



STEMsational Ag: The Virtual Farm

MIDDLE TENNESSEE STATE UNIVERSITY



Module 5: Fast Food at Home UNIT 5: COOKING ON A BUDGET Grades 6 – 8



USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

MIDDLE TENNESSEE
STATE UNIVERSITY.
CENTER FOR HEALTH AND HUMAN SERVICES

MIDDLE TENNESSEE
STATE UNIVERSITY.
SCHOOL OF AGRICULTURE

MIDDLE TENNESSEE
STATE UNIVERSITY.

I AM *true*
BLUE
MIDDLE TENNESSEE STATE UNIVERSITY

MT
Fermentation Science

This work is supported by the Agriculture and Food Research Initiative, Education and Workforce Development Program. [grant no. 2021-67037-33380/project accession no. 1024880], from the U.S. Department of Agriculture, National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and should not be construed to represent any official USDA or U.S. Government determination or policy.

0522-0725 / Middle Tennessee State University does not discriminate against students, employees, or applicants for admission or employment on the basis of race, color, religion, creed, national origin, sex, sexual orientation, gender identity/expression, disability, age, status as a protected veteran, genetic information, or any other legally protected class with respect to all employment, programs, and activities sponsored by MTSU. The Assistant to the President for Institutional Equity and Compliance has been designated to handle inquiries regarding the non-discrimination policies and can be reached at Cope Administration Building 116, 1301 East Main Street, Murfreesboro, TN 37132; Christy.Sigler@mtsu.edu; or 615-898-2185. The MTSU policy on non-discrimination can be found at mtsu.edu/iec.

Materials are intended for educational purposes only. Content Contributors and the STEMsational Ag team have reviewed to ensure all content is cited. Please contact STEMsationalAg@mtsu.edu with any concerns.



Module 5: Fast Food at Home
UNIT 5: COOKING ON A BUDGET
Grades 6 – 8



6th – 8th Grade:

Introduction to the Unit:

In this unit, learn strategies to save by planning your meals and market lists ahead of shopping trips. You'll also find out how to extend the possibilities for leftovers and methods to bulk up a recipe beyond fresh meat using less costly, still nutritious canned goods.

Pre-assessment - Discuss these questions with your classmates and a teacher or an adult at home:

- 1) How much do you think it costs to feed a typical family of four (two adults and two children) each week? Each month?
- 2) On the following page, reference the official USDA Thrifty Food Plan from February 2022 with cost estimates. How close were you to the official numbers?
- 3) What do you think can make food costs higher or lower?



**Official USDA Thrifty Food Plan:
 U.S. Average, February 2022¹**

Age-sex group	Weekly cost ²	Monthly cost ²
Individuals³		
Child:		
1 year	\$23.00	\$99.50
2-3 years	\$34.90	\$151.30
4-5 years	\$37.80	\$163.80
6-8 years	\$42.10	\$182.40
9-11 years	\$48.60	\$210.40
Male:		
12-13 years	\$51.90	\$224.80
14-19 years	\$65.10	\$282.20
20-50 years	\$63.40	\$274.60
51-70 years	\$55.80	\$241.90
71+ years	\$53.50	\$231.90
Female:		
12-13 years	\$45.20	\$195.80
14-19 years	\$51.80	\$224.40
20-50 years	\$50.90	\$220.40
51-70 years	\$47.40	\$205.20
71+ years	\$52.10	\$225.80
Reference Family:⁴		
Male and Female, 20-50 years and Two Children, 6-8 and 9-11 years	\$204.90	\$887.80

¹ The Thrifty Food Plan, 2021 represents a nutritious, practical, cost-effective diet. The nutritional bases of the Thrifty Food Plan are the Dietary Reference Intakes and the *Dietary Guidelines for Americans, 2020-2025* (including Healthy U.S.-Style Dietary Pattern food-group and -subgroup amounts). Another basis of the Thrifty Food Plan is that all meals and snacks are prepared at home. For specific foods and quantities of foods in the Thrifty Food Plan, see [Thrifty Food Plan, 2021](#). The Thrifty Food Plan is based on 2013-16 consumption and 2015-16 price data and updated to current dollars by using the Consumer Price Index for specific food items.

² All costs are rounded to nearest 10 cents. Monthly costs are calculated by multiplying the weekly costs by 4.333.

³ The costs given are for individuals in 4-person households. For individuals in other size households, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 4-person—no adjustment; 5- or 6-person—subtract 5 percent; 7- (or more) person—subtract 10 percent. To calculate total foods costs for a household, (1) sum the food costs for each individual in the household and then (2) apply the appropriate adjustment factor based on household size.

⁴ Defined in the Food and Nutrition Act of 2008, this reference family of four is used to determine the maximum Supplemental Nutrition Assistance Program (SNAP) allotment, which is then adjusted downward for smaller households and upward for larger households.

Note: To account for changes in food prices, the costs of the Thrifty Food Plan, 2021 Market Baskets for each age-sex group are updated monthly by using the Consumer Price Indexes (CPIs). Each Market Basket Category of the Thrifty Food Plan, 2021 is matched to one or more CPIs (e.g., the Market Basket Category “eggs” is matched to the CPI for eggs and the Market Basket Category “dark-green vegetables” is matched to CPIs for fresh vegetables, frozen vegetables, and canned vegetables). The costs of Market Basket Categories matched to one CPI are adjusted based on the percentage change in the matched CPI compared to June 2021. The costs of Market Basket Categories matched to more than one CPI are adjusted based on a weighted average of the percentage changes in the matched CPIs compared to June 2021, with weights based on expenditure patterns as outlined in BLS’ relative importance of CPI components for 2017-18 (the most current at the time of the 2021 update). After the CPI adjustments are applied to each Market Basket Category, the updated costs of the Market Basket Categories are summed to determine the new monthly total cost of the Thrifty Food Plan, 2021 Market Basket for each age-sex group.

