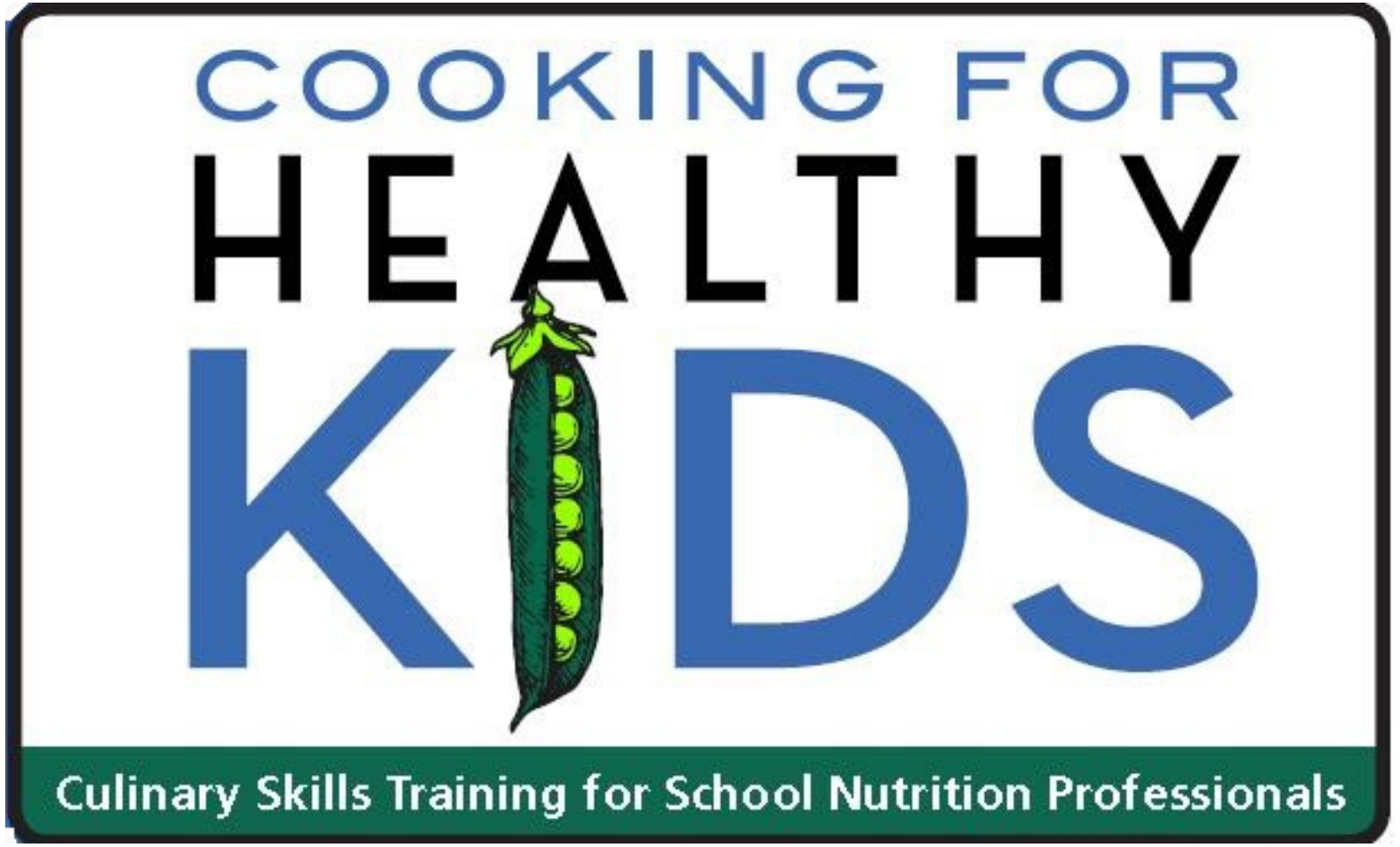





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# Course Goals

1. Improve the culinary skill level of school nutrition professionals.

2. Improve the quality of meals served to students.

3. Increase the consumption of vegetables, fruits, whole grains, plant proteins and lean meats amongst school-aged children.



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# Learning Objectives

- Apply the essential concept of *mise en place* and understand the benefits of kitchen organization.
- Demonstrate healthier cooking methods that apply the nutrition principles of the *Dietary Guidelines for Americans*.
- Demonstrate proper use of a chef's knife.
- Demonstrate roasting, steaming, blanching and quick pickling of vegetables.
- Demonstrate how to enhance flavors of foods using herbs, spices, culinary acids, and other ingredients.
- Build school meals in an attractive and appealing manner.
- Learn and apply scratch baking principles and techniques.


