



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**



South Dakota 4-H Special Foods Handbook

South Dakota 4-H Special Foods Committee
Chairs: Sonia Mack and Jodi Loehrer

Make Every Bite Count!

Revised March 2024

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**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

4-H & Youth

MARCH 2024

SDSU EXTENSION

South Dakota 4-H Special Foods Handbook

Introduction

The 4-H Special Foods Handbook is a guide for South Dakota 4-H members who will be participating in the county and state Special Foods Contests. The information has been organized to assist in learning about foods and nutrition, as well as the rules for the Special Foods Contest. The handbook will help as members prepare for the comprehensive Youth-in-Action event.

We hope you find this information helpful in your Special Foods project. Good Luck!

Sincerely,
The State Fair Youth in Action Committee

Acknowledgments

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Find contest forms at: extension.sdstate.edu/state-fair.

Objectives & Rules

Goal and Objectives

4-H'ers will learn to provide meals and healthy snacks that satisfy aesthetic, psychological, nutritional, and individual needs by choosing and preparing a recipe from any one of the five food groups.

Nutritional Objectives

- To know Choose My Plate (USDA) food groups and amount/number of servings needed for one's own age and activity level.
- To prepare foods that meet basic nutrient needs of the body.
- To be able to list and discuss the functions of the six major nutrients present in the food groups and specifically those found in the food prepared and the menu.
- To recognize and categorize foods in the recipe into the food groups.
- To be able to discuss key nutrients present in the food prepared and the body's need for these nutrients.

Menu Planning Objectives

- To demonstrate how to increase interest in a meal by varying color, shape and form of menu items.
- To demonstrate how contrasts in a menu's flavors, temperatures and textures contribute to its total quality.
- To use the menu chosen to establish preparation methods and equipment use patterns.

Aesthetics Objectives

- To coordinate an attractive and aesthetically pleasing place setting based on the menu.
- To demonstrate the importance of arrangement and garnishing in overall appearance of the recipe being served.

Time Management Objectives

To identify and implement time management strategies that allow youth to prepare a recipe, complete a place setting, and interview with the nutrition judge within 90 minutes. Cell phones are not a permitted timer.

Food Safety & Sanitation Objectives

- To observe personal hygiene habits.
- To be able to discuss and implement general and routine kitchen practices.
- To discuss and implement recommendations for avoiding bacterial hazards when purchasing, storing, thawing, cooking, and serving food.

Food Principles Objectives

- To discuss the food principles and preparation techniques applied in the recipe.
- To evaluate the finished product based on eye appeal, flavor, texture, and taste.

General Contest Rules

Contestants may choose to make a recipe from any one of the five food groups from MyPlate.

One serving of the recipe must provide at least one serving from the food group in which it was entered. For example, if a casserole is entered in the dairy group, it could contain 1 cup of milk or 2 oz. processed cheese or a combination of foods (e.g., ½ cup milk and ¾ oz. natural cheese) per serving.

The use of food safe gloves are strongly encouraged when working with raw meat products.

Bacon is high in saturated fat and therefore is not an acceptable protein. Bacon can be used in recipes for flavor, but should not be considered as the main source of protein. Bacon is an acceptable garnish.

Appearance

Contestants should be poised and well groomed; wear clean clothing, closed toe shoes and a full apron. Hair should be away from the face using a scarf, ribbon, rubber band, hairnet, cap, etc. Clean hands are important!

Recipes

Recipes should provide a serving from the MyPlate Food Group in which they are entered. Use the Special Foods Worksheets (found in the contestant packet) and Serving Size Guide (starting on page 31) to determine if the recipe is eligible for the contest.

Nutritious drinks are acceptable recipes in the **Beginner Division Only**.

The recipe should provide 2 - 6 servings.

Recipes must be on a 3 x 5-inch or 4 x 6-inch recipe card. Two copies are required with name, county, and menu occasion in the upper right hand corner. One copy is for your place setting, and one copy is to work from.

Technique

Contestants must bring all supplies needed to prepare and serve the recipe selected. This includes ingredients, cooking utensils, serving utensils, and everything needed for a place setting.

Three ingredients must be measured during the contest. A maximum of two ingredients may be pre-cooked or pre-measured prior to the contest. All other preparation needs to be done at the contest.

Contestants need to:

1. Use correct measuring, mixing, and preparation techniques of the product and know why;
2. Know food safety involved in food preparation techniques (time, temperature, and personal sanitation);
3. Name the five foods groups from MyPlate;
4. Know the six basic nutrients;
5. Know the main vitamins and minerals and those present in the ingredients used in their recipe.


Menus should be categorized according to the occasion, which includes: family, guest, party, holiday, picnic, or formal meal. A snack menu is an option for the beginner division. List the occasion on the menu worksheet and recipe card (3x5 or 4x6-inch).

Required Worksheets/Paperwork

All contestants must have a written menu. Menu requirements for each age division are listed under the nutrition section of Menu Planning on pages 12-14. Menus will be displayed at the place setting. Write your name, county, and menu occasion in the upper right hand corner. Seniors need to provide the menu for the meal they are serving at the place setting. An entire day menu is still necessary for the senior menu worksheet.






Create a customized "MyPlate Plan". To create a customized plan:

- Go to myplate.gov/myplate-plan
- Click on START at Get Your MyPlate Plan.
- Enter your age, sex, weight (in pounds), height (feet & inches), and select a physical activity level from the dropdown list; then click 'Calculate Food Plan'
- Click on the calorie level suggested to obtain your MyPlate Plan.
- Click download to obtain your MyPlate Plan.



Start simple with MyPlate Plan
The benefits of healthy eating add up over time, bite by bite. Small changes matter. Start Simple with MyPlate.

A healthy eating routine is important at every stage of life and can have positive effects that add up over time. It's important to eat a variety of fruits, vegetables, grains, protein foods, and dairy or fortified soy alternatives. When deciding what to eat or drink, choose options that are full of nutrients. Make every bite count.

Food Group Amounts for 1,600 Calories a Day for Ages 9 to 13 Years				
 1½ cups	 2 cups	 5 ounces	 5 ounces	 3 cups
Focus on whole fruits Focus on whole fruits that are fresh, frozen, canned or dried.	Vary your veggies Choose a variety of colorful fresh, frozen, and canned vegetables—make sure to include dark green, red, and orange choices.	Make half your grains whole grains Find whole-grain foods by reading the Nutrition Facts label and ingredients list.	Vary your protein routine Mix up your protein foods to include seafood, beans, peas, and lentils, unshelled nuts and seeds, soy products, eggs, and lean meats and poultry.	Move to low-fat or fat-free dairy milk or yogurt for lactose-free dairy or fortified soy versions Look for ways to include dairy or fortified soy alternatives at meals and snacks throughout the day.
Choose foods and beverages with less added sugars, saturated fat, and sodium. Limit: • Added sugars to <40 grams a day. • Saturated fat to <18 grams a day. • Sodium to <1,800 milligrams a day.			Be active your way. Children 6 to 17 years old should move at least 60 minutes every day.	

- Include MyPlate Plan with other contestant forms. **Be sure to include name, age, physical activity level (in minutes/day) and county on the print out.**

Seniors need to complete the Cost per Serving worksheet for their recipe (do not include menu items or garnish).

Understanding the cost of preparing meals versus eating prepared meals (eating out, ordering take out, etc) is budget savvy and supports the key recommendations of the dietary guidelines.

When you prepare your own meals, you have more control over the ingredients and can ensure that you and your family eat fresh, wholesome meals.

The Special Foods Worksheets (recipe worksheet, serving size worksheet, menu worksheet, cost per serving worksheet (seniors only), and customized MyPlate Plan printout) need to be filled out by the contestant prior to the contest.

New for seniors, the cost per serving worksheet assists with budgetary considerations when preparing meals. Only include on the worksheet the recipe ingredients being used for the Special Foods Contest. Do **NOT** include other menu items on the worksheet.

If the contestant goes to the State Fair, the worksheets must be sent to the county extension office prior to the State Fair deadline. Documents can be downloaded from the SDSU Extension website at extension.sdstate.edu/south-dakota-4-h/competitions-state-fair.

Place Setting

Contestants will display a place setting that coordinates with the recipe and menu chosen. All dishes (**including serving dish or pitcher**) and utensils needed to consume the foods in the menu should be included with the setting. Recipe and menu must be displayed. A center piece is not required for beginners. If you do include a centerpiece, it will be judged. Centerpieces are required for juniors and seniors. See the Place Settings section for definition.

Awards

- Entries will be rated purple, blue, red and white.
- The location for announcing state fair ribbon placings and awards will be listed in the posted schedule.

Contestant Checklist

- Customized MyPlate Plan printout
- Recipe worksheet
- Menu worksheet

- Serving Size worksheet
- Cost per Serving worksheet (**seniors only**)

Day of contest:

- Two copies of recipe on index cards (3 x 5-inch or 4 x 6-inch - recipe prep and place setting)
- One copy of menu on index card (3 x 5-inch or 4 x 6-inch - place setting)
- All equipment, utensils, and ingredients needed to prepare the recipe
- One complete place setting

Beginners

Eligibility

- Beginner contestants are 8-10 years old as of January 1 of the current year.
- Any 4-H member who participated at a county level qualifying event is eligible to register for the State Special Foods Contest. Registration is completed by the family through Fair Entry.
- Contestants who participated in the past are encouraged to try a recipe from a different food group.

Place Setting

Nutritious drinks should be served from a pitcher. The pitcher stays at the place setting so it should coordinate with the dinnerware.

Nutrition Knowledge for Beginners

Knowledge of good nutrition is important to help you grow strong and healthy. A large part of the contest will focus on your understanding of nutrition.

Listed below are the types of information you should know for the contest if you are in the Beginner Age Division. You will talk about this information with the nutrition judge.

**Study the Choose MyPlate information presented in this Handbook and your customized MyPlate Plan printout.*

Choose MyPlate

For the contest, you will need to name the five food groups from Choose MyPlate.

1. Fruits
2. Vegetables
3. Protein
4. Dairy
5. Grains

GROUP	NUTRIENT	FOOD SOURCES	INGREDIENTS FROM MY RECIPE THAT ARE GOOD SOURCES OF THIS NUTRIENT
1.	Water	Water, beverages and foods containing water	
2.	Protein	Meat, fish, poultry, milk, cheese, yogurt, dried beans/peas, peanut butter and tofu	
3.	Carbohydrates	Breads/cereals, rice, pasta, fruits, vegetables, sugars and honey	
4.	Fats	Butter, margarine (including foods containing butter/margarine) whole milk, meat, egg yolk, cheese, nuts and fried foods.	
5.	Vitamins:		
	<i>Vitamin A</i>	Liver, whole milk, some cheese, egg yolk, dark green leafy vegetables, yellow fruits/vegetables and butter	
	<i>Vitamin D</i>	Milk, exposure to sunlight and foods fortified with Vitamin D	
	<i>Vitamin C</i>	Citrus fruits (oranges, grapefruit, lemons, etc.), tomatoes, cantaloupe, cabbage, broccoli, kale and potatoes	
6.	Minerals:		
	<i>Calcium</i>	All forms of milk, cheese, yogurt, salmon with bones, clams or oysters, shrimp, kale, collards, turnip greens and broccoli	
	<i>Iron</i>	Red meats, fish, poultry, shellfish, eggs, legumes, iron-fortified cereals/breads and dried fruits	

2020 Dietary Guidelines

From your customized *MyPlate Plan*, you need to know:

- How many servings or the amount of food that you need (for your age and physical activity level) each day from each food group.
- The food group in which each of your recipe ingredients fit.

Nutrients

A nutrient is something our bodies need to grow properly. We get nutrients from the foods we eat each day. Each nutrient does a special job in our bodies to keep us healthy. For the contest, beginners will need to know the six main nutrients: water, protein, carbohydrates, fats, vitamins and minerals.