This file may be accessed at: <https://www.fns.usda.gov/cnpp/usda-food-plans-cost-food-reports-monthly-reports>.
 Issued March 2022.



Purpose:

In this unit, you will gain insight into how meal planning can conserve funds. Learn ways to shop your home inventory to save on the grocery bill, as well. Use technology to help you maximize ingredients already in stock at home. You will also learn how to prepare a nutritionally focused meal plan and how to compare poultry labels in the marketplace. The lesson concludes by discovering how you can double a popular main dish protein at half the cost.

Student Learning Outcomes for the Unit:

- ▶ Student will use USDA current standards to estimate reasonable budgets for weekly meals.
- ▶ Student will read about the benefits of meal planning and summarize how this adds up to savings.
- ▶ Student will use a nutritionally-sound meal planning template to generate ideas for their own family.
- ▶ Student will use an application to find a recipe that makes the most of ingredients they already have.
- ▶ Student will learn what different poultry labels mean when grocery shopping.
- ▶ Student will discover a technique to double a pound of meat and cut costs in half for a main protein.

National Agricultural Literacy Outcomes

Agriculture and the Environment Outcomes, Theme 1

T1.6-8

- E. Discuss the comparative environmental pros and cons of populations relying on their local and regional resources versus tapping into a global marketplace
- G. Recognize how climate and natural resources determine the types of crops and livestock that can be grown and raised for consumption

Plants and Animals for Food, Fiber & Energy, Theme 2

T2.6-8

- E. Identify strategies for housing for animal welfare and the safety of animal products (e.g., meat, milk, eggs)
- F. Identify where labeling indicates the origin of food and fiber (fabric or clothing)



Food, Health & Lifestyle, Theme 3

T3.6-8

- A. Demonstrate safe methods for food handling, preparation, and storage in the home
- C. Evaluate serving size related to nutritional needs
- G. Identify agricultural products (foods) that provide valuable nutrients for a balanced diet
- H. Identify forms and sources of food contamination relative to personal health and safety

Vocabulary Words:

- ▶ **Meal Planning:** planning meals out in advance based on what a family enjoys, what is in season, what is on sale, and what is already in stock at home to lessen trips to the grocery store or unneeded purchases
- ▶ **Nutritious:** when a food or meal contains levels of elements that benefit the body, such as protein, complex carbohydrates, healthy fats, vitamins, and minerals
- ▶ **Inventory:** a list of contents used to make sure it remains complete
- ▶ **Halal:** the quality of meat preparation aligned with Muslim or Islamic tradition that makes it permissible for consumption
- ▶ **Antibiotic:** a bacteria-fighting medicine
- ▶ **Humane:** a compassionate way of treating others, including animals
- ▶ **Sauté:** a method that uses medium-high heat and a small amount of oil and/or butter-based fat in a pan to lightly brown and crisp food

Materials Needed:

- ▶ Writing utensil

Activity 1: Family Meal Movie Reel (or Comic Strip) Activity

On the following pages, read about the why and how of making a family meal plan. This article provides eight main steps to take to create your own meal.



<https://hgic.clemson.edu/>

PLANNING MEALS FOR A FAMILY

Factsheet | HGIC 4200 | Revised: Apr 20, 2020

Eating Meals at Home Has Benefits

Many of today's children and adults are part of a generation that has grown up in restaurants and fast-food eateries. Preparing and eating meals at home is a better choice for many reasons.

- It is usually healthier and tastes better because the cook has control over the ingredients in meals cooked at home.
- It helps to control the amounts of food served, or the portion sizes.
- It allows for more family time. Teens and children can learn to prepare and serve meals.
- It is generally cheaper than eating out.

Meal Planning Saves Time, Money & Stress

Taking the time to plan basic simple meals for the week saves time, money, and stress. In fact, preparing a simple meal at home takes about the same amount of time as driving to a fast-food restaurant or ordering a pizza.

Learning how to plan menus may save more money on your food budget than any other skill, allowing you to buy other necessities with the money saved. Here are some benefits of having a menu plan.

- It saves trips to the grocery store.
- You only buy what you need.
- It relieves the stress of wondering what to cook for dinner at the last minute.
- No time and energy are wasted frantically searching through the pantry for a certain food.
- It provides a better variety of meal choices, and the same foods aren't served too often.
- There is no waiting while something thaws.
- Leftovers are used up before they spoil.



Preparing and eating meals at home is a better choice for many reasons.
Faith Isreal, ©2021, Clemson Extension



Steps to Meal Planning

Making a meal plan is easier than most people think. Although it takes a little time upfront, it can save time in the long run. Once you get used to it, making a weekly meal plan will seem easy. All it takes is a few easy steps.

- Make a food budget and determine how often you will shop, preferably no more than once a week.
- Note your family’s schedule, which meals and snacks will be prepared at home or eaten away from home, and how many people will be eating each meal. This allows you to buy the right amount of food.
- Write a list of the foods your family likes to eat and keep it taped inside the kitchen cabinet. When you try a new recipe that everyone likes, add it to the list.
- Make enough menus for about a two-week cycle. Plan for breakfast, lunch, dinner, snacks, or five to six “mini-meals” per day. Next to each meal, write the ingredients that you need to prepare it.
- Inventory the foods you have on hand and what you need to buy. Know what foods are in the refrigerator and freezer, cupboards, cabinets, and pantry. Plan to use these foods in your menus to save money at the store.
- Keep a grocery list in the kitchen where you can see it. As you run out of staple food items during the week, add them to the list.
- Check grocery store ads for sale items that you can use in your menus.
- Write a weekly meal plan. Start with a simple plan that includes your family’s main meal of the day. When you feel comfortable with that, add in one meal at a time until you work up to a weekly plan. It should include all daily meals plus snacks, even those eaten away from home.