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# Week Overview

- Day 1: Knife Skills
- Day 2: Vegetable Cookery
- Day 3: Great Grains
- Day 4: Sandwiches
- Day 5: Salads







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# Daily Schedule






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# Key Focuses

- Culinary technique
- Product evaluation
- How am I going to apply what I learned?












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# Kitchen Keys: Weights & Volumes

## Day One

# Weights & Measures in School Foodservice

- Accurate weights and measures are essential for producing high-quality, consistent meals
- Recipes depend on correct units, tools, and techniques
- Basic math skills support recipe scaling, conversions, and adjustments



# Weight vs. Volume

- **Weight** measures and item's **mass** (ounces, pounds)
- **Volume** measures the **amount of space an item occupies** (teaspoon, tablespoon, fluid ounce, cup, pint, quart, gallon)
- Weight and volume are not interchangeable









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# Why Weight is Often More Accurate




- A pound of bricks and a pound of feathers weigh the same, but take up different amounts of space
- Weight is more accurate for solid ingredients over 2 ounces
- Liquids are best measured by volume


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# **Popcorn:**
# Why We Measure the Right Way

## Demonstration



# Why Accuracy Matters

- Measuring solids by volume can lead to large variations
  - Example: Flour amounts vary based on scooping, packing, and leveling
- Small differences can affect final product quality










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# Common Measuring Tools

- Scales measure weight
  - Most accurate for dry ingredients
- Measuring cups and spoons measure volume
  - Works best for liquids
- Scoops measure volume
  - The scoop number equals scoops per quart










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# Dry vs. Liquid Measuring Tools

- **Liquid cups** include a **spout and headspace** to prevent spills
- **Dry cups** have **straight rims** for leveling
- **Ounces** measure weight; **fluid ounces** measure volume






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# Proper Measuring Techniques

- Lightly spoon dry ingredients and level with a flat edge
- Avoid tapping or shaking measuring containers
- Brown sugar is usually packed unless stated otherwise





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# Additional Best Practices

- Use a scale whenever possible
- Check liquid measurements at eye level using the meniscus
  - Meniscus – the natural curve that forms at the surface of a liquid in a measuring cut
- **<u>Measure all ingredients before starting the recipe</u>**





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# Serving and Portion Control

- Serving size impacts yield, cost, and satisfaction
- Scoops ensure consistent portions
- Incorrect portions lead to waste and shortages





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# Volume Measure Equivalencies

- 3 teaspoons = 1 tablespoon
- 16 tablespoons = 1 cup
- 2 cups = 1 pint
- 2 pints = 1 quart
- 4 quarts = 1 gallon

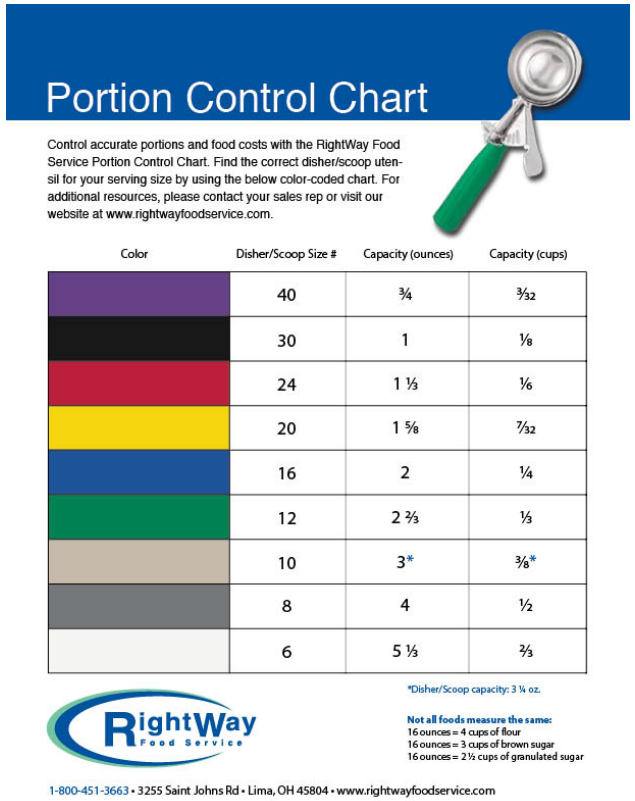
| Weights and Measures Equivalencies | | |
|---|---|---|
| dash | ..... | less than 1/8 teaspoon |
| 3 teaspoons (tsp.) | ..... | 1 Tablespoon (1/2 fl. oz.) |
| 2 Tablespoons (Tbsp.) | ..... | 1/8 cup (1 fl. oz.) |
| 4 Tablespoons | ..... | 1/4 cup (2 fl. oz.) |
| 8 Tablespoons | ..... | 1/2 cup (4 fl. oz.) |
| 16 Tablespoons | ..... | 1 cup (8 fl. oz.) |
| 1 gill | ..... | 1/2 cup |
| 2 cups | ..... | 1 pint |
| 2 pints | ..... | 1 quart (approx. 1 liter) |
| 4 quarts | ..... | 1 gallon |
| 8 quarts | ..... | 1 peck |
| 4 pecks | ..... | 1 bushel |



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# Scoop Sizes

- The scoop number shows how many level scoops equal one quart
- Using the correct scoop improves the consistency and yield control



## Portion Control Chart

Control accurate portions and food costs with the RightWay Food Service Portion Control Chart. Find the correct disher/scoop utensil for your serving size by using the below color-coded chart. For additional resources, please contact your sales rep or visit our website at www.rightwayfoodservice.com.