The table on page 4 lists the six nutrients and their food sources. The column on the far right will help you identify which ingredients in your recipe are sources of each nutrient. It is optional for you to fill out this column; however, it is a good study tool.

Examples of General Questions Nutrition Judges May Ask Beginners

- Based on Choose My Plate, how much of your plate is fruit? Vegetables?
- Name two or more protein foods that you eat often.
- What are the six nutrients?
- How do you get Vitamin C each day or almost every day? Which foods and/or beverages?
- Calcium is important for building strong bones. Name two or more foods that have a good supply of calcium.
- Name some things that you should cut back on or limit in your foods.
- From your *MyPlate Plan*, how many servings from each food group do you need daily?

Juniors Eligibility

- Junior contestants are 11-13 years old as of January 1 of the current year.
- Any 4-H member who participated at a county level qualifying event is eligible to register for the State Special Foods Contest. Registration is completed by the family through Fair Entry.
- Contestants who participated in the past are encouraged to try a recipe from a different food group.

Nutrition Knowledge for Juniors

Knowledge of good nutrition is important to help you grow strong and healthy. A large part of the contest will focus on your understanding of nutrition.

Listed below are the types of information you should know for the contest if you are in the Junior Age Division. You will talk about this information with the nutrition judge.

**Study the Choose MyPlate information presented in this Handbook and your customized MyPlate Plan printout.*

Choose MyPlate

For the contest, you will need to name the five food groups from Choose MyPlate and the number of servings for each food group from your *MyPlate Plan*.

1. Fruits
2. Vegetables
3. Protein
4. Dairy
5. Grains

2020 Dietary Guidelines

You also need to know the four overarching guidelines that encourage healthy eating patterns at each stage of life:

1. Follow a healthy dietary pattern at every life stage.
 - Consume a healthy eating pattern that includes all 5 food groups
 - All food and beverages choices matter
 - Choose a healthy eating pattern at appropriate calorie level for you
 - Limit saturated fat, trans fat, added sugar and sodium
2. Focus on meeting food group needs with nutrient-dense foods and beverages, and stay within calorie limits.
 - Choose nutrient-dense foods
 - Eat a variety of fruits and vegetables
 - Eat a variety of protein foods, including seafood, lean meats, poultry, eggs, nuts, legumes and seeds
 - Make half your plate fruits and vegetables at each meal
3. Limit foods and beverages higher in added sugars, saturated fats and sodium.
 - Select fruit for dessert instead of other sugary options
 - Only eat high-fat and high-sugar foods such as cookies, cakes, sausages, hotdogs and pizza occasionally (not daily)
 - Use spices instead of salt in recipes
 - Limit added sugars to less than 10% of calories per day
 - Limit saturated fats to less than 10% of calories per day
 - Use Nutrition Facts Labels and ingredient lists
4. Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences,

- cultural traditions and budgetary considerations. Nutrient dense foods are rich in vitamins, minerals, and other nutrients important for health, without too much saturated fat, added sugars and sodium.
- Expose yourself to different types of food early in life to enjoy a variety of foods
 - Add spices and herbs to flavor foods that reflect specific cultures
 - Shop sales and buy in season fruits and vegetables

From your customized *MyPlate Plan*, you need to know:

- How many servings or the amount of food that you need (for your age and physical activity level) each day from each food group
- Which food group each of your recipe ingredients fit
- What an appropriate serving size is from each food group

Nutrients

A nutrient is something our bodies need to grow properly. We get nutrients from the foods we eat daily. Each nutrient does a special job in our bodies to keep us healthy.

For the contest, juniors need to know:

- The six main nutrients: water, protein, carbohydrates, fats, vitamins and minerals
- The nutrients found in each ingredient. (e.g., Ingredients from my recipe that contain carbohydrates are oranges and pasta.)
- At least one function of each nutrient in their recipe (e.g., Carbohydrates are needed for energy and oranges and pasta have carbohydrates in them.)
- The functions of specific vitamins and minerals if present in the recipe (e.g., Oranges contain Vitamin C, which is needed for wound healing. Pasta contains B Vitamins, which help keep my skin and hair healthy.)
- The table on the next page lists the six nutrients, the function of each and the food sources. The column on the far right will help you identify which ingredients in your recipe are sources of each nutrient. You are not required to fill out this column; however, it is a good study tool.

Examples of General Questions Nutrition Judges May Ask Juniors

- Based on Choose My Plate, how much of your plate should be fruits? Vegetables? Protein foods?
- Explain the four overarching guidelines of the Dietary Guidelines.
- Name two or more protein foods that you eat often.
- Describe some ways that you can achieve the Dietary Guidelines for Healthy Living.
- How do you get Vitamin C each day or almost every day? Which foods and/or beverages?
- Calcium is important for building strong bones. Name some foods that have a good supply of calcium.
- Name some things that you should cut back on or limit in your foods.
- From your *MyPlate Plan* printout, how many servings from each food group do you need daily?

GROUP	NUTRIENT	FUNCTION IN THE BODY (KNOW AT LEAST ONE FUNCTION FOR THE CONTEST)	FOOD SOURCES	INGREDIENTS FROM MY RECIPE THAT ARE GOOD SOURCES OF THIS NUTRIENT
1.	Water	<ul style="list-style-type: none"> Carries other nutrients like vitamins and minerals to cells in the body Helps keep our body temperature at 98.6°F 	<ul style="list-style-type: none"> Water Beverages Foods containing water 	
2.	Protein	<ul style="list-style-type: none"> Build and repair muscles Provide calories (energy) for the body 	Meat, fish, poultry, milk, cheese, yogurt, dried beans/peas, peanut butter and tofu	
3.	Carbohydrates	<ul style="list-style-type: none"> Comes in three forms: Starch, Sugar and Fiber. Foods with: Starch and sugar provide calories (energy) for the body Fiber helps your body eliminate waste products 	<ul style="list-style-type: none"> Starch: White/whole grain breads, rice, pasta/cereals, vegetables Sugars: Table sugar, fruits, milk, puddings, yogurt, honey Fiber: Fruits, vegetables, whole grain breads/cereals, rice, pasta 	
4.	Fats	<ul style="list-style-type: none"> Provide calories (energy) for the body Carry Vitamins A, D, E and K to our cells 	Butter, margarine (including foods containing butter/margarine) whole milk, meat, egg yolks, cheese, nuts	
5.	Vitamins:	Helps our body use other nutrients (protein, carbohydrates and fats)		
	<i>Vitamin A</i>	Helps: <ul style="list-style-type: none"> Keep our skin healthy Eyes adjust to dim light 	Liver, whole milk, some cheese, butter, egg yolk, dark green leafy vegetables such as spinach, kale, collard greens, etc., deep yellow fruits/vegetables such as sweet potatoes, pumpkin and cantaloupe	
	<i>Vitamin D</i>	Helps our body use calcium to build strong bones and teeth	Milk Exposure to sunlight Foods fortified with Vitamin D	
	<i>Vitamin C</i>	Helps the body: <ul style="list-style-type: none"> Heal wounds Build strong bones, teeth and cells 	Citrus fruits (oranges, grapefruit, lemons, etc.), pineapple, kiwi, tomatoes, strawberries, cantaloupe, cranberries, cabbage, broccoli, cauliflower, kale, Brussels sprouts, potatoes, peppers, spinach	
	<i>Thiamin (B1)</i> <i>Riboflavin (B2)</i> <i>Niacin</i>	B Vitamins (thiamin, niacin riboflavin) help: <ul style="list-style-type: none"> Promote good appetite and digestion Keep skin, eyes, tongue and nervous system healthy 	<ul style="list-style-type: none"> Whole grains Enriched breads/cereals Rice Pasta 	
	<i>Folic Acid</i>	Helps keep our blood healthy	<ul style="list-style-type: none"> Deep green leafy vegetables such as spinach, mustard greens, etc., okra, asparagus, Brussels sprouts Citrus fruits such as oranges, grapefruit, etc., strawberries Enriched breads/cereals Beans such as kidney, black, etc. Sunflowers 	
6.	Minerals:	<ul style="list-style-type: none"> Needed for normal growth and development Help maintain the health of bones and blood 		
	Calcium	<ul style="list-style-type: none"> Builds strong bones and teeth Assists in the clotting of blood 	<ul style="list-style-type: none"> Milk, cheese, yogurt, cottage cheese, pudding made with milk Fortified orange juice and soy milk Tofu Canned fish with bones 	
	<i>Iron</i>	<ul style="list-style-type: none"> Helps to make healthy red blood cells Carries oxygen to muscles 	<ul style="list-style-type: none"> Beef, pork, poultry, shellfish, eggs Lentils, beans such as black, kidney, pinto, white Soybeans Iron-fortified cereals/breads Dried fruits 	

Seniors

Eligibility

- Senior contestants are 14-18 years old as of January 1 of the current year.
- Any 4-H member who participated at a county level qualifying event is eligible to register for the State Special Foods Contest. Registration is completed by the family through Fair Entry.
- Contestants who participated in the past are encouraged to try a recipe from a different food group.

Nutrition Knowledge for Seniors

Knowledge of good nutrition is important to help you grow strong and healthy. A large part of the contest will focus on your understanding of nutrition.

Listed below are the types of information you should know for the contest if you are in the Senior Age Division. You will talk about this information with the nutrition judge.

For the contest, you will need to know the following Choose MyPlate and *MyPlate Plan* information and strategies for implementing the *Dietary Guidelines for Americans* into your *MyPlate Plan*.

Choose MyPlate

The names of the five food groups from Choose My Plate:

1. Fruits
2. Vegetables
3. Protein
4. Dairy
5. Grains

MyPlate Plan

- How many servings or the amounts of food do you need each day from each of the five food groups — for your age and physical activity level?
- What is an appropriate serving size for each food group (e.g., One serving of fruit is ½ cup canned or one cup raw. One serving of dairy is 1 cup milk or 1 ounce hard cheese.)?

2020 Dietary Guidelines

You also need to know the four overarching guidelines that encourage healthy eating patterns at each stage of life.

1. Follow a healthy dietary pattern at every life stage.
 - Consume a healthy eating pattern that includes all 5 food groups
 - All food and beverage choices matter
 - Choose a healthy eating pattern and appropriate calorie level for you
 - Limit saturated fat, trans fat, added sugar and sodium
2. Focus on meeting food group needs with nutrient-dense foods and beverages, and stay within calorie limits.
 - Choose nutrient-dense foods
 - Eat a variety of fruits and vegetables
 - Eat a variety of protein foods, including seafood, lean meats, poultry, eggs, nuts, legumes and seeds
 - Make half your plate fruits and vegetables at each meal
3. Limit foods and beverages higher in added sugars, saturated fats and sodium.
 - Select fruit for dessert instead of other sugary options
 - Only eat high-fat and high-sugar foods such as cookies, cakes, sausages, hotdogs and pizza occasionally (not daily)
 - Use spices instead of salt in recipes. Limit sodium to less than 2,300 milligrams (1 teaspoon) per day.
 - Limit added sugars to less than 10% of calories per day
 - Limit saturated fats to less than 10% of calories per day
 - Use Nutrition Facts Labels and ingredient lists
4. Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences, cultural traditions and budgetary considerations. Nutrient dense foods are rich in vitamins, minerals, and other nutrients important for health, without too much saturated fat, added sugars and sodium.
 - Expose yourself to different types of food early in life to enjoy a variety of foods
 - Add spices and herbs to flavor foods that reflect specific cultures
 - Shop sales and buy in season fruits and vegetables

Nutrients

A nutrient is something our bodies need to grow properly. We get nutrients from the foods we eat daily. Each nutrient does a special job in our bodies to keep us healthy.

