. Shake or stir with a whisk to mix.

- For larger amounts: Mix nonfat dry milk and water in a mixer or blender or stir with a whisk to mix.
- If reconstituted milk will not be used immediately, *cover and refrigerate*.

To Prepare Sour Milk:

To prepare 1 quart of sour milk, use 1/4 cup vinegar or lemon juice in place of 1/4 cup of the water in fluid skim milk recipes.

Reconstituting Nonfat Dry Milk (Fluid Skim Milk = Nonfat Dry Milk + Water)

To Make This Amount of Fluid Skim Milk	Instant Nonfat Dry Milk		Use This Amount of Water at Room Temperature
	Use This Amount of Nonfat Dry Milk by Weight	OR Use This Amount of Nonfat Dry Milk by Measure	
1 cup	1 oz	1/3 cup	1 cup
2 cups	2 oz	2/3 cup	1 7/8 cups
1 quart	3 1/2 oz	1 1/3 cups	3 3/4 cups
2 quarts	7 oz	2 2/3 cups	1 qt 3 1/2 cups
3 quarts	10 1/2 oz	1 qt	2 3/4 qt
1 gallon	14 oz	1 qt 1 1/3 cups	3 3/4 qt
2 gallons	1 lb 12 oz	2 qt 2 2/3 cups	1 gal 3 1/2 qt
3 gallons	2 lb 10 oz	1 gal	2 gal 3 1/4 qt
4 gallons	3 lb 8 oz	1 gal 1 1/4 qt	3 3/4 gal
5 gallons	4 lb 6 oz	1 gal 2 3/4 qt	4 3/4 gal
6 gallons	5 lb 4 oz	2 gal	5 gal 2 1/2 qt

Shell Eggs

Purchasing and Storing Fresh Shell Eggs

- Purchase only eggs that are refrigerated, fresh, clean, unbroken, and odor-free with uncracked shells.
- Refrigerate promptly after purchasing or upon delivery to help maintain quality.
- Store away from foods with a strong odor such as onions, cabbage, and broccoli.
- Leave eggs in original shipping container and place in coldest part of refrigerator, not in the door.
- **Do not wash eggs**, it could remove the protective mineral oil coating put on at the plant after the eggs have been washed and sanitized using a special detergent.

Using Fresh Shell Eggs

Eggs come in different grades and sizes. While the size and grade are marked on the carton or case, the weight is not. Here is more information you'll want to know:

- The grades — AA, A, and B — indicate the *quality* of eggs.
- Grades are based on both interior quality and the appearance and condition of the shell.

- Grades *do not* relate to size.
- Egg sizes are: extra-large, large, medium, and small. While some eggs in the carton may look slightly larger or smaller than the rest, it is the total weight of a dozen eggs that puts them in one of the size groups.
- The chart below shows the weight of different sizes of shell eggs and the number needed to fill 1 cup.

Comparing Egg Sizes by Weight and Number Per Cup

Size (see note)	Minimum Net Weight of 1 Dozen Eggs (in shell)	Approximate Number per Cup (8 ½ ounces)		
		Whole Eggs	Yolks Only	Whites Only
Extra Large	27 oz (1 lb 11 oz)	4	12	6
*Large	24 oz (1 lb 8 oz)	5	14	7
Medium	21 oz (1 lb 5 oz)	6	16	8
Small	18 oz (1 lb 2 oz)	6	18	10

*All shell eggs used in the recipes in this publication are *large* size.

Shell Eggs

continued

- Some recipes specify weight or volume measure for eggs. To determine the correct number of fresh shell eggs to use, use the chart below. This shows the weight and volume measures for fresh *large* eggs (white and yolk) without shells.

Handling and Cooking Eggs Safely

- Eggs that are not cleaned or that have been damaged should be rejected or discarded.
- **Do not use** cracked or soiled eggs. Eggs that are cracked or soiled may contain

harmful bacteria that can be spread by food handlers.