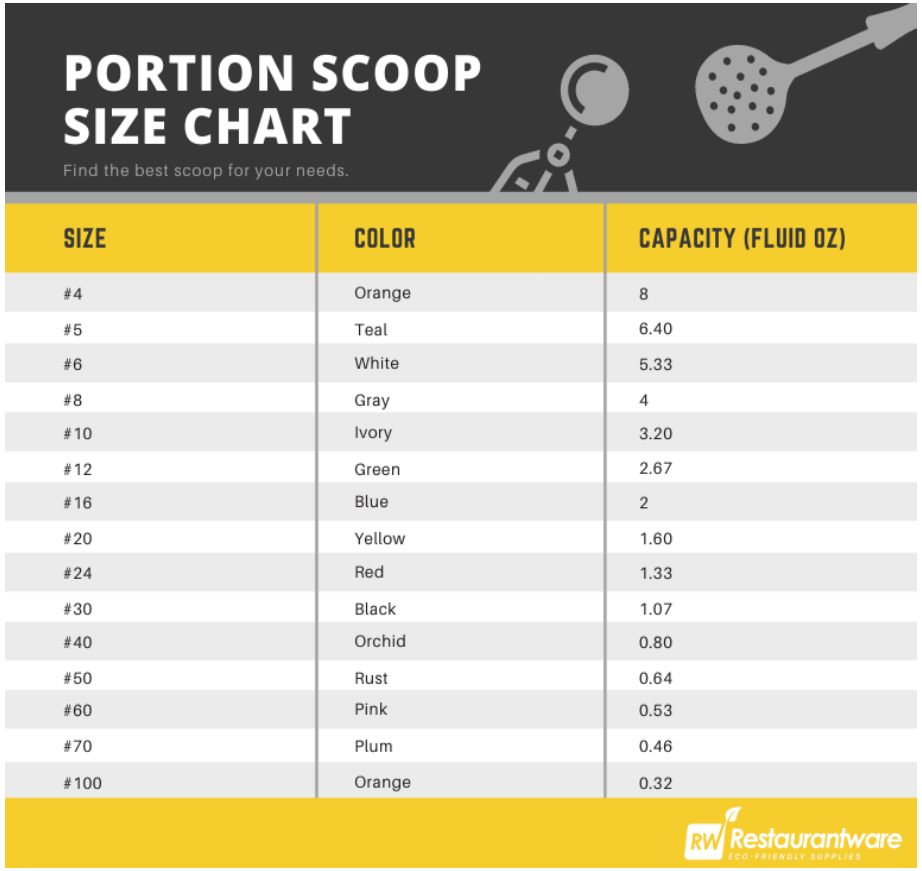
| Color | Disher/Scoop Size # | Capacity (ounces) | Capacity (cups) |
|---|---|---|---|
| | 40 | ¾ | 3/32 |
| | 30 | 1 | ⅛ |
| | 24 | 1 ⅓ | ⅙ |
| | 20 | 1 ⅝ | 7/32 |
| | 16 | 2 | ¼ |
| | 12 | 2 ⅔ | ⅓ |
| | 10 | 3* | 3/8* |
| | 8 | 4 | ½ |
| | 6 | 5 ⅓ | ⅔ |

*Disher/Scoop capacity: 3 ¼ oz.

RightWay Food Service

**Not all foods measure the same:**
16 ounces = 4 cups of flour
16 ounces = 3 cups of brown sugar
16 ounces = 2 ½ cups of granulated sugar

1-800-451-3663 • 3255 Saint Johns Rd • Lima, OH 45804 • www.rightwayfoodservice.com



## PORTION SCOOP SIZE CHART

Find the best scoop for your needs.

| SIZE | COLOR | CAPACITY (FLUID OZ) |
|---|---|---|
| #4 | Orange | 8 |
| #5 | Teal | 6.40 |
| #6 | White | 5.33 |
| #8 | Gray | 4 |
| #10 | Ivory | 3.20 |
| #12 | Green | 2.67 |
| #16 | Blue | 2 |
| #20 | Yellow | 1.60 |
| #24 | Red | 1.33 |
| #30 | Black | 1.07 |
| #40 | Orchid | 0.80 |
| #50 | Rust | 0.64 |
| #60 | Pink | 0.53 |
| #70 | Plum | 0.46 |
| #100 | Orange | 0.32 |