For the contest, Seniors need to know:

- The six main nutrients: water, protein, carbohydrates, fats, vitamins and minerals
- The nutrients found in each ingredient. (e.g., Pasta is a carbohydrate source.)
- At least two functions of each nutrient in their recipe (e.g., Carbohydrates are needed for energy and fiber aids in elimination; in my recipe oranges provide carbohydrates and fiber and pasta provides carbohydrates.)
- The functions of specific vitamins and minerals only if it is present in your recipe (e.g., Oranges contain Vitamin C which is needed for wound healing. Pasta contains B Vitamins which help keep my skin and hair healthy.)

The tables on the following pages list the six nutrients, the functions of each and the food sources. The column on the far right will help you identify which ingredients in your recipe are sources of each nutrient. You are not required to fill out this column; however, it is a good study tool.

Examples of General Questions Nutrition Judges May Ask Seniors

- Based on Choose My Plate, how much of your plate is fruits? Vegetables? Protein?
- Explain the four overarching guidelines of the *Dietary Guidelines*.
- Describe some ways that you can make every bite count with the *Dietary Guidelines*.
- Name three or more protein foods that you eat often.
- Which foods do you eat for a source of iron in your daily diet?
- Calcium is important for building strong bones. Name two or more foods that have a good supply of calcium.
- Name the six nutrients and two functions of each.
- Name some things that you should cut back on or limit in your foods.
- From your *MyPlate Plan* printout, how many servings from each food group do you need daily?

GROUP	NUTRIENT	FUNCTION IN THE BODY (KNOW AT LEAST TWO FUNCTION FOR THE CONTEST)	FOOD SOURCES	INGREDIENTS FROM MY RECIPE THAT ARE GOOD SOURCES OF THIS NUTRIENT
1.	Water	<ul style="list-style-type: none"> Carries other nutrients like vitamins and minerals to cells in the body Helps keep our body temperature at 98.6°F Makes up 60 – 70% of one's body weight 	<ul style="list-style-type: none"> Water Beverages Foods containing water 	
2.	Protein	<ul style="list-style-type: none"> Build and repair muscles Provide calories (energy) for the body Are the building blocks of enzymes and hormones. Hormones are responsible for regulating many body functions (e.g., growth, insulin) 	<ul style="list-style-type: none"> Meat Fish Poultry Milk Cheese Yogurt Dried beans/peas Peanut butter Tofu 	
3.	Carbohydrates	<p>Comes in three forms: Starch, Sugar and Fiber. Foods with:</p> <ul style="list-style-type: none"> Starch and sugar provide calories (energy) for the body Fiber helps your body eliminate waste products. It is indigestible. Fiber is found in plant foods. Adequate fiber in the diet may help people be at less risk for developing heart disease and some forms of cancer. 	<p>Starch:</p> <ul style="list-style-type: none"> White/whole grain bread, rice, pasta and cereals, vegetables <p>Sugars:</p> <ul style="list-style-type: none"> Table sugar, fruit, milk, pudding, yogurt, honey <p>Fiber:</p> <ul style="list-style-type: none"> Fruit, vegetables, whole grain bread/cereal, rice, pasta 	
4.	Fats	<ul style="list-style-type: none"> Provide calories (energy) for the body Carry Vitamins A, D, E and K to our cells Can be made by our bodies from protein and carbohydrates 	Butter, margarine (including foods containing butter/margarine) whole milk, meat, egg yolk, cheese, nuts	
5.	Vitamins:	Helps our body use other nutrients (protein, carbohydrates and fats)		
	<i>Vitamin A</i>	<p>Helps:</p> <ul style="list-style-type: none"> Keep our skin healthy Eyes adjust to dim light Keep the lining of the mouth, nose, throat and digestive tract healthy and resistant to infection 	Liver, whole milk, some cheese, butter, egg yolk, dark green leafy vegetables such as spinach, kale, collard greens etc., deep yellow fruits and/or vegetables such as sweet potatoes, pumpkin and cantaloupe	
	<i>Vitamin D</i>	<ul style="list-style-type: none"> Helps our body use calcium to build strong bones and teeth Prevents rickets 	<ul style="list-style-type: none"> Milk Exposure to sunlight Foods fortified with Vitamin D 	
	<i>Vitamin C</i>	<p>Helps the body:</p> <ul style="list-style-type: none"> Heal wounds Build strong bones, teeth and cells Hold cells together and strengthens the walls of blood vessels 	Citrus fruits (oranges, grapefruit, lemons, etc.), pineapple, kiwi, tomatoes, strawberries, cantaloupe, cranberries, cabbage, broccoli, cauliflower, kale, Brussels sprouts, potatoes, peppers, spinach	
	<i>Thiamin (B1)</i> <i>Riboflavin (B2)</i> <i>Niacin</i>	<p>B Vitamins (thiamin, niacin riboflavin) help:</p> <ul style="list-style-type: none"> Promote good appetite and digestion Keep skin, eyes, tongue and nervous system healthy Body cells obtain energy from food 	Whole grains, enriched breads/ cereals, rice and pasta	

GROUP	NUTRIENT	FUNCTION IN THE BODY (KNOW AT LEAST TWO FUNCTION FOR THE CONTEST)	FOOD SOURCES	INGREDIENTS FROM MY RECIPE THAT ARE GOOD SOURCES OF THIS NUTRIENT
5 (con't)	<i>Folic Acid</i>	Helps <ul style="list-style-type: none"> • Keep our blood healthy • Prevent certain birth defects 	<ul style="list-style-type: none"> • Deep green leafy vegetables such as spinach, mustard greens, etc., okra, asparagus, Brussels sprouts • Citrus fruits such as oranges grapefruit, etc. • Strawberries • Enriched breads/cereals • Beans such as kidney, black, etc. • Sunflowers 	
6.	Minerals:	<ul style="list-style-type: none"> • Needed for normal growth and development • Help maintain the health of bones and blood 		
	Calcium	<ul style="list-style-type: none"> • Builds strong bones and teeth • Assists in the clotting of blood 	<ul style="list-style-type: none"> • Milk, cheese, yogurt, cottage cheese, pudding made with milk • Fortified orange juice and soy milk • Tofu • Canned fish with bones 	
	<i>Iron</i>	Helps to: <ul style="list-style-type: none"> • Make healthy red blood cells • Utilize energy • Carries oxygen to muscles • Helps to utilize energy 	<ul style="list-style-type: none"> • Beef, pork, poultry • Shellfish • Eggs • Lentils, beans such as black, kidney, pinto and white • Soybeans • Iron-fortified cereals/breads • Dried fruits 	

Selecting the Recipe

Selecting the Recipe

Contestants should select their recipe for a personal reason. It may be a favorite recipe for you, your family or friends. It may be a challenging recipe that encourages you to try a new food. Judges may ask contestants why they selected their recipe.

Recipes must fall within one of the MyPlate food groups - fruit, vegetable, dairy, grain or protein. A food that falls primarily into the fats, sweets, and/or alcohol group will not be accepted.

Time

Youth have 90 minutes to complete the contest, which includes: preparing the recipe, setting the table and completing the nutrition interview. Plan accordingly.

Preparation

Contestants need to measure a minimum of three ingredients at the contest. To encourage a variety of recipes, contestants may use a maximum of two ingredients that are pre-cooked, pre-measured or pre-cut and brought to the contest. If the recipe you are preparing will be served with another food (for example, hamburger on a bun or a meat dish on rice), you are not required to prepare the entire menu.

Recipe

One serving of your recipe must provide one serving from the MyPlate food group in which it was entered. Several foods from one food group can be used in combination to achieve one full serving (for example, $\frac{1}{2}$ cup milk and $\frac{3}{4}$ oz. of hard cheese equals one serving from dairy group and qualifies as one serving).

Use the Special Foods Recipe Worksheet ([extension.sdstate.edu/state-fair](http://sdstate.edu/state-fair)) and the Serving Size Guide (starting on page 31) to determine if your recipe will qualify for the contest.

When writing the recipe, be sure to identify the correct size of jar/can/package. Example: ounces, pounds. The recipe should provide 2–6 servings.

Youth must prepare the food from the food group in which you enter.

Example A hamburger bun cannot be entered in the grain group unless you make the bun during the contest.

Example For a pasta dish or pasta casserole entered in the grain group, the contestant must cook the pasta at the event but does not have to make the pasta from scratch.

Experiment

If you are practicing often for the contest, your family may get tired of your recipe. One way to prevent this boredom is to experiment with your recipe. Try different ingredients, such as spices. For example, if it is a fruit or vegetable dish try different combinations other than what it calls for in the original recipe. Who knows, you may come up with your own original recipe for the contest!

Menu Planning

Plan the menu around the recipe you have chosen to make. Choose foods that will complement your recipe based on the following suggestions. Beginners need to plan a one-meal menu or a snack menu. Juniors need to plan a one-meal menu and seniors need to plan a one-day menu.

Color

Mix colors. Be an artist with color! Since we “eat with our eyes,” the selection of colorful food combinations makes eating a greater pleasure. In arranging foods on the plate, place foods of contrasting color next to each other whenever possible.

Garnishes add appeal to food, but they should be simple as well as appropriate in flavor and color. They should also be edible, although you may choose not to eat them.

Flavor

Combine flavors. Build “appetite appeal” as well as “eye appeal” into your meals with flavor and flavor combinations.

Contrast is always good. Complement bland foods with tang and zip. Milk and mild flavors are best served first, stronger ones later in the meal, with sweets usually thought of as a suitable finale.

Rely on flavor mates (foods made for each other) such as pork with apples, bacon and eggs, peanut butter and jelly.

Some flavors can cover or hide other flavors. Meat, for example, can be drowned in too much ketchup, mustard, pickles, or onions. Be careful not to hide the flavor of your recipe.

Spice is nice, as are herbs, when used to enhance flavors in food. However, a good cook uses them wisely.

<i>Melon Balls</i>	<i>Fruit Dip</i>	<i>Apple Slices</i>
	<i>Whole Wheat Wafer</i>	
	<i>Lean Broiled Sirloin Steak</i>	
<i>Baked Potatoes</i>		<i>Sour Cream</i>
	<i>Mixed Green Salad</i>	
	<i>Hot Rolls</i>	
	<i>Lemon Ice</i>	
<i>Coffee</i>		<i>Milk</i>

Use descriptive terms that communicate temperature, texture, color, or other special characteristics of the food or method of preparation.

	<i>Chilled Apple Cider</i>	
<i>Cheddar Cheese Cubes</i>		<i>Rye Chips</i>
	<i>Ham-Rice-Mushroom Casserole</i>	
	<i>Zucchini</i>	
<i>Crusty Rolls</i>		<i>Whipped Butter</i>

Menus should be on 3 x 5-inch or 4 x 6-inch index cards and on the menu worksheet for the contest. Be sure to include your name, county and menu occasion (family, guest, party, holiday, picnic, snack **(beginner division only)** or formal meal) in the upper right hand corner.

Garnishes

Before we taste food, our eyes often “feast” upon what is set before us. This helps to excite our appetite. Good cooks always invest a little extra attention by using a garnish to make their recipe look special.

A garnish is any edible decoration added to a dish and/or individual serving. Garnishes can be as simple as a dash of paprika or as elaborate as a food sculpture that garnishes the table.

Variety and contrast in color, form, and texture are important to remember when deciding on a garnish for your dish. Garnishes should be appropriate to the food with which they are served and should harmonize in flavor.

Parsley is a typical garnish. But try to use your imagination and come up with something unique. An ingredient from your recipe can be used in an interesting way as a garnish.

For the contest, exhibitors must garnish the following:

- Place setting with one serving of the prepared recipe.
- Serving dish/pitcher
- Sample for tasting judges

Setting the Table

Place Settings

A “cover” means everything used at each individual’s place setting. The “cover” includes the dinnerware, glasses/cups, flatware, tablecloth or placemat, and napkin used at each individual place setting. The recipe and menu you have chosen influence the type of items you will use in your cover.