- Because eggs are an animal product, be sure to wash hands after handling all raw egg products, both in the shell and removed from the shell.
- Wash utensils, equipment, and work areas with hot, soapy water before and after contact with eggs.
- Do not keep eggs out of the refrigerator more than 2 hours.
- **Do not use** uncooked eggs in uncooked foods, including (but not limited to): milk drinks (such as eggnog or milkshakes); uncooked salad dressings; or uncooked puddings.

Weight And Volume Measures for Large Fresh Eggs

Number of Large Eggs**	Weight	Measure
1	1 ³ / ₄ oz	3 ¹ / ₃ tablespoons
2	3 ¹ / ₂ oz	³ / ₈ cup
3	5 ¹ / ₃ oz	⁵ / ₈ cup
6	10 ³ / ₄ oz	1 ¹ / ₄ cups
11	1 lb 3 ² / ₃ oz	2 ¹ / ₄ cups
12	1 lb 5 ¹ / ₂ oz	2 ¹ / ₂ cups
13	1 lb 7 ¹ / ₄ oz	2 ³ / ₄ cups
19	2 lb 2 oz	1 quart
25	2 lb 12 ³ / ₄ oz	1 quart 1 ¹ / ₄ cups
39	4 lb 5 ³ / ₄ oz	2 quarts ¹ / ₄ cup
50	5 lb 9 ¹ / ₂ oz	2 quarts 2 ¹ / ₂ cups

** This shows the weight for fresh *large* eggs (white and yolk) without shells.

- Raw eggs and other ingredients, combined according to recipe directions, should be cooked immediately or refrigerated and cooked within 24 hours.
- Many cooking methods can be used to cook eggs safely including poaching, hard cooking, scrambling, frying, and baking. However, eggs must be cooked thoroughly until yolks are firm. Scrambled eggs should not be runny. Casseroles and other dishes containing eggs should be cooked to 160 °F. Use a food thermometer to be sure.
- Serve cooked eggs and dishes containing eggs immediately after cooking, or place in shallow containers for quick cooling and refrigerate at once for later use. Use within 3 to 4 days.
- For egg storage recommendations, see chart.

Egg Storage

Product	Refrigerator	Freezer
Raw eggs in shell	3 to 5 weeks	Do not freeze
Raw egg whites	2 to 4 days	12 months
Raw egg yolks	2 to 4 days	Yolks do not freeze well
Hard-cooked eggs	1 week	Do not freeze
Casseroles made with eggs	3 to 4 days	After baking, 2 to 3 months



Hard-Cooked Eggs

Hard-cooked eggs can be used in a variety of ways, including in hot main dishes, in chilled salads or sandwiches, or as snacks. Below are directions for cooking fresh (shell) eggs in two ways: in water and in the oven.

For more information on shell eggs, including size and grade, see page 51.

To cook in water:

1. Place eggs (with shell) in a wire basket. Lower basket carefully into gently boiling water. Simmer just below boiling point for 15 minutes.

2. Remove pot from heat and cool eggs quickly under cold running water. (Rapid cooling in cold water stops the cooking process to make a more tender hard-cooked egg. It also prevents the unsightly formation of a darkened ring between the yolk and the white.)
3. Crack shells by rolling lightly. Peel, starting from large end of egg.
4. Cut in halves, or chop. Use immediately in hot main dishes or chill in refrigerator for later use in salads or sandwiches.

To cook in the oven:

1. Break 25 eggs, one at a time, into oiled baking pans (for example, 12" x 20" x 2"). Add $\frac{1}{2}$ cup water to each pan.
2. Place each pan of eggs in a pan of hot water; cover and bake at 350 °F (moderate oven) about 30 minutes until eggs are firm.
3. Chop into $\frac{1}{2}$ inch squares. Use immediately in hot main dishes or chill in refrigerator for later use in salads or sandwiches.

Cooking Dry Beans, Peas, and Lentils

Dry beans, peas, and lentils may be served as a vegetable or used in a main dish. One pound of dry beans yields 5 ⁷/₈ cups to 7 cups cooked beans.