A Simple Meal Plan: Here is an example of a simple meal plan or menu writing system to help you get started.

Sunday: Lunch at Grandmother’s House

Monday: Meatless Monday

Tuesday: Dinner in a Crock-Pot

Wednesday: Soup & Sandwich

Thursday: Pasta Night

Friday: From the Grill

Saturday: Leftovers

The main dish, which is the base around which the rest of the menu is planned, should provide a serving of protein (e.g., lean meat, some beans, or a low-fat dairy product). Choose side dishes that go well with the main dish and contain plenty of raw and cooked vegetables, fruits, and whole grains (e.g., bread, pasta, rice, or cereal). Serve milk and another hot or cold beverage. A dessert, such as fresh fruit, yogurt, or pudding, is optional.

Include at least one “planned-over” meal per week to use leftover food from another meal.

Recipes: When you serve your family members’ favorite foods, you make meals more enjoyable and avoid waste. Most cooks rely on a core of about 10 favorite recipes for family meals. These should be nutritious, tasty, easy to make, and quick to prepare and cook.



Collect several low-cost, nutritious recipes for main dishes to put in your rotation, and serve them often. Include a variety of lean beef, poultry, and fish and at least one meatless dish. Find recipes for fruits and vegetables that the family likes, even the child who is a picky eater. Assemble the recipes in a recipe file or box, or put them in a loose-leaf notebook.

Other Meal Planning Tips

- Arrange your kitchen for easy use. Group equipment and utensils near the area where they are most often used.
- Invest in some appliances (e.g., microwave oven, toaster oven, pressure saucepan, and food processor) that may reduce preparation time or cook foods in less time.
- Try to time foods to finish cooking just at mealtime. Before starting a meal, think about the work to be done and the cooking time for each dish. Usually, it is best to start with the food with the longest cooking time, and then prepare the others while it cooks. However, if all the foods cook in the same amount of time, then start with the one that will hold up best.
- Save clean up time by using cookware in which the foods can be cooked, served, and stored.
- Make meal plans flexible so they can be switched around as needed, such as when you run out of an item, or food is on sale.
- Involve family members as much as possible, because fixing meals can be fun for everyone. Allow your children to help plan and prepare one meal a week. They are more likely to try new foods if they help select and prepare them.
- Post your meal plan on the refrigerator, along with a schedule of family members' activities that may interfere with meal preparation.
- Plan meals that include a variety of foods so that your family is more likely to obtain all the nutrients needed each day.
- Serve a balance of family favorites and new recipes.
- Vary your cooking methods (e.g., grill, bake, broil, and stir fry).
- Try not to serve the same food twice in the same day.
- Consider cooking with a friend and trading meals.

MyPlate: Your Guide to Food Choices

Healthy foods provide more value for your money. Develop healthy meals and snacks for you and your family, according to MyPlate, USDA's latest food guide pyramid. It shows that foods from all groups are needed daily for good health.

MyPlate is a healthy eating plan that:

- serves as a guideline for what and how much to eat for the entire day or for several days.
- emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products. Many fruits and vegetables are packed with nutrients yet have few calories.
- includes lean meats, poultry, fish, beans (legumes), eggs, and nuts.
- is low in saturated and trans fats, cholesterol, salt (sodium) and added sugars.
- balances calorie intake with calorie needs.



Food Groups & Numbers of Servings: Menus for meals and snacks should provide the required number of servings from these MyPlate food groups:

- protein (2 ounces per day)
- vegetables (3-5 cups per day)
- fruits (2-4 cups per day)
- enriched or whole grains (6-11 ounces per day)
- dairy (2-3 cups per day)

The amount of food you need to eat from each group depends on your age, sex, and level of physical activity. To learn more about MyPlate, refer to **HGIC 4010, MyPlate**, and www.choosemyplate.gov.

The New American Plate: To be well balanced, two-thirds or more of your plate should contain a variety of plant-based foods (e.g., grain products, beans, fruits, and vegetables). The remaining one-third or less should contain protein, including foods from animal sources (e.g., meats, meat alternates, and dairy foods).

Mini-Meals: Your family's on-the-go lifestyle may mean that you "graze" on several mini-meals daily instead of three meals and two snacks. Eating five or six mini-meals can be as healthful as three meals a day. This is the customary eating style in many places outside the United States.

Add Variety to Every Meal

It has been said that "we eat with our eyes." Create visual appeal and prevent boredom in your meals by including a variety of foods from every food group. This is also the best way to get all the nutrients your body needs daily. Choose foods of contrasting colors, textures, flavors, sizes, and shapes.

Whether you spend all day or only 15 minutes preparing a meal, its presentation makes it a success. Follow these guidelines to give your meals more plate appeal.

Color: For visual appeal, try to use two colorful foods in every meal. A meal of turkey, green beans, whole-wheat bread, orange slices, and milk looks better on the plate than monotone turkey, rice, cauliflower, white bread, pears, and milk.

Generally, color is a clue that fruits and vegetables are good antioxidant sources. Eat the most colorful fruits and vegetables to increase the nutritional value of your diet and to make meals more visually appealing. Choose red, orange, deep-yellow, purple, and some dark-green leafy vegetables every day. Color groups of foods may help the body in the following ways.

Blue/purple: lower risk of some cancers; urinary tract health; memory function, and healthy aging.

Green: lower the risk of some cancers, vision health, and strong bones and teeth.

Yellow/orange: lower risk of some cancers; a healthy heart; vision health, and a healthy immune system.

Red: lower risk of some cancers; a healthy heart; memory health, and urinary tract health.