Your place setting should complement the theme you are trying to achieve with the selected menu and occasion.

The purpose of setting the table cover is to make the act of eating as easy as possible. Common sense and courtesy dictate that place settings include whatever is necessary for eating a meal, and that they be placed conveniently. It discourages the display of non-essential utensils and dishes. For instance, if you are not serving coffee, you would not set a cup and saucer at the place setting.

Place Setting Tips

(Refer to illustrations on pages 17 – 21)

When planning your place setting, remember the following:

You need to provide only the utensils that will be needed to eat the meal you have planned. But, you may also decide to use all three basic pieces – fork, knife and spoon. This depends on the individual preference of the contestant.

The placemat should be even with the edge of the table. If using a tablecloth, it should have an 8-12” drop.

Place all silverware and tableware one inch from the edge of the table. If your placemat is oval, follow the curve of the mat. The lowest piece of silverware should be one inch from the edge.

Try different folds with the napkin. If you use the traditional fold/style, be sure the open corners of the napkin are in the lower right hand corner.

A dinner napkin is 20”, 22” or 24” square. A luncheon napkin is 17” square and a tea napkin is 12” square.

Do **NOT** place anything on top of the napkin.

If the glass will only half fit on the placemat, it is better to set it on the table (off the placemat) to keep it level and avoid spills.

When placing silverware on the table, place as many of

each item as needed to eat the meal. The general rule for the guest is to use the silverware starting from the outside. In other words, if you had three forks, you would use the one farthest to the left first. The last one to be used would be the one closest to the plate.

The salad fork is placed to the left of the dinner fork if the salad is served before the main dish. The salad fork is placed to the right of the dinner fork if the salad is served with the main dish.

The cutting edge of the knife should always be laid toward the plate. Make sure it does not get tucked under the rim of the plate. You should be able to pick the knife up without hitting the plate.

Be sure everything that you use to set the table is clean and free of water spots or fingerprints.

Be sure the texture and color of the dinnerware, flatware, glassware, centerpiece, napkin, and placemat/tablecloth coordinate.

You will have 32 inches to set the table. Make sure your dishes comfortably fit this space.

Your menu and recipe influence the table setting you choose. See *Basic Table Setting* for examples of correct placement for items commonly used. You may not need to use all the utensils listed to serve your menu. These diagrams illustrate sample menus and place settings. The examples show you where the eating utensils should be placed to make eating as easy as possible.

Centerpieces

Centerpieces are another way to show your creativity. Beginners **DO NOT** have to bring a centerpiece for this contest, but if you do include a centerpiece, it will be judged. Juniors and Seniors **MUST HAVE** a centerpiece with their table settings.

Basic Principles

- Simplicity is the key to beauty. Do not overdo it.
- Try unique items. Candles and flowers are good options but also consider unusual items, such as pinecones, fresh fruits/vegetables, or small decorative objects.
- Be sure that items are not offensive where people are eating, such as very strong aromas. Watch for bugs or other foreign matter when using natural objects.
- Centerpieces can consist of more than one item, but all items should coordinate and not be too spread

out. Remember that a centerpiece is viewed from all sides. The centerpiece should be equally visible to all people seated at the table.

- When selecting a centerpiece it should act as a focal point tying your menu and place setting together.
- Consider the height of the arrangement. Keep the view and conversation zones open. All guests should be in clear view of each other to promote conversation.
- Candles should be lit when they are used as a centerpiece; however, **DO NOT LIGHT CANDLES** for the contest. Use an appropriate height of candles so that when lit, they will not interfere with the view of the guests.
- A mat of some kind is to be placed underneath the centerpiece to “ground” it. This mat should coordinate with the place setting. It could be the same kind of placemat or napkin as the one used for the place setting.

Design Elements

- Keep the centerpiece in proportion to the size of the table. Do not choose a centerpiece that is too large or too small for the table. If it is too large, it will overpower the space. If it is too small, the centerpiece will seem lost and insignificant.
- Color is one of the most important considerations. The centerpiece can help to draw the entire table setting together. Coordinate the colors in the centerpiece with the colors in the place setting.
- Select containers carefully. The container should be in proportion to its contents or the effectiveness of the arrangement may be lost.
- Use a variety of textures, colors, lines, shapes, and sizes in the centerpiece to make it interesting.

Beverage-ware

Some type of beverage is usually served with the meal or snack. Therefore, at least one piece of beverage-ware (glasses/cups) should be included in your table setting.

If you list more than one beverage on your menu (for example, milk and fruit juice) then two appropriate glasses should be provided at the setting. If only one beverage is listed on the menu, (water is assumed to be served if nothing is listed on the menu for a beverage) then one piece of beverage-ware should be included in the table setting.

A water glass may or may not be included at the place setting in addition to other beverages listed on the menu. It is up to the host/hostess whether an additional glass for water is placed at the setting.

Water does not need to be written on the menu. It may be written on the menu if a glass is provided.

If you do not list coffee on your menu, you do not need to put a cup and saucer at your place setting.

Serving Dishes and Utensils

Table presentation of the recipe prepared is important for a successful and pleasing meal. Matching or coordinating serving dishes and utensils should be used for a unified look at the table.

Recipes that are prepared in blenders, fry pans, grills, etc. should be transferred to an appropriate pitcher, serving dish, or plate.

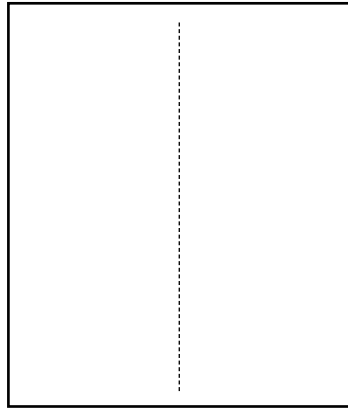
Casserole-type recipes, salads, etc. may be prepared and served in the same dish, if the dish is also a serving dish. The preparation/serving dish should be appropriate for the menu item and blend well with the other dishes used at the place setting. Serving dishes must be garnished and included with the place setting.

Basic Place Setting

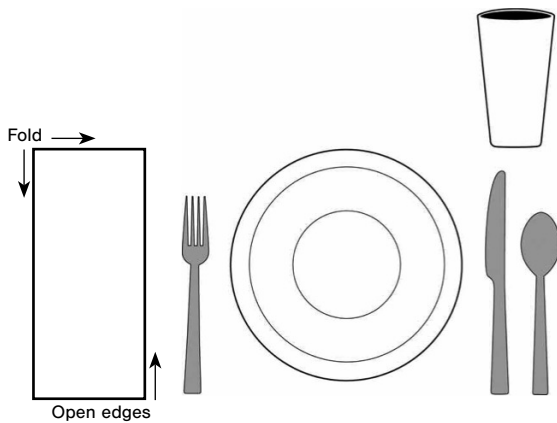
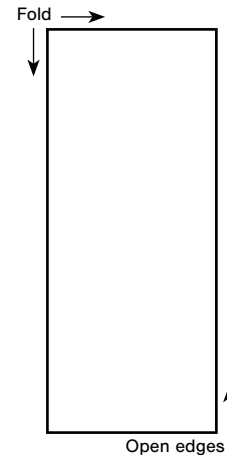
(May be used at any meal)

Your menu and recipe influence the number and type of dinnerware, flatware, and glasses/cups that you choose for your place setting.

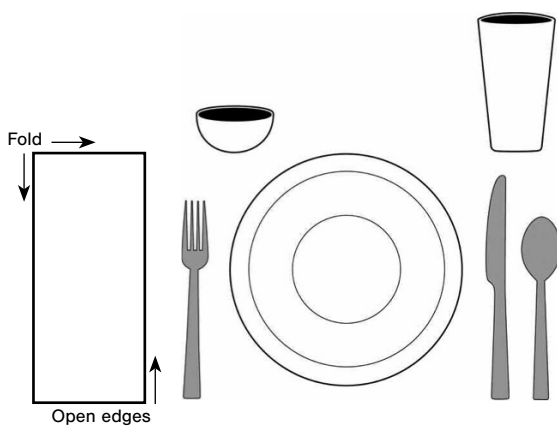
Unfolded Napkin



Folded Napkin



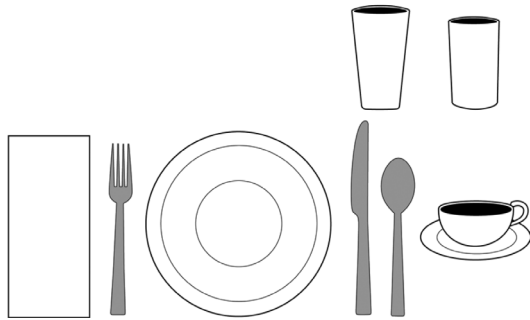
Grilled Reuben Sandwich
Dill Pickles
German Potato Salad
Milk



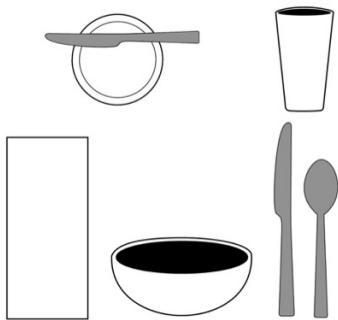
Turkey Tetrazzini
Crisp Relishes
French Bread
Chocolate Pudding
Milk

Breakfast

Your menu and recipe influence the number and type of dinnerware, flatware, and glasses/cups that you choose for your place setting.



Tomato Juice
Toasted English Muffins
Sausage Links
Milk Coffee

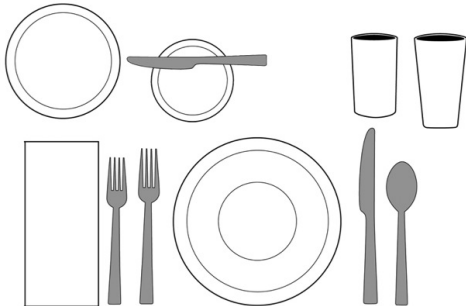


Oatmeal Granola
with Fresh Strawberries
*Toast Orange Marmalade
Milk

**May use a separate bread plate or the
plate under the bowl.*

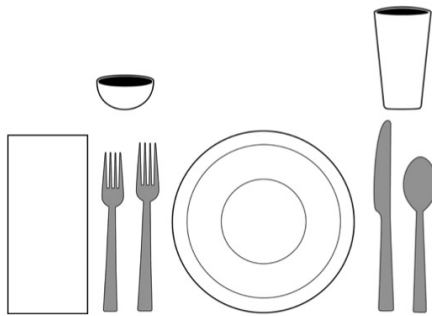
Dinner/Lunch

Your menu and recipe influence the number and type of dinnerware, flatware, and glasses/cups that you choose for your place setting. In casual family settings, bread plates are often not needed.