Canned beans may be substituted for cooked dry beans in any recipe. Some or all of the salt in the recipe should be omitted when canned beans are used in place of cooked dry beans.

To prepare for cooking:

Sort beans, peas, or lentils and remove dirt and foreign matter.

Wash in cold water, if needed. Directions for soaking and cooking are given below.



Soaking:

Dry Beans

Overnight method: Add dry beans to cold water. Cover. Let stand in refrigerator overnight. Use immediately after soaking period. Longer periods for soaking beans are not recommended.

Quick-soak method: Pour dry beans into boiling water and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

Split Peas

Dry split peas may be cooked without soaking.

Lentils

Lentils may be cooked without soaking.

Cooking:

1. Once dry beans or peas have been soaked, drain and discard the soaking water (this is to reduce the gas-causing sugars).
2. Add ¹/₂ teaspoon salt (optional) for every 1 pound of beans, peas, or lentils. Boil gently (with lid tilted) until tender. Use the cooking time in the table on page 56 as a guide. Add additional boiling water if beans become dry. Cook split peas in small batches — this will help them retain their shape and not be mashed.
3. Drain, if desired. Serve or use in recipes.

The amount of water and cooking time needed varies for dry beans, peas, and lentils. Refer to the table on page 56 or package directions for cooking information.

Cooking Dry Beans, Peas, and Lentils

continued

This table tells you the approximate:

1. Volume of 1 pound of beans/ peas/ lentils in cups;
2. Amount of *boiling* water (in quarts) needed to cook each 1 pound; and
3. Amount of time (in hours) needed to cook.

Type of Dry Bean or Pea	No. of Cups of Dry Beans or Peas to = 1 lb	Quarts of Boiling Water for Each 1 lb of Dry Beans or Peas	Hours Needed To Cook Soaked Dry Beans or Peas
Blackeye peas	2 ³ / ₄ cups	1 ³ / ₄ qt	¹ / ₂ hr
Garbanzos (chickpeas)	2 ¹ / ₂ cups	1 ¹ / ₈ qt	1 ³ / ₄ hr
Great Northern	2 ¹ / ₂ cups	1 ³ / ₄ qt	1 to 1 ¹ / ₂ hr
Kidney beans	2 ¹ / ₂ cups	1 ³ / ₄ qt	2 hr
Lima beans, large	2 ⁵ / ₈ cups	1 ³ / ₄ qt	1 hr
Lima beans, small	2 ³ / ₈ cups	1 ³ / ₄ qt	1 hr
Pea beans, Navy beans	2 ¹ / ₄ cups	1 ³ / ₄ qt	1 ¹ / ₂ to 2 hr
Peas, whole	2 ¹ / ₃ cups	1 ¹ / ₂ qt	1 hr
Pinto beans	2 ³ / ₈ cups	1 ³ / ₄ qt	2 hr
Soybeans	2 ¹ / ₂ cups	2 ¹ / ₄ qt	2 to 3 hr
Type of Dry Lentil or Pea	No. of Cups of Dry Lentils or Peas to = 1 lb	Quarts of Boiling Water for Each 1 lb of Dry Lentils or Peas	Hours Needed To Cook Dry Lentils or Peas Without Soaking
Lentils	2 ³ / ₈ cups	1 ³ / ₄ qt	¹ / ₂ hr
Peas, split	2 ¹ / ₄ cups	1 ¹ / ₄ qt	¹ / ₃ hr

Using Master Mix for Baked Products

What is Master Mix?

Master Mix (A-15) is a mixture of dry ingredients and shortening. It is blended in advance for use in baked products without yeast, such as quick breads and pancakes. Using Master Mix can save preparation time.

How do you store Master Mix?

Since Master Mix stores well, prepare extra batches for later use. When deciding how many batches to prepare, consider storage space available, equipment capacity, and the frequency with which the baked items are prepared.

To store, place prepared Master Mix in a tightly covered container. Keep in a cool, dry, well-ventilated area. For longest shelf life, store in *refrigerator* and **use within 3 months**.

Which recipes use the Master Mix?