Texture: To add interest to the meal, include foods that are crisp, soft, crunchy, chewy, and smooth. For example, a crunchy green salad compliments a plate of spaghetti and meatballs.

Flavor: This can range from sweet to sour, bland to spicy or savory. Combine a bland flavor with a zesty one. Bring out the taste of food with spices, herbs, and other flavorings. However, limit the number of mixed dishes served at one meal. Serve sliced tomatoes instead of a tossed salad with a main dish casserole.



Sizes & Shapes: To make meals more attractive, use a mixture of sizes and shapes, such as big, small, round, and square. To accomplish this, serve foods whole, sliced, cubed, shredded, or mashed.

Temperature: Choose from cold, warm, cool, and frozen. Provide a contrast in temperatures. Serve hot foods with cold food (e.g., baked chicken with chilled fruit salad).

Aroma: Prepare foods that smell good. Appetites are stimulated by smelling spices such as cinnamon, onions sautéing, and bread baking.

Balance: Serve some light dishes and some hearty ones. If the main dish is a hearty stew, accompany it with fruit, such as strawberries or pears.

Arrangement: Food should look good, delicious, and appealing on the plate. A pleasant table setting enhances the appearance of food.

Choice: Select foods you know your family will eat and are within your budget. Use fruits and vegetables that are in season or on sale. Serve different forms of foods: fresh; canned; frozen and dried. Don't be afraid to try new foods.

Portions: Serve portions that follow the recommendations in MyPyramid, USDA's latest food guide pyramid.

Keep It Simple

Foods that are fast and easy to prepare can be nutritious, also. By taking short cuts, you can save time and energy and still serve your family healthy food. Here are a few ideas to get you started.

Stock up on Quick-to-Fix Foods: Think convenience. "Speed-scratch" meals are easy to prepare if your pantry, refrigerator, and freezer are stocked with quick-to-fix foods. When your schedule is hectic, you can make a meal in minutes with some pasta, a jar of spaghetti sauce, canned green beans, fruit, and bread toasted with butter and garlic powder.

For a basic list of versatile staple foods to stock in your pantry, refrigerator, and freezer, refer to [HGIC 4225, *Stocking the Home Pantry for Quick Meals*](#).

Prepare Your Own Ingredients Ahead of Time: Cut up vegetables, fruits, and meats, because precut foods are generally more expensive. Cook lean ground meat and refrigerate or freeze it to make tacos, spaghetti sauce, etc.

Use Quick Cooking Methods: Select recipes with few ingredients and that use quick-cooking methods (e.g., broiling, microwaving, or stir-frying).

Do "Batch Cooking": Cook when you have extra time, such as on weekends. Make soups, stews, or casseroles to freeze for the next week.

Cook One-Dish Meals: A variety of items from different food groups can be combined into one dish (e.g., chicken stir fry with noodles, ham, and spinach quiche, or chicken/broccoli/cheese casserole).

Use "Planned Overs": Cook extra food as "planned-overs" for later use. Using leftovers saves time and stretches your food budget. Besides, leftover food often tastes just as good, or better, the second time around!

[HGIC 4240, *Quick Meals*](#) has more ideas on making meals in minutes.



Stretch Food Dollars

To learn more about saving money on food, refer to **HGIC 4220, *Stretch Your Food Dollars Part 1: Before Going to the Store***; **HGIC 4221, *Stretch Your Food Dollars Part 2: At the Grocery Store***, and **HGIC 4222, *Stretch Your Food Dollars Part 3: At Home***.

Sources:

1. Food Stamp Nutrition Education Program and Lifelong Improvement in Nutrition and Community (LINC). *Meal Planning and Shopping*.
2. Johnson, Melinda. American Dietetic Association. *Expand Your Recipe File*. March 20, 2007.
3. USDA Food and Nutrition Service. Eat Smart. Play Hard. Healthy Lifestyle. *Make It Quick and Easy*.
4. Wentworth, Glenda. Colorado State University Extension, Eagle County. *Meal Planning Helps Families Save Money*. April 2009.
5. University of Maryland. *Eat Smart, Be Fit Maryland: Planning Meals*. 2004.
6. Bastin, Sandra, Brandl, Sarah Ball and Walters, Jackie R. University of Kentucky Cooperative Extension Service. *A Guide to Planning Meals: Meeting the Family's Needs*. NEP-208. 2007.
7. *Better Meals With Better Planning: Plan Menus*. eXtension News. 2009.
8. *Spend Smart. Eat Smart*. Iowa State University Extension. www.extension.iastate.edu/foodsavings. 2009.
9. University of Illinois Extension, Food Stamp Nutrition Education/Expanded Food and Nutrition Education Program. *Meal Planning*.
10. Struempfer, Barbara. Alabama Cooperative Extension System. *Quick Meals for the Family*. HE-0053. July 2006.
11. American Institute for Cancer Research. *The New American Plate: Meals for a Healthy Weight and a Healthy Life*. November 2007.

Originally published 07/09

If this document didn't answer your questions, please contact HGIC at hgic@clemson.edu or 1-888-656-9988.

Original Author(s)

Janis G. Hunter, Retired HGIC Nutrition Specialist, Clemson University

Katherine L. Cason, PhD, Former Professor, State Program Leader for Food Safety and Nutrition, Clemson University.

Revisions by:

Faith C Isreal, Extension Agent Assistant, Richland County Extension

Clemson University Cooperative Extension Service offers its programs to people of all ages, regardless of race, color, gender, religion, national origin, disability, political beliefs, sexual orientation, gender identity, marital or family status and is an equal opportunity employer.