Sweet & Sour Pork
Chow Mein Noodles
Asparagus-Lettuce Salad
Fan Tan Rolls
Milk Iced Tea

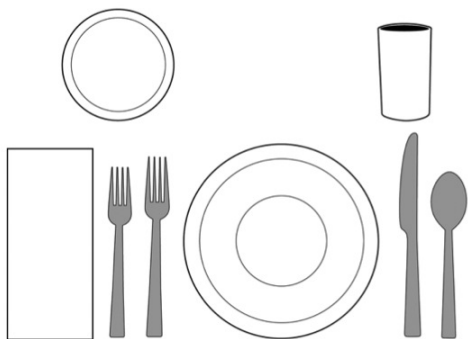
Raspberry Pie
(dessert served following the meal)



Tossed Green Salad

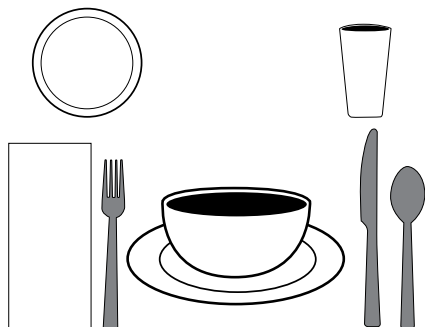
Lasagna
Skillet Zucchini
Garlic Bread
Fresh Fruit Compote
Cookies
Milk

(salad served before meal)



Beef Roll-Ups
Buttered Noodles
Green Peas w/ Mushrooms
Perfection Salad Crusty Rolls
Milk

Blueberry Cheesecake
(dessert served following the meal)



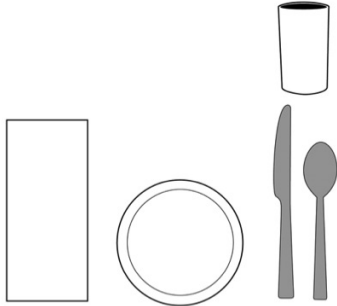
Cheesy Taco Soup over Cilantro Lime Rice

Avocado, Tomato and Corn Salad

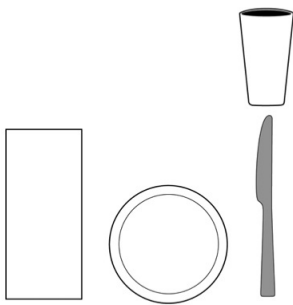
Milk

Snack

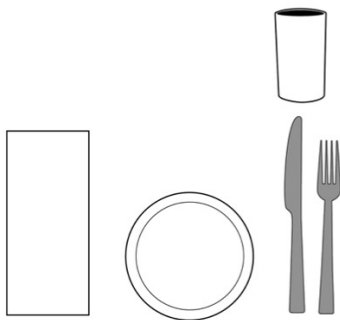
Your menu and recipe influence the number and type of dinnerware, flatware, and glasses/cups that you choose for your place setting.



Lemon Bread
Refreshing Orange Sipper

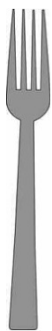


Whole Wheat Muffins
Whipped Strawberry Butter
Milk

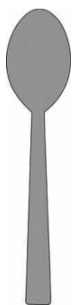


Pizza Sandwiches
Strawberry-flavored Milk

Glossary of Place Setting Utensils



Dinner Fork



Spoon



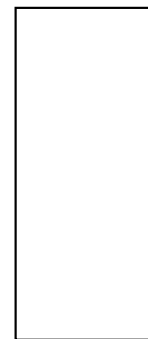
Salad Fork



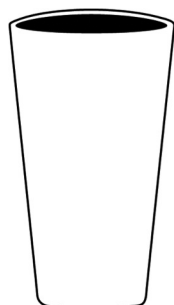
Knife



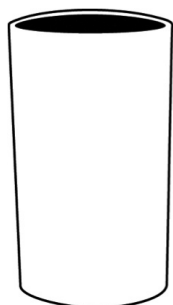
Dessert Fork



Napkin



Milk Glass



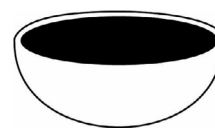
Juice/Water Glass



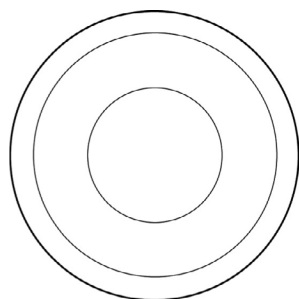
Cup and Saucer



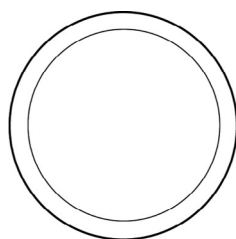
Dessert Cup



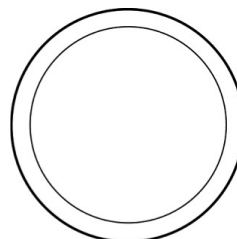
Bowl



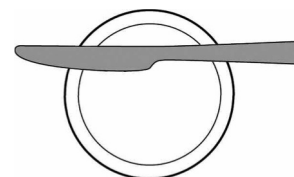
Dinner Plate



Salad Plate



Dessert Plate



Bread and Butter Plate
with Knife

Preparing the Cook

The Cook

There are several techniques you will want to consider for the Special Foods Contest. The following are some suggestions.

Appearance

Avoid long, flowing sleeves that may come in contact with your food or be a fire hazard.

Wear an apron or some type of protection for your clothing. Full-length aprons provide better protection than short aprons that leave the chest unprotected.

Wear comfortable close-toed shoes. Avoid open-toe sandals, as they do not protect your feet. There are many things that can happen when you are cooking that could injure your feet, so protect them!

Wear something on your head to pull back your hair such as a scarf, hair net, or cap. This is for cleanliness purposes and keeps your hair from falling in the food. Be clean and well groomed.

Wash your hands before starting. Have a wet cloth at your workstation to periodically wipe your hands. Be sure to wash your hands often while preparing your food, especially after coughing, sneezing, or handling raw meats.

Attitude

Relax and enjoy yourself. Smile and be friendly to the judges. The judges understand youth and any suggestions they give are to help you learn and improve your skills.

Do your own work and be careful not to bother those around you. Many mistakes can be made in a recipe, so it is best to give all your attention to what you are doing.

Work Area: Organization, Neatness, and Safety

After you have set up your work area and are waiting to start, cover your equipment with clean towels. This keeps your area looking neat. Keep your area neat by cleaning up after yourself. **Contestants are expected to cover their work area with wax paper or parchment paper.** The use of towels and counter cover (wax or parchment paper) promote food safety in contest settings. Use the clean towels to cover your work area anytime you leave.

Keep your work area orderly. Using trays or cookie sheets will help with this. When you start, have all of your necessary items on one tray to one side. When you

use the item and are done with it, transfer it to a tray on the other side. This keeps you working neatly and also prevents mistakes. When you are done, your beginning tray should be empty. If it is not, you will know that you forgot something.

Stay within your area. Do not overlap into the area that belongs to someone else. At the State Fair your work space will be a minimum of 36 inches. Practice at home in a limited work space. When you are finished, make sure that your work area is completely clean.

To make it handy for yourself, tape a brown paper bag to the edge of the counter where you are working. This is handy for all garbage and when you are done, you need to make only one trip to the garbage can.

If you need to walk some distance to use the stove or sink, be sure to walk carefully. Use dry potholders to prevent burns. If you are draining something, be sure to carry something underneath the item to catch all drips. Liquid on the floor is a hazard!

Watch the traffic flow. This prevents traffic jams and accidents.

If you have things on the stove, turn the handles inward to avoid spills and burns.

Use correct measuring techniques. **BE SURE TO MEASURE AT LEAST THREE (3) INGREDIENTS DURING THE EVENT.** The judges will want to see if you can use the proper measuring techniques. Learn the difference between liquid and dry measuring.

Be sure to use a cutting board if you are doing any cutting or chopping. Make sure to wash the cutting board thoroughly in between if you will be cutting raw meat and then cutting another ingredient, or bring two (2) cutting boards. This is to prevent cross-contamination. Hard plastic boards are recommended over wooden boards.

THINK SAFETY! Learn how to use utensils and appliances properly.

If you have any questions on how to operate the appliances (the stove, for instance), please ask for help.

Miscellaneous Tips

Bring along extra ingredients in the case of breakage or spillage.

Determine ahead of time how much of the food you prepare would be considered one serving. You may use

the *MyPlate Plan* printout for serving size guidelines. You will be asked to place one serving on your place setting dish for the judges. For example, if your recipe serves four, then you place one-fourth of it on the place setting dish.

The only food you need to prepare at the contest is your main dish, which is your selected recipe. You **DO NOT** need to bring along the other foods on your menu, unless it is something that is needed for your dish. An example would be if you were preparing pancakes, then you would need to bring syrup or the topping that would be used.

Garnishes are good to use because they decorate the dish. A garnish can add interest, color, and design. Study and experiment with what makes a good garnish.

REMEMBER: You have 90 minutes to complete the contest, which includes: preparing the recipe, setting the table and completing the nutrition interview with the respective judge.

In the interest of food safety, ingredients need to be in their original containers, whenever possible. There may be a few situations when this is not practical, such as flour.

Eggs

How to [properly] crack eggs has become a sensitive topic within the 4-H Special Foods Contest.

Some believe eggs should be cracked with a knife, others believe using the side of the bowl is the way to go. Both methods have the potential for introducing pathogens/ bacteria into the egg/recipe as well as causing bits of egg shell to fall into the raw egg.

For the Special Foods Contest, please use the following steps to safely crack eggs into a separate bowl:

1. Using a clean, flat surface, such as your kitchen counter, grasp the egg in your hand and in one swift, decisive motion tap the egg once against it.
2. Use your thumbs to separate the egg shell where it's cracked and tip the egg into a bowl.

It is best to always crack your eggs into a separate bowl before adding it to the main ingredients or pan. This ensures that the egg is still fresh and no bits of shell remain.

Measure Up!

The secret to successful cooking is measuring correctly. Not all ingredients are measured the same way or with the same kind of cups or spoons. Here are some tips to help you out.

Liquid Ingredients

Use see-through measuring cups to measure liquids such as milk or water. These cups are usually made of glass or plastic and have a spout for pouring and marks on the sides that show you how much liquid you have in the cup.

To Measure:

1. Put the cup on the counter and pour in some of the liquid.
2. Bend down or stand on your tiptoes so your eye is level with the marking on the cup to check if you've poured in the right amount.
 - a. If it's too much, pour a little out.
 - b. If it's not enough, add a little more and check again.

If you are measuring a sticky ingredient, such as honey or corn syrup, spray the cup with a little cooking spray before pouring in the ingredient. The liquid will slide right out!

NOTE: To measure small amounts of a liquid ingredients (e.g., vanilla), use a measuring spoon. These special spoons come in sets of different sizes and you should use these instead of spoons that you eat with.

Dry Ingredients

Dry ingredients, such as flour, powdered sugar, granulated sugar, and baking mixes like Bisquick®, are measured with a set of metal or plastic cups of various sizes that stack inside one another.

To Measure:

1. Choose the cup size that is listed in the recipe.
2. Using a large spoon, fill the cup to the top or little bit higher (don't shake the cup or pack the ingredient into the cup).
3. Hold the cup over a bowl or container; use a metal spatula or the flat edge of a table knife to scrape the excess off the top of the cup. When you're finished, the ingredient should be level with the top of the cup.

NOTE: Use the steps above to measure small amounts of dry ingredients (e.g., baking powder, baking soda, salt or spices) in measuring spoons.

What About Measuring?

Brown Sugar

1. Spoon brown sugar into a metal or plastic measuring cup; then, press down firmly with the back of the spoon.
2. Keep adding brown sugar until it reaches the top of the measuring cup.
3. Scrape a metal spatula across the top of the measuring cup so brown sugar is level.

Margarine or Butter

- Cut off the amount you need with a table knife using the measurement marks on the quarter pound wrappers as your guide (one stick of margarine or butter equals $\frac{1}{2}$ cup and a half stick is $\frac{1}{4}$ cup).
- If the margarine or butter isn't in stick form, use a metal or plastic measuring cup. Use the instructions below for shortening and peanut butter.

Shortening and Peanut Butter

1. Fill a plastic or metal measuring cup, using a spoon or rubber scraper.
2. When the cup is full, scrape a metal spatula across the top.
3. Take the shortening or peanut butter out of the cup by running a rubber scraper around the inside of the cup.

Others

Measure chopped nuts, chocolate chips, shredded cheese and chopped veggies in plastic or metal measuring cups. Spoon the ingredient into the cup until it reaches the top, but don't press down.

Nutrition Knowledge

Participants will be interviewed about their knowledge of nutrition and healthy eating habits. Please check the score sheet for the Nutrition Interview category. Nutrition-type questions are designed to be appropriate for three different age groups. This handbook includes nutritional information for beginners, juniors, and seniors that judges may use in the nutrition interview. Other references include: current *Dietary Guidelines for Americans* and Choose My Plate (USDA).