Four child care recipes use Master Mix (A-15). They are:

- Cut Biscuits Using Master Mix (A-9B)
- Muffin Squares Using Master Mix (A-11B)
- Pancakes Using Master Mix (A-12A)
- Banana Bread Squares Using Master Mix (A-13A)

These recipes will produce a product that is similar to the basic recipe. However, by using Master Mix, you can save some preparation time.

Master Mix

Grains/Breads

Grains/Breads

A-15

Ingredients	25 Servings		50 Servings		Directions
	Weight	Measure	Weight	Measure	
Enriched all-purpose flour	5 lb 4 oz	1 gal 3 ¼ cups	10 lb 8 oz	2 gal 1 ½ qt	1. Place flour, baking powder, salt, cream of tartar, and dry milk in a mixing bowl. Blend for 3 minutes on low speed. 2. Add shortening to dry ingredients and mix for 5 minutes on low speed, or until evenly distributed. Mixture will be crumbly. 3. Store in tightly covered container, in the refrigerator. 4. Use Master Mix in recipes for: Cut Biscuits (A-09B); Muffin Squares (A-11B); Pancakes (A-12A); and Banana Bread Squares (A-13A).
Baking powder	4 ¾ oz	¾ cup	9 ½ oz	1 ½ cups	
Salt		2 Tbsp	2 ¾ oz	¼ cup	
Cream of tartar		1 Tbsp 1 ½ tsp		3 Tbsp	
Instant nonfat dry milk	6 oz	2 ½ cups	12 oz	1 qt 1 cup	
Shortening	1 lb 5 oz	3 cups 2 Tbsp	2 lb 10 oz	1 qt 2 ¼ cups	

SERVING:

1 cup
(See individual recipes that use Master Mix).

YIELD:

25 Servings: 7 lb 6 oz
50 Servings: 14 lb 12 oz

VOLUME:

25 Servings: 1 gallon 2 ¼ quarts
50 Servings: 3 gallons 2 cups

How will you use Master Mix in a recipe?

To use Master Mix, weigh or measure the amount of mix specified in the recipe variation. *Do not pack or sift.* Measure mix lightly and level off with a spatula or the straight edge of a knife. Add remaining ingredients and bake according to recipe directions.

How many servings of baked product will a 6-quart batch of Master Mix produce?

For convenience, the Master Mix recipe has been standardized in batches of 6 quarts. As noted above, this size batch can be prepared

in a 10-quart mixer. Below is an estimate of how many servings you will obtain from one 6-quart batch.

One 6-quart batch of Master Mix will produce...

- 100 servings of... Cut Biscuits
- 150 servings of... Muffin Squares
- 133 servings of... Pancakes
- 150 servings of... Banana Bread Squares

Pan Sizes and Capacities

The Pan Sizes and Capacities chart shows the approximate capacity in either volume or weight measure of common sizes of pans.

Measures given in the chart are approximate and may vary according to manufacturer's specifications and the type of food that will be put into the pan. Pans made by different companies may have slightly different total capacities. If used for transporting foods, the pans will have lids and might not be filled to the brim.

Use the chart as a guide to help estimate the number of pans needed to approximate the yield of a full pan. Keep in mind, when baking, to fill the pan only $\frac{1}{2}$ to $\frac{2}{3}$ full to allow room for rising.

Pan* Sizes and Capacities

Pan	Size (inches)	Approximate Capacity
Steamtable Pans	12" x 20" x 2"	8 qt (2 gal)
Half-Steamtable Pans	12" x 10" x 2"	4 qt (1 gal)
Cake Pans	26" x 18" x 2"	8 to 10 lb
Sheet Pans	26" x 18" x 1"	4 to 6 lb
Half-Sheet Pans	13" x 18" x 1"	2 to 3 lb
Quarter-Sheet Pans	13" x 9" x 1"	1 to 1 $\frac{1}{2}$ lb
Cake Pan	9" x 13" x 2"	1 to 1 $\frac{1}{2}$ lb
Bread Pan	5" x 6" x 4"	3 to 5 lb

* The size of pans may vary according to manufacturer.