Copyright © 2022 Clemson University
Clemson Cooperative Extension | 103 Barre Hall Clemson, SC 29634
864-986-4310 | 1-888-656-9988 (SC residents only) | HGIC@clemson.edu



Activity Directions

- Read through the bullet points under the “Steps to Meal Planning” subheading in the article.
- Then, draw the steps like a set of movie clips pieced together, or inject some humor by sketching them in a comic strip format instead.
- You might need to make minor adjustments to suit your family’s needs or styles, and that is okay.
- Do this with someone else in your home or another student in the classroom to see the differences in how one family member might approach meal planning versus another.

Activity 2: Make a Grocery Game Plan

There are many tools available online to help you begin learning how to make a meal plan and grocery list. It is a good idea to begin with the ones in this activity from the USDA MyPlate website (myplate.gov) to ensure your plan includes plenty of the nutritious foods your family needs.

- Begin the activity using, “Create a Grocery Game Plan: Weekly Calendar” (next page) to plan dinner for the entire week. Fill in each day of the week a different meal.
- Then, use what you put in that document to guide you as you complete, “Create a Grocery Game Plan: Grocery List”. Fill in each category with the foods you need to make the meals you choose in the weekly calendar.
- After you complete the weekly calendar and the grocery list, answer the below questions to see if you might want to change anything:
 - 1) Are there any meals that you should swap with a family favorite to reduce waste?
 - 2) Do any of the main meals center around a meatless or less meat theme?
 - 3) Do the meals offer a balanced MyPlate plate of grains, fruits, vegetables, dairy, and protein?
 - 4) Which meals may have a high price due to a high number of ingredients or out-of-season items? Should you simplify this dish or swap it with a different one?
 - 5) Look at the grocery list. Is the produce in a variety of colors?



CREATE A GROCERY GAME PLAN

WEEKLY CALENDAR

	SUN	MON	TUE	WED	THU	FRI	SAT
BREAKFAST							
LUNCH							
DINNER							
SNACKS							

NOTES:



CREATE A GROCERY GAME PLAN GROCERY LIST

FRUITS

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

GRAINS (BREADS, PASTAS, RICE, CEREALS)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

DAIRY (MILK, YOGURT, CHEESE)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

VEGETABLES

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

PROTEIN FOODS (MEAT, SEAFOOD, BEANS & PEAS, NUTS, EGGS)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

OTHER

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NOTES: _____



Activity 3: Chopped Challenge

Before making a meal plan, it is wise to first consult the inventory you already have at home. Peek through your freezer, cabinets, refrigerator, and pantry to spot foods that you like and foods about to go bad if unused. This small strategy can have a big impact on reducing waste and lowering your family grocery bill.

For example, do you have a can of beans in the pantry, taco seasoning in the cabinet, and a pound of ground turkey in the fridge? These are the basic building blocks to make a variety of recipes.

- Now it's your turn to try! Select one to three ingredients you already have at home that you'd like to use.
 - ▶ **If you have access to the internet**, select one to three ingredients you already have at home that you'd like to use.
 - Go to the website, Use Up Leftovers, BigOven.com (<https://www.bigoven.com/use-up-leftovers>) and enter your ingredients in the "Use Up Leftovers" search boxes.
 - See what recipes come up when you do a search. After entering a few ingredients BigOven scans its database of more than one million recipes. Then, it returns recipe results with what you can make, for free!
 - ▶ **If you do not have access to the internet**, look around for recipe books or magazines that have recipes. See if there are any that will work with the ingredients that you selected.
 - Another option, ask an adult or a friend who has cooking experience for their ideas on what recipe to use based on the ingredients you selected.



Activity 4: Pick Your Poultry

Instructions:

- Compare the two packages of poultry, or chicken (i.e., Option 1 and Option 2).
- Which one would you purchase and why?
- If you buy based on the price tag alone, you may overlook other important considerations when purchasing this popular meat.
- Here are points to consider:
 - ▶ Price per pound
 - ▶ Leanness of meat
 - ▶ Religious considerations
 - ▶ Animal welfare
 - ▶ How the animals were raised
 - ▶ What the animals were fed

Option 1



Crescent Foods
Crescent Foods Halal Boneless Skinless Chicken Breasts, 1 - 2.12 lb

\$6.93 avg price \$5.33/lb

Final cost by weight

[Check availability nearby](#)

Pickup **not available** at Charlotte Store
[Check availability nearby](#)

Add to list Add to registry

Option 2



Foster Farms
Foster Farms Boneless Skinless Chicken Thighs, 1.4 - 2.2 lb

\$7.28 avg price \$4.64/lb

Final cost by weight

[Check availability nearby](#)

Pickup **not available** at Charlotte Store
[Check availability nearby](#)

Add to list Add to registry



What do the labeling terms mean?

View, “Raw Poultry Products: What do all those labels mean?” from the Alabama Cooperative Extension System. After reading the article, which poultry option would you purchase? Option 1 or Option 2? Why so?

Raw Poultry Products What do all those labels mean?

► Understanding the many labels on raw poultry products can help you choose the right product for you and your family.

Local supermarkets offer consumers more choices than ever. Each time you visit the poultry section of the meat department, you can select the chicken you buy based on how it was raised, what it ate, how it was processed, and whether it was seasoned prior to purchase. Navigating all the available choices and labels can be a real challenge. This guide will help you to understand the labels you commonly see.



Conventional, Free Range, Pasture Raised

Most broilers in the United States are raised in large, environmentally controlled houses. These birds are described as conventionally raised. Growing broilers inside an enclosed house regulates temperature and prevents outside contamination from wild birds.

Other options include free-range and pasture-raised chickens. Free-range chickens are raised in stationary houses and have access to the outdoors. Pasture-raised chickens are raised outdoors with access to a moveable enclosure. “Raised cage-free” is another phrase you might find on a chicken label. Conventional, free-range, and pasture-raised chickens raised for meat are all cage free.