Nutrition Knowledge According to Age Division

- Beginners, please see pages 4-5
- Juniors, please see pages 5-7
- Seniors, please see pages 8-11

Food Safety

The United States food supply is among the safest in the world, but organisms that you can't see, smell, or taste – bacteria, viruses, and tiny parasites – are everywhere in the environment. The disease-causing microorganisms, called pathogens, can invade food and cause illness, sometimes, severe and even life threatening. Young children, pregnant women, older adults, and persons with weakened immune systems are at greatest risk of foodborne illness.

Handling all foods safely is easy if people practice the following recommendations:

CLEAN. SEPARATE. COOK. CHILL.



CLEAN.

Wash hands and surfaces often.

You cannot see, taste, or smell them. They are sneaky little critters, and they can spread throughout the kitchen and get onto cutting boards, utensils, sponges, countertops, and food. They are foodborne bacteria – and if eaten, they can cause foodborne illness. So, on your mark...get set...GO CLEAN!

The Big 3

Use these three tips to keep your hands, surfaces, and utensils squeaky clean:

1. Wash hands, utensils, and surfaces in hot, soapy water before and after food preparation and especially after preparing raw meat, poultry, eggs or seafood. Also, remember to wash your hands after using the bathroom, changing diapers or handling pets.
2. Cutting boards (including plastic, non-porous, acrylic and wooden boards) should be run through the dishwasher or washed in hot, soapy water after each use. Discard boards that are excessively worn.
3. Consider using paper towels to clean up kitchen surfaces. When done, throw away the towel. If you use cloth towels, wash them often in the hot water cycle of your washing machine.

SEPARATE.

Did you know that improper handling of raw meat, poultry, and seafood can create an inviting environment for cross-contamination? As a result, bacteria, that yucky germ known as BAC!, can spread to food and throughout the kitchen. Learn more about preventing cross-contamination and remember to spread the word — not the bacteria!

SEPARATE – DON'T CROSS-CONTAMINATE!

Keep it Clean: Always wash hands, cutting boards, dishes, and utensils with hot, soapy water after they come in contact with raw meat, poultry or seafood.

Take Two: If possible, use one cutting board for fresh produce and use a separate one for raw meat, poultry and seafood.

Safely Separate: Separate raw meat, poultry and seafood from other foods in your grocery shopping cart and in your refrigerator.

Seal It: To prevent juices from raw meat, poultry, or seafood from dripping onto other foods in the refrigerator, place these raw foods in sealed containers or plastic bags.

Marinating Mandate: Always boil sauce used to marinate raw meat, poultry or seafood before applying to cooked food.

Source: fightbac.org

COOK.

Cook foods to the proper temperatures. Cooking food safely is a matter of degrees!

Cook It Right: Foods are properly cooked when they are heated for a long enough time and at a high enough temperature, to kill harmful bacteria that can cause foodborne illness. These temperatures vary, depending on the type of food.

Food Thermometers: Use a clean food thermometer, which measures the internal temperature of cooked foods, to make sure meat, poultry, egg dishes, casseroles, and other foods are cooked all the way through. Always wash the food thermometer with hot soapy water after using it.

Food thermometers are required for meat, poultry, seafood, and egg dishes.

Eggs: There are many methods for cooking eggs safely, including poaching, hard cooking, scrambling, frying and baking. Cook eggs thoroughly until yolks are firm. Scrambled eggs should not be runny.

Microwave Musts: When cooking in a microwave oven, make sure there are no cold spots in the food where bacteria can survive. For best results, cover food, stir, and rotate for even cooking. Check the temperature in several places to make sure the food is cooked evenly.

TYPES OF FOOD THERMOMETERS

Choose and use the one that is right for you!



Dial Oven-Safe (Bimetal)

- Reads in 1-2 minutes
- Place 2-2½" deep in thickest part of food
- Can be used in roasts, casseroles, and soups
- Not appropriate for thin foods
- Can remain in food while it's cooking
- Heat conduction of metal stem can cause false high reading
- Some models can be calibrated; check manufacturer's instructions



Digital Instant-Read (Thermistor)

- Reads in 10 seconds
- Place at least ½" deep
- Gives fast reading
- Can measure temperature in thin and thick foods
- Not designed to remain in food while it's cooking
- Check internal temperature of food near the end of cooking time
- Some models can be calibrated; check manufacturer's instructions
- Available in "kitchen" stores



Dial Instant-Read (Bimetal)

- Reads in 15-20 seconds
- Place 2-2½" deep in thickest part of food
- Can be used in roasts, casseroles, and soups
- Temperature is averaged along probe, from tip to 2-3" up the stem
- Cannot measure thin foods unless inserted sideways
- Not designed to remain in food while it is cooking
- Use to check the internal temperature of a food at the end of cooking time
- Some models can be calibrated; check manufacturer's instructions

Source: fsis.usda.gov

Recommended Protein Cooking Temperatures

FOOD		DEGREES (FAHRENHEIT)	NOTES
Ground Meat & Meat Mixtures	Beef, Pork, Veal, Lamb	160°F	
	Turkey, Chicken	165°F	
Fresh Beef, Pork, Lamb, Veal	Roasts, steaks, chops	145°F	As measured with a food thermometer before removing meat from the heat source. For safety and quality, allow meat to rest for at least three minutes before carving or consuming. For reasons of personal preference, consumers may choose to cook meat and poultry to higher temperatures.
Poultry	Chicken & Turkey, whole	165°F	
	Poultry breasts, roast	165°F	
	Poultry thighs, wings	165°F	
	Duck, Goose	165°F	
	Stuffing, cooked alone or in the bird	165°F	
Ham	Fresh (raw)	145°F	As measured with a food thermometer before removing meat from the heat source. For safety and quality, allow meat to rest for at least three minutes before carving or consuming. For reasons of personal preference, consumers may choose to cook meat and poultry to higher temperatures.
	Pre-cooked (to reheat)	140°F	
Eggs & Egg Dishes	Eggs	Cook until yolk & white are firm.	
	Egg dishes	160°F	
Fish	All	145°F	
Leftovers & Casseroles	All	165°F	

Source: fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/safe-temperature-chart

USDA Meat and Poultry Hotline

1-888-MPHotline

1-888-674-6854

CHILL.

Refrigerate Promptly and Properly: Refrigeration of foods at 40°F or lower is one of the most effective ways to reduce risk of foodborne illness. Microorganisms grow more rapidly at warmer temperatures, and research shows that a constant refrigerator temperature of 40°F or lower helps slow the growth of microbes that can cause spoilage or foodborne illness.

Steps to Safer Fruits and Vegetables

CHECK:

- To make sure that the fresh fruits and vegetables you buy are not bruised or damaged
- Fresh cut fruits and vegetables like packaged salads and pre-cut melons are refrigerated at the store before buying. Do not buy fresh cut items that are not refrigerated.

SEPARATE:

Fresh fruits and vegetables in different sections of your shopping cart, grocery bags, and refrigerator from raw foods such as meat, poultry and seafood.

CLEAN:

- Your hands with warm water and soap for at least 20 seconds before and after handling fresh fruits.
- All surfaces and utensils with hot water and soap, including cutting boards, counter tops, peelers and knives that will touch fresh fruits or vegetables before and after food preparation
- Fresh fruits and vegetables under running tap water by rubbing or with a clean vegetable brush, including those with skins and rinds that are not eaten. Dry with a clean cloth or paper towel.
FYI: You do not need to wash packaged fruits and vegetables labeled “ready-to-eat,” “washed” or “triple washed.”
- Do not use soap or bleach to wash produce. These products are not intended for consumption.

COOK:

Or throw away fruits or vegetables that have touched raw meat, poultry, seafood or their juices.

CHILL:

Refrigerate all cut, peeled or cooked fresh fruits and vegetables within two hours.

Defrosting “DO’s”

- Defrost food in the refrigerator. This is the safest method for all foods.
- Short on time? Thaw meat and poultry in airtight packaging in cold water. Change the water every 30 minutes, so the food continues to thaw.
- Defrost food in the microwave only if it will be cooked immediately.
- You can thaw food as part of the cooking process, but make sure food reaches its safe internal temperature.

Defrosting “DON’Ts”

- Avoid keeping foods in the Danger Zone – the unsafe temperatures between 40°F and 140°F.
- Do not defrost food in hot water.
- Do not thaw food on the counter. Food that’s left out at room temperature longer than two hours is not within a safe temperature range and may not be safe to eat.

Source: fightbac.org

Food Safety and Raw Milk

“Back to nature” is what many Americans are trying to do with the minimally processed foods they buy and eat. People are shopping at farmers’ markets, picking organic foods at grocery stores, participating in food cooperatives (co-ops), and growing their own food.

However, milk and milk products made from raw milk (including certain types of cheese, ice cream and yogurt) can pose severe health risks. Milk and milk products need, at a minimum, a process called pasteurization. Pasteurization heats milk briefly (e.g., to 161°F for about 20 seconds), to kill disease-causing germs such as Salmonella, Escherichia coli 0157:H7, Campylobacter, etc., that are found in raw milk.

Source: cdc.gov

Raw milk is not allowed in the 4-H Special Foods Contest.

Watch What You Heat: Cooking Safety for All

- The best time to cook is when you are wide awake.
- Always wipe clean the stove, oven, exhaust fan to prevent grease buildup.
- Wear short or close-fitting sleeves when cooking.
- Keep a pan lid and dry potholders or oven mitts near you EVERY time you cook.
- Turn pot or pan handles toward the back of the stove.
- When heating food in the microwave, use microwave-safe cookware that allows steam to escape.
- Allow food to rest before removing from the microwave.
- When frying, use a pan lid or splash guard to prevent grease splatter.
- Stay in the kitchen while you are frying, grilling, or broiling food. If you leave, turn off the stove.
- If you are simmering, baking, roasting, or boiling food, check it regularly. Remain in the home while food is cooking, and use a timer to remind you to check on your cooking.
- After cooking, check the kitchen to make sure all burners and other appliances are turned off.

If your food does catch on fire:

1. Cover the pan with its lid. A cookie sheet works too. Leave covered until the pan is cool. NEVER move the pot or carry it outside - the pot is too hot to handle and the contents may splash, causing a severe burn.
2. Turn the heat off. With the lid on and the heat off, the fire should quickly put itself out. NEVER use water to put out a kitchen fire. Water will cause the oil to splatter and spread the fire, or scald you as it vaporizes.
3. If the fire is inside the oven or microwave, keep the door shut and turn it off. Keep closed until the oven is cool.
4. If the fire gets out of control- get out, stay out and call 9-1-1. Don't return inside for any reason.

Source: American Burn Association, ameriburn.org/

Resource Materials

Serving Size Guide Update: 2020 Dietary Guidelines for Americans

Fruits

What counts as a cup of fruit? One cup of fruit counts as a serving of fruit. In general, 1 cup of fruit or 100% fruit juice or ½ cup of dried fruit can be considered as 1 cup from the fruit group. The following specific amounts count as 1 cup of fruit (in some cases equivalents for ½ cup are also shown) towards your daily recommended intake.