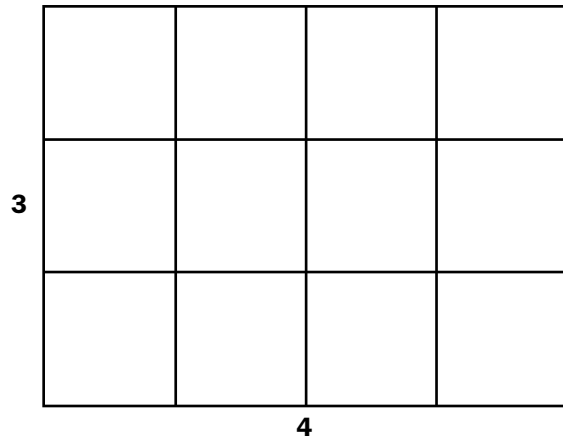
Common Kitchen Pans To Use as Casseroles

When the Recipe Calls for:	Use:
4-cup baking dish	9" pie plate 8" x 1 $\frac{1}{4}$ " layer cake pan 7 $\frac{3}{8}$ " x 3 $\frac{5}{8}$ " x 2 $\frac{1}{4}$ " loaf pan
6-cup baking dish	8" or 9" x 1 $\frac{1}{2}$ " layer cake pan 10" pie plate 8 $\frac{1}{2}$ " x 3 $\frac{5}{8}$ " x 2 $\frac{5}{8}$ " loaf pan
8-cup baking dish	8" x 8" x 2" square pan 11" x 7" x 1 $\frac{1}{2}$ " baking pan 9" x 5" x 3" loaf pan
10-cup baking dish	9" x 9" x 2" square pan 11 $\frac{3}{4}$ " x 7 $\frac{1}{2}$ " x 1 $\frac{3}{4}$ " baking pan 15" x 10" x 1" jelly-roll pan
12-cup baking dish	13 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " x 2" glass baking dish 13" x 9" x 2" metal baking pan 14" x 10 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " roasting pan