No Added Hormones, No Antibiotics Ever, All Vegetarian, Organic

Chickens are typically fed corn and soybean diets with added fats, vitamins, and minerals. Some product labels will state “no added hormones,” but that is not necessary. It is against the law to use hormones. Hormones cannot be added to broiler feed or given directly to birds.

Antibiotic-free chickens are those raised without the addition of antibiotics in the feed. Even if antibiotics are used, by law no antibiotic residues are allowed in any poultry meat.

All-vegetarian diets indicate that the chicken feed does not contain fats and oils from meat and poultry by-products. This labeling claim does not guarantee that the chickens did not eat any nonvegetable items, such as insects, that were available in their environments.

All chicken labeled as organic must comply with United States Department of Agriculture (USDA) federal regulations. From the second day after hatching, birds must be fed and managed using 100 percent organic feed. Access to the outdoors is also required.

Halal, Kosher

Halal-labeled chicken has been slaughtered according to the procedures required under Islamic law. The chickens cannot be stunned prior to slaughter, which must be performed by an adult Muslim invoking the name of Allah.

ANR-2386



Kosher-labeled chicken has been slaughtered according to Jewish law. Chickens must be slaughtered by a person trained in the rituals of kosher slaughter. After the meat has been slaughtered, it undergoes a process called kashering. Kashering is the salting of meat to remove all remaining blood.

Self-Basting, Natural, Fresh

Self-basting turkeys have been injected with or marinated in a solution of fat, broth, stock, or water with spices, flavor enhancers, or other approved ingredients. The percentage weight that has been added to the product is included on the label. These turkeys do not need to be brined at home before cooking.

The term *natural* indicates that no artificial ingredients or coloring were added and that the product was minimally processed.

Fresh poultry products have never been cooled to below 26 degrees F. Frozen products must be cooled to 0 degree F or below.



Humane Certifications

The American Humane Certified label requires that the farm on which the chickens are grown adhere to specific animal welfare standards. Specific standards are included for record keeping, feed and water, environmental specifications, transport to the processing plant, and processing of the chickens.

The Certified Humane label is similar to the American Humane Certified label, but with a few additional requirements. No animal by-products or antibiotics can be added to the feed. Environmental enrichment, such as straw bales, lengths of rope, or access to live vegetation, is also required.

To apply the label of humane certification, the farm on which the animals are raised must be audited to ensure that specific animal husbandry practices are followed. Lack of a humane label does not indicate that the product was not raised humanely. Those farms simply have not undergone the auditing process.



Whether you are looking for free-range organic breast fillets, low-cost conventionally raised meat, or a product to meet your religious requirements, you have an abundance of options to choose from. Understanding what those labels mean will help you to make the right choice for you and your family.



Dianna Bourassa, *Extension Specialist*, Assistant Professor, Poultry Science, Auburn University

For more information, contact your county Extension office. Visit www.aces.edu/ directory.

Trade and brand names used in this publication are given for information purposes only. No guarantee, endorsement, or discrimination among comparable products is intended or implied by the Alabama Cooperative Extension System.

The Alabama Cooperative Extension System (Alabama A&M University and Auburn University), is an equal opportunity educator and employer. Everyone is welcome! New April 2017, ANR-2386

© 2017 by the Alabama Cooperative Extension System. All rights reserved.

www.aces.edu



Activity 5: Winner Winner Chicken Dinner

Once you know how to properly select chicken, you can compare sale prices to buy it in bulk for a better value.

- What do you do with all that chicken, though?
- The answer is to sauté it all at once and then divide it into meal portions to freeze for later.
- Important note: follow recommendations for safe poultry handling as well as safe freezing and thawing tips. Salmonella and other illnesses from food contamination or spoilage are real risks if proper procedures are not followed.

Practice Safe Poultry Handling



DON'T TOUCH

FACT:

Salmonella causes one million foodborne illnesses in the United States each year, with 19,000 hospitalizations and 380 deaths.² Even one drop of raw poultry juice could contain enough *Campylobacter*—a common food-related germ—to cause illness.³

SCIENCE:

Poultry cross-contamination can occur from two major pathways:

1. Directly from raw poultry to products that will not receive further heat treatment (ready-to-eat foods).
2. Indirectly via work surfaces, hands, or other objects. **Rinsing poultry increases the chances of spreading raw juices around the kitchen.**

HIGH-RISK GROUPS

Children: Children under 4 are nearly 5x times more likely than adults to get bacterial infections from food.⁴

Seniors: After the age of 75, many adults have weakened immune systems, increasing the risk of contracting foodborne illness from germs like *Salmonella* and *Campylobacter*.⁵

SCIENCE BEHIND THE MESSAGES

In 2014, chicken was linked to 23 outbreaks, and is the food category responsible for the second-largest number of foodborne illnesses. Contaminated food sickens nearly 48 million people in the United States every year—that's 1 in 6.¹

There is a great deal of research behind the Don't Wing It Campaign (see page 2).

Refer to this information to help you discuss with consumers and the media the "why" behind the important safe handling behaviors of Don't Wing It.

IN STORE:



DISINFECT YOUR SHOPPING CART HANDLE

Use disinfectant wipes on surfaces, especially handlebar and child seat.

Why: 85% of people touch the shopping cart handle directly after handling raw poultry.⁶

Why: 49% had poultry juice on their hands when they touched the cart handle.⁷



PLACE POULTRY IN PLASTIC BAG

Use plastic bags provided at meat counter to help avoid contamination in the cart.

Why: Placing raw poultry in a plastic bag reduces the risk of pathogens coming into contact with produce and other grocery items or spreading to your hands and shopping cart.

Why: 23% of chicken packages had high bacteria counts. 7% had campylobacter.⁸



USE HAND SANITIZER

Use hand sanitizer after touching raw and packaged poultry if soap and water are not available.