FRUIT	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Apple	½ large (3¼" diameter)	
	1 small (2½" diameter)	
	1 cup, sliced or chopped, raw or cooked	½ cup, sliced or chopped, raw or cooked
Applesauce	1 cup	1 snack container (4 oz.)
Banana	1 cup, sliced	1 small (less than 6" long)
	1 large (8" to 9" long)	
Berries or Cherries	1 cup	½ cup
Cantaloupe	1 cup, diced or balls	1 medium wedge (⅓ of a medium melon)
Grapes	1 cup, whole or cut up	
	32 seedless grapes	16 seedless grapes
Grapefruit	1 medium (4" diameter)	½ medium (4" diameter)
	1 cup, pieces or sections	
Kiwi	1 cup, cut up pieces	½ cup, cut up pieces
	3 medium or 4 small	2 small
Lemon	2 large	1 large
	1 cup, pieces or sections	½ cup, pieces or sections
Limes	4 medium	2 medium
	1 cup, pieces (sections)	
Mixed fruit (fruit cocktail)	1 cup, diced, sliced, raw, canned, drained	1 snack container (4 oz.)
Orange	1 large (3-1/16" diameter)	1 small (2 ⅝" diameter)
	1 cup, pieces or sections	
Orange, mandarin	1 cup, canned, drained	
Peach	1 large (2½" diameter)	1 small (2" diameter)
	1 cup, sliced, diced, raw, cooked, canned, drained	1 snack container (4 oz.)
	2 halves, canned, drained	
Pear	1 medium (2½ per lb.)	1 snack container (4 oz.)
	1 cup, sliced, diced, raw, cooked, canned, drained	
Pineapple	1 cup, chunks, sliced, crushed, raw, cooked, canned drained	1 snack container (4 oz.)
Plum	3 medium or 2 large	1 large
	1 cup, sliced, raw or cooked	
Strawberries	Approximately 8 large	Approximately 4-large
	1 cup, whole, halved, sliced, fresh, frozen	½ cup, whole, halves, sliced, fresh, frozen
Watermelon	1 small wedge (1" thick)	
	1 cup, diced or balls	6 balls
Dried Fruit	½ cup dried fruit = 1 cup fresh fruit	¼ cup dried fruit = ½ cup fresh fruit
		1 small box (1½ oz.) raisins
100% Fruit Juice	1 cup	½ cup
100% Fruit Juice Concentrate (without added water)	2 tablespoons	1 tablespoon

Vegetables (includes dry beans and peas)

What counts as one serving (referred to as one cup)? In general, 1 cup of raw or cooked vegetables or vegetable juice or 2 cups of raw leafy greens can be considered as 1 cup from the vegetable group. The chart below lists specific amounts that count as 1 cup of vegetables (in some cases equivalents for ½ cup are also shown) towards your recommended intake.

DARK GREEN VEGETABLES	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Broccoli	1 cup, chopped or florets	
	3 spears 5" long raw or cooked	
Greens (collards, mustard, turnip, kale)	1 cup, cooked	
Spinach	1 cup, cooked (2 cups raw = 1 cup cooked)	½ cup, cooked (1 cup raw = ½ cup cooked)
Raw leafy greens (spinach, romaine, watercress, dark green leafy lettuce, endive, escarole)	2 cups, raw	1 cup, raw

ORANGE VEGETABLES	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Carrots	1 cup, strips, slices, chopped, raw or cooked	
	2 medium	1 medium
	1 cup baby-sized (approximately 12)	½ cup baby-sized (approximately 6)
Pumpkin	1 cup, cooked and mashed	
Sweet Potato	1 large, baked (2¼" or larger in diameter)	
	1 cup, cooked, sliced or mashed	
Winter Squash (Acorn, Butternut, Hubbard)	1 cup, cubed, cooked	½ Acorn, baked = ¾ cup

DRY BEANS & PEAS	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Black, garbanzo, kidney, pinto, soy beans, black-eyed peas or split peas	1 cup, cooked, whole or mashed	
Tofu	1 cup, ½-inch cubes (approximately 8 oz.)	

STARCHY VEGETABLES	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Corn (yellow or white)	1 cup	
	1 large ear (8" to 9" long)	1 small ear (approximately 6" long)
Green Peas	1 cup	
Potatoes	1 cup, diced or mashed	
	1 medium (2½" to 3" diameter), boiled or baked	
	20 medium to long strips (2½" to 4" long), French fried (contains discretionary calories)	

Vegetables (continued)

OTHER	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Avocado*	1 cup, 1 medium avocado	½ cup
Bean sprouts	1 cup, cooked	
Cabbage, green	1 cup, chopped or shredded, cooked	
Cauliflower	1 cup, pieces or florets, raw or cooked	
Celery	1 cup, diced or sliced, raw or cooked	
	2 large stalks (11" to 12" long)	1 large stalk (11" to 12" long)
Cucumbers	1 cup, raw, sliced or chopped	
Green or wax beans	1 cup, cooked	
Green or red peppers	1 cup, chopped, raw or cooked	
	1 large pepper (3" diameter and 3¾" long)	1 small
Lettuce (iceberg or head)	2 cups, shredded or chopped, raw	1 cup, shredded or chopped, raw
Mushrooms	1 cup, raw or cooked	
Onions	1 cup, chopped, raw or cooked	
Tomatoes	1 large whole (3" diameter), raw	1 small (2½" diameter), raw
	1 cup, chopped or sliced, raw, canned or cooked	1 medium canned
Summer squash or zucchini	1 cup, sliced or diced, cooked	

*Avocado serving size is 1/3 of a medium avocado (1.7 ounces). 1 ounce equals about 50 calories.

TOMATO PRODUCTS	AMOUNT THAT COUNTS AS 1 CUP	AMOUNT THAT COUNTS AS ½ CUP
Juice (mixed vegetable/tomatoes)	1 cup	½ cup
Salsa	1 cup (contains discretionary calories)	
Sauce (canned or homemade; includes spaghetti and pizza-flavored without meat)	1 cup	

Dairy

What counts as 1 cup? In general, 1 cup of milk or yogurt, 1½ ounces of natural cheese, or 2 ounces of processed cheese can be considered as 1 cup from the milk group. The chart below lists specific amounts that count as 1 cup in the milk group towards your daily recommended intake.

DAIRY ITEMS	AMOUNT THAT COUNTS AS 1 CUP	COMMON PORTIONS & CUP EQUIVALENTS
Milk (choose fat-free or low-fat milk most often)	1 cup milk or buttermilk	
	1 half-pint container	
	½ cup evaporated milk	
Yogurt (choose fat-free or low-fat yogurt most often)	1 regular container (8 fluid ounces)	1 small container (6 ounces) = ¾ cup
	1 cup	1 snack-sized container (4 ounces) = ½ cup
Cheese (choose low-fat cheese most often)	1½ ounces hard cheese (cheddar, mozzarella, Swiss, parmesan)	1 slice of hard cheese = ½ cup milk
	½ cup shredded cheese	
	2 ounces processed cheese (Velveeta, American, Swiss, Cheese Whiz)	1 slice processed cheese = ⅓ cup milk
	½ cup ricotta cheese	
Milk-based desserts (choose fat-free or low-fat types most often)	2 cups cottage cheese	½ cup cottage cheese = ¼ cup milk
	1 cup pudding made with milk	
	1 cup frozen yogurt	
	1½ cups ice cream	1 scoop ice cream = ⅓ cup milk

****Almond milk and coconut milk are not included in the Dairy group as their nutrition content is not similar to dairy milk.**

Grains

At least half of all the grains should be whole grains.

What counts as a serving? Servings are now expressed in ounce equivalents. In general, 1 slice of bread, 1 cup of ready-to-eat cereal, or ½ cup of cooked rice, cooked pasta, or cooked cereal can be considered as 1 ounce equivalent from the grains group. The chart lists specific amounts that count as 1 ounce equivalent of grains towards your daily recommended intake. In some cases the number of ounce equivalents for common portions are also shown.

GRAIN ITEMS	WG = WHOLE GRAIN RG = REFINED GRAIN	ONE OUNCE EQUIVALENT & OTHER COMMON PORTIONS
Bagels	WG: whole wheat	1 "mini" bagel = 1 ounce equivalent
	RG: plain, egg	1 large bagel = 4 ounce equivalents
Biscuits	RG: baking powder/buttermilk	1 small (2" diameter) = 1 ounce equivalent
		1 large (3" diameter) = 2 ounce equivalents
Bisquick®	RG: enriched flour	⅓ cup mix = 2 ounce equivalents
Breads	WG: 100% whole wheat	1 regular slice = 1 ounce equivalent
	RG: white, wheat, French, sourdough	4 snack-size slices rye = 1 ounce equivalent 1 small slice French = 1 ounce equivalent 2 regular slices = 2 ounce equivalents
Cornbread	RG	1 small piece (2½" x 1¼" x 1¼")
		1 medium piece (2½" x 2½" x 1¼") = 2 ounce equivalents
Corn Chips		32 regular sized chips = 1 ounce equivalent
Corn Meal		⅓ cup (2 tablespoons) = 1 ounce equivalent
Cornstarch		⅓ cup (2 tablespoons) = 1 ounce equivalent
Crackers	WG: 100% whole wheat, rye	5 whole wheat crackers = 1 ounce equivalent
	RG: saltines, snack crackers	2 rye crisp breads = 1 ounce equivalent 2 squares of graham = 1 ounce equivalent 20 oyster crackers = 1 ounce equivalent 3 triple Rye Crisp = 1 ounce equivalent 7 square or round crackers = 1 ounce equivalent
Croissant		1 medium = 1 ounce equivalent
Egg Rolls		2 egg roll wrappers = 1 ounce equivalent
English Muffins	WG: whole wheat & RG: plain, raisin	½ muffin = 1 ounce equivalents
		1 muffin = 2 ounce equivalents
Flour		⅓ cup (2 tablespoons) = 1 ounce equivalent
Muffins	WG: 1 small whole wheat	1 large (3½" diameter) = 3 ounce equivalents
	RG: 1 small bran, corn, plain	
Oatmeal, Grits or Other Hot Cereal	WG	½ cup cooked = 1 ounce equivalent
		1 packet instant = 1 ounce equivalent
		1 ounce (⅓ cup) dry (regular or quick) = 1 ounce equivalent
Pancakes	WG: whole wheat, buckwheat	One 4½" or two 3" diameter pancakes = 1 ounce equivalent
	RG: buttermilk, plain	3 pancakes (4½" diameter) = 3 ounce equivalents
Popcorn	WG	2-2/3 cups oil popped or 3½ cups air popped = 1 ounce equivalent 1 microwave bag, popped = 4 ounce equivalents
Ready-to-Eat Breakfast Cereal	WG: toasted oat, whole wheat flakes	1 cup flakes or rounds = 1 ounce equivalent
	RG: corn flakes, puffed rice	1¼ cup puffed = 1 ounce equivalent
Rice	WG: brown, wild	1 ounce dry or ½ cup cooked = 1 ounce equivalent
	RG ½ cup enriched, white, polished	½ cup dry or 1 cup cooked = 2 ounce equivalents
Pasta (spaghetti, macaroni, noodles)	WG: whole wheat	1 ounce dry or ½ cup cooked = 1 ounce equivalent
	RG: enriched, durum	2 ounce dry or 1 cup cooked = 1 ounce equivalents
		½ cup chow mien noodles = 2 ounce equivalents
Taco Shell		Hard shell, ready-to-eat, 6" diameter = 2 ounce equivalents
Tortillas	WG: whole wheat, whole grain corn	1 small, 6" diameter = 1 ounce equivalent
	RG: flour, corn	1 large, 12" diameter = 4 ounce equivalents

Protein

What counts as an ounce equivalent in the protein group? In general, 1 ounce of meat, poultry or fish, ¼ cup cooked dry beans, 1 egg, 1 tablespoon of peanut butter, or ½ ounce of nuts or seeds can be considered as a 1 ounce equivalent from the protein group. The chart below lists specific amounts that count as 1 ounce equivalent in the protein group towards your daily recommended intake.