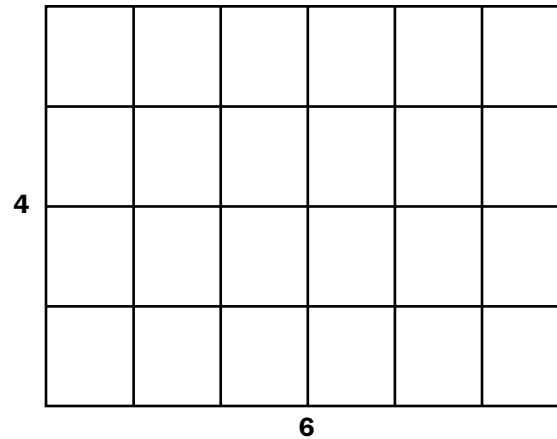
Portioning Diagrams

Cutting diagrams for portioning

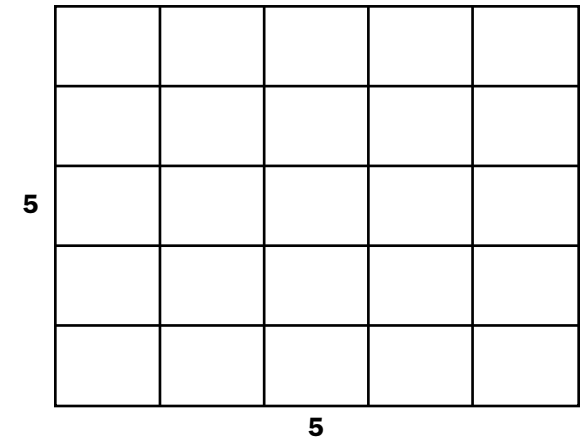
For 12 servings cut 3 x 4



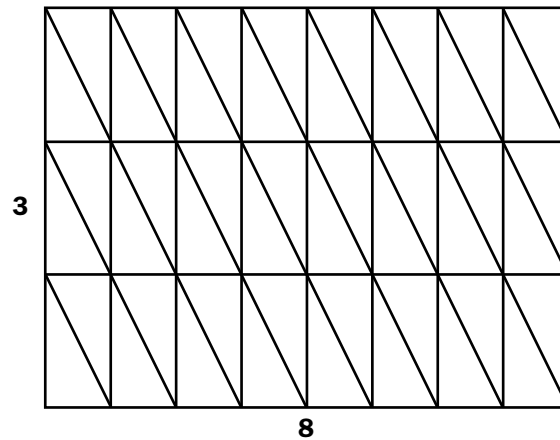
For 24 servings cut 4 x 6



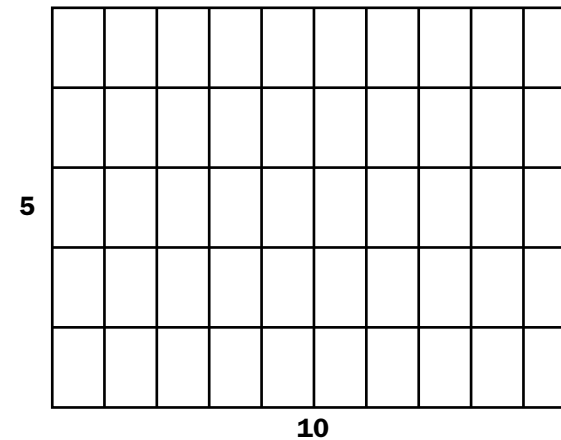
For 25 servings cut 5 x 5



For 48 servings cut 3 x 8 then diagonally



For 50 servings cut 5 x 10



Portion Control

The recipes are standardized to yield a certain number of servings specified in the recipe. To obtain that number of servings, follow the specified serving size as closely as possible. Scoops, ladles, or spoons of standard sizes help in serving equal-sized portions.

Ladles

Using ladles will help in obtaining equal-size servings of soups, sauces, creamed foods, and similar foods. Perforated ladles are available for accurate portioning of foods that need draining.

Measuring Cups

A measuring cup can be used in place of a scoop (or disher) or measuring service spoon. Measuring cups are not as expensive to purchase.

Scoop (or Disher) Number

The number of the scoop or disher indicates the number of **level** scoopfuls it takes to make 1 quart.

Standardized Portioning Tools

Measure (cup, Tbsp, or tsp)		Ladle Size		Measuring Serving Spoons		Scoop (or Disher) Number *
1 cup	=	8 oz	=	8 oz	=	...
$\frac{3}{4}$ cup	=	6 oz	=	6 oz	=	...
$\frac{2}{3}$ cup	=	...	=	...	=	6
$\frac{1}{2}$ cup	=	4 oz	=	4 oz	=	8
$\frac{3}{8}$ cup	=	...	=	3 oz	=	10
$\frac{1}{3}$ cup	=	...	=	...	=	12
$\frac{1}{4}$ cup	=	2 oz	=	2 oz	=	16
3 $\frac{1}{3}$ Tbsp	=	...	=	...	=	20
2 $\frac{3}{4}$ Tbsp	=	...	=	...	=	24
2 Tbsp	=	...	=	...	=	30
1 $\frac{2}{3}$ tsp	=	...	=	...	=	40
3 $\frac{3}{4}$ tsp	=	...	=	...	=	50
3 $\frac{1}{4}$ tsp	=	...	=	...	=	60
2 $\frac{3}{4}$ tsp	=	...	=	...	=	70
2 tsp	=	...	=	...	=	100

* measures for scoops and dishers are approximate.

Portion Control

continued

Measuring-Serving Spoons

Measuring-serving spoons are volume-standardized serving spoons identified for a specific volume measure. They are similar to a ladle, scoop, disher, or dipper in that they can be used to measure specific volumes of food but they are shaped like a serving spoon (solid or perforated.) Measuring-serving spoons are labeled in ounces (which are understood to be fluid ounces, not avoirdupois (weight) ounces).