Why: Using hand sanitizer in the store reduces your risk of cross-contamination through touch.

AT HOME:



PLACE IN THE FRIDGE OR FREEZER

Keep poultry in plastic bag and place on a low shelf to prevent leakage from contaminating other foods.

Why: 59% of grocery store customers stored poultry without placing in a plastic bag. This common behavior could potentially contaminate any surface poultry touches in the home.

Why: Bacteria can live for days to weeks on refrigerator surfaces that are contaminated with poultry juice.⁹



WASH HANDS BEFORE AND AFTER HANDLING

Use warm water and soap to clean hands and surfaces that have potentially come in contact with poultry or its juices.

Why: 90% of consumers cross-contaminated foods during meal preparation.¹⁰



For safety and quality it's best to buy poultry products before the "sell by" date marked on the package.



CHECK TEMP

FACT:

Bacteria grows rapidly in the temperature danger zone between 40 °F–140 °F.

SCIENCE:

Poultry must remain below 40 °F in the refrigerator and reach an internal temperature of 165 °F when cooked to kill harmful bacteria that can cause foodborne illness.

AT HOME:



THAW IN THE FRIDGE

Keep poultry at or below 40 °F when thawing.

Why: Refrigerate fresh poultry at 40 °F (4.4 °C) or below for a maximum of 2 days. Refrigerate cooked poultry at 40 °F (4.4 °C) or below for a maximum of 4 days.¹¹



USE A FOOD THERMOMETER

Cook poultry to a safe temperature of 165 °F to kill harmful bacteria.

Why: 50% of consumers were “likely to eat” a turkey patty that was cooked at a lower-than-safe temperature when they viewed it under LED lighting. Observational research showed that consumers perceived turkey patties as “more done” when viewed under new energy efficient lights.¹²

Why: In a nationwide survey, only 57% of consumers reported using a food thermometer for whole chickens; only 12–26% used one for smaller pieces.¹³

Don't Wing It is based on research supported by **USDA/ NIFA Grant No. 2012-68003-19606** "Development and Evaluation of Science-Based Messages to Improve Consumers' Storage, Handling and Preparation of Poultry and Poultry Products." Participating institutions: Tennessee State University, Kansas State University and RTI International. Dr. Sandria Godwin, Project Director.

1. "Estimates of Foodborne Illness in the United States." Centers for Disease Control and Prevention. 15 July 2016.
2. "Salmonella." Centers for Disease Control and Prevention. 30 Dec. 2016.
3. "Campylobacter." Centers for Disease Control and Prevention. 03 June 2014.
4. CDC. Foodborne Diseases Active Surveillance Network (FoodNet). FoodNet Surveillance Report for 2012 (Final Report). Atlanta, Georgia: US.
5. Center for Food Safety and Applied Nutrition. "People at Risk of Foodborne Illness - Food Safety for Older Adults." U.S. Food and Drug Administration Home Page. Center for Food Safety and Applied Nutrition. Sept. 2011.
6. Donelan, A., Chambers, D.H., Chambers, E IV, Godwin, S., and Cates, S. 2016. Consumer poultry handling behaviors in the grocery store and in-home storage. Journal of Food Protection 79(4):584-588.
7. Chen, F., Godwin, S., Stone, R., Chambers, D., Donelan, A., Chambers, E IV, and Cates, S. 2014. Evaluation of chicken meat juice on hands, chicken packages, and contact surfaces during and after grocery shopping. Journal of Food Protection. 77(A):65.
8. Chen, F., Godwin, S., Green, A., Chowdhury, A., and Stone, R. 2014. Microbiological evaluation of poultry product packages from grocery stores in Nashville, TN. Journal of Food Protection 78(A):181.
9. Chen, F., Godwin, S., Frederick, A., Wakefield, M. and Gagula, H. 2015. Survival of salmonella on the kitchen and food packages surfaces contaminated with raw meat juice. Journal of Food Protection 78(A):181.
10. Maughan, C., Chambers, E IV, Godwin, S., Chambers, D., Cates, S., and Hoppel, K. 2016. Food handling behaviors observed in consumers when cooking poultry and eggs. Journal of Food Protection 79(4):970-977.
11. Chicken from Farm to Table." USDA Food Safety and Inspection Service. 24 Mar. 2015.
12. Chambers, E IV, Godwin, S. and Maughan, C. 2016. Changes in lighting conditions may negatively impact perception of doneness of cooked turkey patties. Journal of Food Protection. 79(A):123.
13. Kosa, K., Cates, SC, Bradley, S., Chambers, E IV. And Godwin S. 2014. Consumer handling of raw poultry products at home. Journal of Food Protection 78(1):180-186.



www.fightbac.org

[@Fight_BAC](https://twitter.com/Fight_BAC)





PERDUE RECIPES HOW TO PRODUCTS PERDUE WAY PROMOTIONS THE TABLE SHOP NOW

CONTACT US OUR COMPANY CAREERS SEE MORE

HOW TO: FREEZING AND THAWING

SAVE

Keep Your chicken fresh, flavorful, and safe.



FREEZING

- ✔ Refrigerate or freeze poultry quickly after purchase, ideally within a half hour.
- ✔ In the freezer, pack foods tightly so items can keep each other cold.
- ✔ Seal packages well before freezing. After sealing, clearly identify them and mark with a date
- ✔ Keep your freezer at 0°F and the refrigerator at 36°F. Check temperatures regularly with a thermometer.



THAWING

- You can thaw by immersing packaged poultry in cold water, making sure to change the water every half hour.
- Defrost in the refrigerator, not on the counter, allowing a few hours to a full day, depending on size. A safe guideline is to allow five hours per pound.
- When defrosting poultry in the refrigerator, make sure to put it on the bottom shelf in the back of the fridge.
- Always cook poultry the day it completely thaws. Never re-freeze thawed poultry. Use it or throw it out.
- You don't need to defrost poultry before cooking. Just multiply the recommended cooking time by 1½.