PROTEIN ITEMS	AMOUNT THAT COUNTS AS 1 OUNCE	COMMON PORTIONS & OUNCE EQUIVALENTS
Meats	1 ounce cooked lean beef	1 small steak (eye of round, filet) = 3½ to 4 ounce equivalents
	1 ounce cooked lean pork or ham	1 small lean hamburger = 2 to 3 ounce equivalents
Poultry	1 ounce cooked chicken or turkey, without skin	1 small chicken breast half = 3 ounce equivalents
	1 sandwich slice of turkey (4½" x 2½" x 1/8")	½ Cornish game hen = 4 ounce equivalents
Fish	1 ounce cooked fish or shell fish	1 can tuna, drained = 3 to 4 ounce equivalents
		1 salmon steak = 4 to 6 ounce equivalents
		1 small trout = 3 ounce equivalents
Eggs	1 egg	
Nuts and Seeds	½ ounce nuts (12 almonds, 24 pistachios, 7 walnut halves)	1 ounce of nuts or seeds = 2 ounce equivalents
	½ ounce of seeds (pumpkin, sunflower or squash, hulled, roasted)	
	1 tablespoon peanut butter or almond butter	
Dried beans & peas	¼ cup of cooked dry beans (black, kidney, pinto or white)	1 cup bean soup = 2 ounce equivalents
	¼ cup cooked dry peas (chickpeas, cowpeas, lentils, split)	1 cup split pea or lentil soup = 2 ounce equivalents
	¼ cup baked beans or refried beans	
Soy	1 ounce soy milk beverage, calcium-enriched, fortified	
	1 ounce soy yogurt, calcium fortified	
	¼ cup (about 2 ounces) of tofu	1 soy or bean burger patty = 2 ounce equivalents
	1 ounce tempeh, cooked	
	¼ cup roasted soy beans	
	1 falafel patty (2¼" or 4 ounces)	
	2 tablespoons hummus	

- Bacon can be used for flavor and garnish; however it is not a suitable main ingredient for your recipe as it is high in saturated fat.
- Chicken or beef broth is commonly used in soups and cooking. It has a pinch of protein in it and is not considered a high protein food and not a main source of protein.

What is Trans Fat?

Solid fats contain more saturated fat and/or trans fat than oil. Trans fat is found in many cakes, cookies, crackers, icings, margarines, and microwave popcorns. Foods containing partially hydrogenated vegetable oil usually contain trans fat. Saturated fat, trans fat, and cholesterol tends to raise "bad" (LDL) cholesterol levels in the blood, which in turn increases the risk for heart disease. To lower risk for heart disease, cut back on foods containing saturated fat, trans fat, and cholesterol.

To see the full Dietary Guidelines report, visit: [dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials](https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials)

Kitchen Staples (Weight & Volume)

CEREALS	UNIT MARKET	VOLUME APPROXIMATE
Cornmeal, yellow	1 lb.	3 cups
Cooked		16 $\frac{2}{3}$ cups
Oats, rolled	1 lb.	6 $\frac{1}{4}$ cups
Cooked		8 cups
Rice, white		
Long grain	1 lb.	2 $\frac{1}{4}$ cups
Medium grain	1 lb.	2 $\frac{1}{3}$ cups
Short grain	1 lb.	2 $\frac{1}{4}$ cups
Cooked		8 cups

COCONUT	UNIT MARKET	VOLUME APPROXIMATE
Long thread	1 lb.	5 $\frac{2}{3}$ cups

CRACKERS	UNIT MARKET	VOLUME APPROXIMATE
Graham crackers, crumbs	1 lb.	4 $\frac{1}{3}$ cups
Soda crackers, crumbs, fine	1 lb.	4 cups

FLOURS	UNIT MARKET	VOLUME APPROXIMATE
Wheat		
All purpose		
Sifted	2 lb.	8 cups
Not sifted	2 lb.	7 cups
Instant	2 lbs.	7 $\frac{1}{4}$ cups
Bread, sifted	2 lbs.	8 cups
Self-rising, sifted	2 lbs.	8 cups
Whole Wheat	2 lbs.	6 $\frac{2}{3}$ cups

FAT	UNIT MARKET	VOLUME APPROXIMATE
Hydrogenated	1 lb.	2 $\frac{1}{3}$ cups

LEAVENING AGENTS	UNIT MARKET	VOLUME APPROXIMATE
Baking powder		
Phosphate	1 oz.	2 tablespoons
SAS phosphate	1 oz.	2 tablespoons
Tartrate	1 oz.	2 tablespoons
Baking Soda	1 oz.	2 tablespoons
Cream of Tarter	1 oz.	4 tablespoons

PASTA	UNIT MARKET	VOLUME APPROXIMATE
Macaroni, 1-inch pieces	1 lb.	3 $\frac{3}{4}$ cups
Cooked		9 cups
Macaroni, shell	1 lb.	4 to 5 cups
Cooked		9 cups

SALT	UNIT MARKET	VOLUME APPROXIMATE
Table	1 lb.	1 $\frac{1}{2}$ cups

STARCH	UNIT MARKET	VOLUME APPROXIMATE
Corn starch	1 lb.	3 $\frac{1}{2}$ cups

SUGAR	UNIT MARKET	VOLUME APPROXIMATE
Brown	1 lb.	2 $\frac{1}{4}$ cups
Cane or beet, granulated	5 lbs.	11 $\frac{1}{4}$ cups
Confectioners		
Not sifted	1 lb.	3 to 4 cups
Sifted	1 lb.	4 $\frac{1}{2}$ cups
Honey	1 lb.	1 $\frac{1}{3}$ cup

Food Groups – Daily Recommendations

Use your customized MyPlate Daily Checklist to determine your daily recommendations.

Grains Needed Daily

GENDER CATEGORY	AGE	DAILY RECOMMENDATION*	DAILY MINIMUM AMOUNT OF WHOLE GRAINS
Female Youth	9-13 years	5 ounce equivalents	3 ounce equivalents
	14-18 years	6 ounce equivalents	
Male Youth	9-13 years	6 ounce equivalents	3 ounce equivalents
	14-18 years	7 ounce equivalents	3½ ounce equivalent

Vegetables Needed Daily

GENDER CATEGORY	AGE	DAILY RECOMMENDATION*
Female & Male Children	4-8 years	1½ cups
Female Youth	9-13 years	2 cups
	14-18 years	2½ cups
Male Youth	9-13 years	2½ cups
	14-18 years	3 cups

Fruit Needed Daily

GENDER CATEGORY	AGE	DAILY RECOMMENDATION*
Female & Male Children	2-3 years	1 cup
	4-8 years	1 to 1½ cups
Female Youth	9-13 years	1½ cups
	14-18 years	
Male Youth	9-13 years	1½ cups
	14-18 years	2 cups
Female Adult	19-30 years	2 cups
	31-50 year	
	51+ years	
Male Adult	19-30 years	2 cups
	31-50 years	
	51+ years	

Dairy Needed Daily

GENDER CATEGORY	AGE	DAILY RECOMMENDATION*
Female & Male Children	2-3 years	2 cups
	4-8 years	
Female Youth	9-13 years	3 cups
	14-18 years	
Male Youth	9-13 years	3 cups
	14-18 years	
Female Adult	19-30 years	3 cups
	31-50 year	
	51+ years	
Male Adult	19-30 years	3 cups
	31-50 years	
	51+ years	

Protein Foods Needed Daily

GENDER CATEGORY	AGE	DAILY RECOMMENDATION*
Female & Male Children	2-3 years	2 ounce equivalents
	4-8 years	3 – 4 ounce equivalents
Female Youth	9-13 years	5 ounce equivalents
	14-18 years	
Male Youth	9-13 years	5 ounce equivalents
	14-18 years	6 ounce equivalents
Female Adult	19-30 years	5½ ounce equivalents
	31-50 year	5 ounce equivalents
	51+ years	
Male Adult	19-30 years	6½ equivalents
	31-50 years	6 ounce equivalents
	51+ years	5½ ounce equivalents

Learning the Language

When you read a recipe, you may run into words you don't understand. Use this list to look up puzzling words.

COOKING TERM	DEFINITION
Bake	Cook food in the oven.
Beat	Make a mixture smooth by stirring fast with a fork, wire whisk, eggbeater or electric mixer.
Boil	Cook a liquid in a saucepan on top of the stove until big bubbles keep rising and breaking on the surface.
Brown	Cook food until it looks brown on the outside.
Chill	Put food in the refrigerator until it is cold.
Chop or Cut	Cut food into small pieces on a cutting board, using a sharp knife. Don't worry if the pieces aren't the same shape; however, the pieces should be about the same size.
Coat	To cover the surfaces of food with another substance (e.g., flour, sauce).
Cool	Put food on the counter (usually on a wire cooling rack) until it is no longer warm when you touch it. This is especially important if you are frosting or decorating a cake or a batch of cookies. If you don't wait until the cake or cookies are completely cool, the frosting may start to melt.
Cover	Put a lid, aluminum foil or plastic wrap over food. When you cook food on the stove, use a lid. When you put food in the oven, use aluminum foil. When you put food on the counter, in the refrigerator or in the freezer, use plastic wrap or aluminum foil.
Cube	To cut food into ½-inch to 1-inch squares.
Dice	To cut food into ¼-inch squares.
Dip	To briefly plunge bite-sized foods into a liquid mixture.
Drain	Pour off liquid or let it run off through the holes in a strainer or colander. You do this to drain the water after you cook pasta or to drain the fat after you cook ground beef.
Dredge	To sprinkle or coat food lightly with flour, corn meal or ground almonds.
Dust	To sprinkle a fine substance (e.g., flour or sugar) on the surface of food.
Freeze	Put food in the freezer until it is frozen and hard as a rock.
Grate	Rub an ingredient against the smallest holes on a grater to cut it into very small pieces.
Grease	Spread the bottom and sides of a pan with shortening, margarine or butter, using a pastry brush or paper towel. You can also use cooking spray, which comes in a can. By greasing a pan, you will keep food from sticking.
Grind	To reduce dry foods to particles by cutting or crushing.
Hull	To remove the outer covering from fruits, nuts or seeds.
Julienne	To cut meat or vegetables into thin stick-shaped pieces (1/8 x 1/8 x 1½ – 2 inches)
Knead	Curve your fingers around and fold dough toward you, then put it away with the heels of your hands, using a quick rocking motion. Kneading makes dough smooth and stretchy.
Mash	To crush, beat or squeeze food into a soft state using a fork, masher or electric blender/mixer.
Melt	Put a solid ingredient, such as chocolate or butter, in a sauce pan and turn it into a liquid by heating it on the stove. You also can put the ingredient in a microwavable bowl and heat it in the microwave oven until melted.
Mince	To cut food into very fine pieces using a knife, food grinder, blender or food processor.
Mix	Stir ingredients with a spoon, fork, eggbeater, wire whisk or electric mixer until smooth or almost smooth.
Pare or Peel	Cut off the outer skin of fruits or vegetables, using a vegetable peeler or a small sharp knife. Some fruit, such as oranges and bananas, you can peel with your fingers.
Puree	To force cooked food through a sieve or using an electric blender to make a fine pulp.
Roll	Press a ball of dough into a flat rectangle or circle, using a rolling pin.
Score	To make shallow or deep decorative cuts in food with point of a knife.
Sift	To shake through a fine sieve.
Shred	To cut into very fine strips or pieces by rubbing an ingredient against the big holes on a grater or pulling apart with two forks (i.e., shredding meat).
Slice	Starting at one end (usually across the grain), cut food into flat skinny pieces on a cutting board, using a sharp knife. The pieces should all be about the same thickness.
Snip	To cut food (e.g., herbs) into small uniform lengths using a kitchen scissors.
Strain	To separate liquids from solid food by passing through a sieve or cheesecloth.
Strips	Food that is cut into long narrow pieces.
Stir-fry	Cook food quickly in a small amount of oil over high heat, stirring all the time.
Toss	Mix ingredients by lifting them with two spoons or forks and letting them drop back into the bowl. You do this when you make a "tossed salad."
Wedge	Cutting round or oval food into chunks by cutting in half and then in half again (apple, lemon, etc.)

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