Serving Spoons

A serving spoon (solid or slotted) may be used instead of a scoop. Since these spoons are not identified by number, it is necessary to measure or weigh the quantity of food from the spoons used. This will help ensure that the proper portion size is served.



Be Aware of Choking Hazards When Selecting and Serving Foods

Keep in mind that young children — especially ages 2 to 3 years — are at risk of choking on food. They remain at risk until they can chew and swallow better by about age 4.

Always supervise children during meals and snacks.

Foods that may cause choking include...

Hot dogs	Nuts and seeds	Raw carrots
Raisins	Chunks of meat	Peanut butter (spoonfuls)
Whole grapes	Marshmallows	Round or hard candy
Chips	Popcorn	Pretzels
Raw celery	Cherries with pits	Large pieces of fruit with skin

Some foods can be offered if you change the form. For example...

- 1) Cut hot dogs lengthwise into thin strips.
- 2) Steam carrots or celery until slightly soft, then cut into sticks.
- 3) Cut grapes or cherries into small pieces.

Finger Foods and Snack Ideas

Finger Foods

Finger foods are foods cut into bite-size pieces that children can pick up with their fingers. Many fruits and vegetables — such as apple wedges, banana slices, cucumber sticks — are good as finger foods. So are bread and cereal items, such as bagel quarters and oat cereal rings; and meat/meat alternates, such as cubes of meat or cheese. Other finger foods are suggested below.

On pages 64-65 there are tips on preparing foods as finger foods.

CAUTION:

- Young children — especially ages 2 to 3 years — are at risk of choking on food. They remain at risk until they can chew and swallow better by about age 4.
- Always supervise children during meals and snacks.
- See page 62 for a list of foods that may cause choking. Also listed are some foods that can be offered if you change the form.

Suggested finger foods include:

Apple wedges	Bagel quarters
Banana slices	Berries
Bread sticks	Broccoli florets
Cabbage wedges	Carrot sticks
Cauliflower florets	Cucumber sticks
Celery sticks	Cheese cubes
Cherry tomato halves	Cinnamon toast fingers
Dried apples	Dried cherries, pitted
Dried cranberries	Dried peaches, pitted
Dried pears	Dry cereal, such as oat rings
Fresh peach wedges	Fresh pear wedges
Fresh pineapple sticks	Graham cracker strips
Halved grapes	Halved meatballs
Hard-cooked egg halves	Grapefruit sections
Green pepper sticks	Green beans, whole
Jicama strips	Kohlrabi sticks
Meat cubes	Melon cubes
Nectarine wedges	Orange sections
Pizza wedges	Plum wedges
Pretzels, hard or soft	Prunes, pitted
Raisins	Rice cakes
String cheese	Tangerine sections
Tomato wedges	Trail mix
Turnip sticks	Zucchini sticks

Preparing Finger Foods

Before proceeding with preparation, scrub fruits and vegetables thoroughly with a soft brush.

Here are some suggestions for preparing a variety of finger foods:

Apple wedges	Remove core. Slice into wedges about 1/2 inch thick. Serve peeled or unpeeled.
Banana slices	Peel bananas. Slice or serve as banana half, and teach the children how to peel the banana.
Berries	Select fruit with no soft decayed spots. Remove caps and stems.
Cabbage wedges	Steam or microwave until bright green. Slice into 1/2 inch wedges.
Carrot sticks	Scrape or peel. Cut off ends. Cut into sticks about 1/4 inch thick and 2 1/2 to 3 inches long.
Cauliflower florets	Break into single florets.
Celery sticks	Trim off root and blemishes. Cut into sticks about 1/4 inch thick and 2 1/2 to 3 inches long. Or, cut celery stalk into pieces 2 1/2 to 3 inches long. Fill with peanut butter (thinned with mayonnaise, honey, or low-fat margarine) or cream cheese (thinned slightly with milk). Minced pimentos may be added to cream cheese for color or extra flavor.
Cheese cubes	Cut cheese (such as Cheddar, Edam, Gouda, Gruyere, Muenster, and Swiss) into 1-inch cubes.
Fresh grapes	May be served on the stem, snipped into small bunches, or removed from the stem. Halve the grapes to prevent choking in small children.
Fresh peach wedges	Select ripe peaches. Peel, or leave unpeeled, as desired. Remove pit and cut into 1/4 inch wedges.
Fresh pear wedges	Select ripe fruit. Remove core and soft places. Cut into 1/4 inch wedges.
Fresh pineapple	Peel and core pineapple. Cut into sticks 1/2 inch thick and 2 1/2 to 3 inches long.
Grapefruit sections	Peel and section. Remove all seeds.
Green pepper sticks	Cut out stem and remove seeds. Cut into strips 1/4 inch wide and 2 1/2 to 3 inches long.
Kiwi	When ripe, kiwi are soft to the touch. May be peeled and then sliced or sectioned. Can be served halved, with peels intact; child will scoop out contents with a spoon. Can also be served unpeeled: the peels are edible.