HOW LONG WILL IT LAST IN THE FREEZER?

Fully Cooked Products	
Breaded nuggets, tenderloins, strips, bites, and cutlets	Up to 6 months
PERDUE® SHORT CUTS® carved chicken or Turkey breast strips	Up to 6 months
Turkey meatballs	Up to 6 months

Ready-to-Cook Products	
Whole Chicken and Whole Turkey or parts	12 months
PERDUE® OVEN STUFFER® Roaster	12 months
PERDUE® OVEN READY Roaster	6 months
Liver or other giblets	2-3 months
PERDUE® PERFECT PORTION® Chicken	6 months
Ground Chicken, Turkey & Sausage	2-3 months



REMEMBER



Ensure doneness with a meat thermometer.

Refrigerate any leftover chicken or turkey immediately and use within 3-5 days.

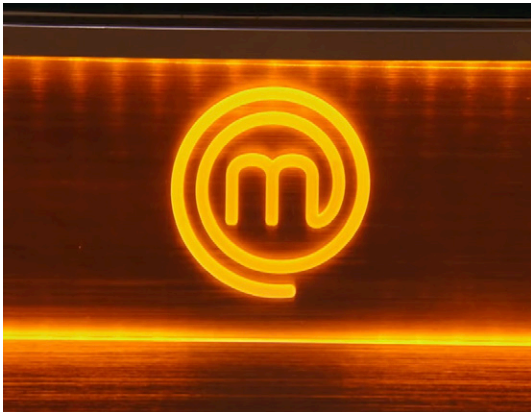


View the video screenshots and read the narration of this Masterchef Junior Cooking Demo, with instruction by celebrity chef Gordon Ramsay, where he shows young people how to perfectly sauté chicken.

Gordon Ramsay Demonstrates How To Cook A Perfect Chicken Breast

Season 6 Ep.2 | MASTERCHEF JUNIOR

Also available online at: <https://youtu.be/vrpcnb0osM4>

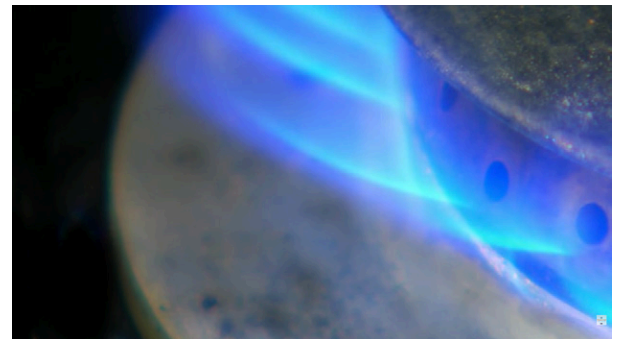


[GORDON]: I am about to show you how to cook a stunning breast of chicken.





All of you watch and learn.



First things first, gas on.



You need some heat in that pan.



Remember,
no color, no ...

Flavor!

No color, no ...



**[KIDS IN UNISON]:
FLAVOR!**



[GORDON]: Season the chicken. Salt and pepper.



Pan's getting nice and hot. A tablespoon of oil in first.



Place the chicken at six o'clock and lay it away from you.



Chicken breast takes between 12 and 15 minutes to cook.



Once we've got the color on the skin, get to the thinnest part of the chicken ...



and lay ...



**[KIDS IN UNISON]:
AWAY!**



[GORDON]: No color, no ...



[KIDS IN UNISON]: F L A V O R !

[GORDON]: And lay ...



[KIDS IN UNISON]: A W A Y !



Once you've flipped it the first time ...



Back of the knife, lightly crush the garlic.



Fresh rosemary in.



Fresh thyme.



Some butter in there.



[CHILD IN THE AUDIENCE]:
Basting!

[GORDON]: Thank you,
who said basting?



[CHILD IN THE AUDIENCE]: Me!

[GORDON]: Good!





Spoon over beautiful fragrant herbs.



Every two minutes turn your chicken, gently.



Take that breast out.



[AUDIENCE]:
Oh my God!



[GORDON]: A beautiful moist chicken breast.

And that's how you cook chicken like a true Master Chef.





• **Optional, if you have access to the internet:**

- ▶ Try entering the term “sauteed chicken” into Use Up Leftovers, BigOven.com (<https://www.bigoven.com/use-up-leftovers>).
- ▶ You will gain access to more than 350 recipes that help use the leftover sauteed chicken you have to prepare a main dish, soup, stew, chili, or salad recipe. The difficult part will be deciding what to cook first!

Post-Assessment

- Return to the official USDA Thrifty Food Plan (page 3) from February 2022 with cost estimates used in the pre-assessment.
- This time, use it to calculate the estimated cost of feeding your own family. Show your calculations based on how many people are in your family and the final cost.
- Write a general meal plan, using what you’ve learned, that you think could achieve for your family for one week.
- Share your ideas with those around you (in your home or in your class).
- If you are in a class or a group:
 - ▶ What tips did you discover from other people’s plans?
 - ▶ Do you need to make any adjustments to your own approach?
 - For instance, did you shop your home inventory first? Did you stretch meat by halving it with beans and vegetables?
 - ▶ How can you shop around for the best values?
- For individual learners:
 - ▶ Share your ideas with someone in your family.
 - ▶ Do they have any tips on how to maximize your budget?
 - ▶ Do you need to make any adjustments to your own approach?
 - For instance, did you shop your home inventory first? Did you stretch meat by halving it with beans and vegetables?
 - ▶ How can you shop around for the best values?