Finger Foods and Snack Ideas

continued

Meat cubes	Cut thoroughly cooked meat (such as roast beef, meat loaf, chicken, roast veal, or lamb) into 1-inch cubes.
Melon cubes	Peel, remove seeds and fibers, and cut into $\frac{1}{2}$ inch cubes.
Orange sections	Peel and section. Remove all seeds. Can also be cut into sections with peels intact (do this to make "orange smiles").
Plums	Remove pit and cut into quarters.
Prunes	Remove pit or buy pitted prunes.
Tangerine sections	Peel and section. Be sure to remove all seeds.
Tomato wedges	Cut out core and cut into wedges.
Turnip sticks	Peel turnips. Cut into sticks $\frac{1}{2}$ inch thick and 2 to 2 $\frac{1}{2}$ inches long.



Ideas for Snacks

Many foods are good for snacks. Below are some ideas, grouped as follows: Meat/Meat Alternate; Fruit, Juice, or Vegetable; and Grains/Breads.

CAUTION:

- Young children — especially ages 2 to 3 years — are at risk of choking on food. They remain at risk until they can chew and swallow better by about age 4.
- Always supervise children during meals and snacks.
- See page 62 for a list of foods that may cause choking. Also listed are some foods that can be offered if you change the form.

Snack ideas containing meat/meat alternate:

Quesadilla (melted cheese on a tortilla)

Peanut butter on toast fingers

Grated mozzarella cheese on a toasted English muffin spread with pizza sauce

Deviled hard-cooked egg half and toast triangles

Cheese cubes and fresh fruit chunks

Cheese cubes and juice

Tuna spread on a bagel

String cheese and juice

Cheese sandwich (cut with a cookie cutter) on whole-wheat bread

Cheese melted on mini shredded wheat

Turkey and ham slices in pita bread

Peanut butter and banana sandwich

Snack ideas containing fruit, juice, or vegetable:

Fruit smoothie (frozen fruit, juice, ice)

Fresh vegetables and grain-based chips with dip

Frozen banana and milk

Grapes and low-fat cheese cubes

Carrot/raisin salad and milk

Fruit kabob

Snack ideas containing grains/breads:

Raisin-bran or blueberry muffin and milk

Quick-bread fingers: zucchini bread, pumpkin bread, banana bread

Graham crackers and milk

Crackers with peanut butter

Raisin bread squares and orange juice

Melba toast and juice

Breadsticks and juice

Fig bars and milk

Bagel half and juice

Whole-wheat crackers with cheese slices

Baked tortilla chips with salsa

Pretzels and juice

Some interesting combinations you might like to try...

Banana dog:

Spread hot dog bun with peanut butter, drizzle with honey. Lay whole banana on top. Cut as desired.

Fruit burrito:

Place chopped fruit in a tortilla. Add a dash of cinnamon.

Frosty fruit:

Serve frozen grapes, frozen melon balls, or frozen berries with milk.

Trail mix:

Mix might include peanuts, miniature marshmallows, raisins, dates, and other dried fruit.

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