RW Restaurantware ECO-FRIENDLY SUPPLIES



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# Ladles and Pan Capacity

- Ladles measure volume and are labeled in fluid ounces
- Steam table pans are filled to about 85% capacity
- Understanding pan capacity supports accurate production planning

| Steam Table Pan Capacity | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pan Size | Depth | Full Topped-off Capacity | | | 85% Capacity | | |
| | | Cup | Qt | Ltr | Cup | Qt | Ltr |
| Full/Hotel Pan | 2" | 33.2 | 8.3 | 7.9 | 28.2 | 7.1 | 6.7 |
| | 4" | 56.0 | 14 | 13.25 | 47.6 | 11.9 | 11.3 |
| | 6" | 84.0 | 21 | 19.87 | 71.4 | 17.9 | 16.9 |
| Half Pan | 2" | 17.2 | 4.3 | 4.07 | 14.6 | 3.7 | 3.5 |
| | 4" | 26.8 | 6.7 | 6.34 | 22.8 | 5.7 | 5.4 |
| | 6" | 40.0 | 10 | 9.46 | 34.0 | 8.5 | 8.0 |
| Torpedo Pan | 1" | 8.4 | 2.1 | 1.99 | 7.1 | 1.8 | 1.7 |
| | 2" | 14.8 | 3.7 | 3.5 | 12.6 | 3.1 | 3.0 |
| | 4" | 22.8 | 5.7 | 5.39 | 19.4 | 4.8 | 4.6 |
| | 6" | 32.8 | 8.2 | 7.76 | 27.9 | 7.0 | 6.6 |
| Two-thirds Pan | 1" | 16.0 | 4 | 3.79 | 13.6 | 3.4 | 3.2 |
| | 2" | 22.4 | 5.6 | 5.3 | 19.0 | 4.8 | 4.5 |
| | 4" | 37.2 | 9.3 | 8.8 | 31.6 | 7.9 | 7.5 |
| | 6" | 56.0 | 14 | 13.25 | 47.6 | 11.9 | 11.3 |
| Third Pan | 2" | 10.4 | 2.6 | 2.46 | 8.8 | 2.2 | 2.1 |
| | 4" | 16.4 | 4.1 | 3.88 | 13.9 | 3.5 | 3.3 |
| | 6" | 24.4 | 6.1 | 5.77 | 20.7 | 5.2 | 4.9 |
| Fourth Pan | 2" | 7.2 | 1.8 | 1.7 | 6.1 | 1.5 | 1.4 |
| | 4" | 12.0 | 3 | 2.84 | 10.2 | 2.6 | 2.4 |
| | 6" | 18.0 | 4.5 | 4.26 | 15.3 | 3.8 | 3.6 |
| Sixth Pan | 2" | 4.8 | 1.2 | 1.14 | 4.1 | 1.0 | 1.0 |
| | 4" | 7.2 | 1.8 | 1.7 | 6.1 | 1.5 | 1.4 |
| | 6" | 10.8 | 2.7 | 2.56 | 9.2 | 2.3 | 2.2 |
| Ninth Pan | 2" | 2.4 | 0.6 | 0.57 | 2.0 | 0.5 | 0.5 |
| | 4" | 6.4 | 1.6 | 1.51 | 5.4 | 1.4 | 1.3 |

Adapted from: Chef Resources | Professional Chef Websites | Culinary & Chef Information



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# Portion Accuracy Challenge:

1 Ounce Meatball



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# Improved Nutrition in School Meals:

## Why Culinary Skills Matter

Day One

# Improving Meal Quality




Your cafeteria or school food operation may be the largest restaurant in your community.



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"High quality, flavor, and attractiveness should be the keynotes of the child nutrition program food policy."

-Mary de Garmo Bryan, in the 1936 textbook

*The School Cafeteria*

# National School Lunch Act 1946

**Purpose:**

"It is hereby declared to be the policy of Congress, *as a measure of national security*, to *safeguard the health and well-being of the Nation's children* and to encourage the domestic consumption of **nutritious** agricultural commodities and other food…."



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# National School Lunch Act 1946

"...The *educational features of a properly chosen diet served at school* should not be under-emphasized. Not only is the child taught what a good diet consists of, but his parents and family likewise are indirectly instructed."



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# The National School Lunch Act

"In the long view, no nation is any healthier than its children or more prosperous than its farmers; and in the National School Lunch Act, the Congress has contributed immeasurably both to the welfare of our farmers and the health of our children."

President Harry Truman

June 4, 1946

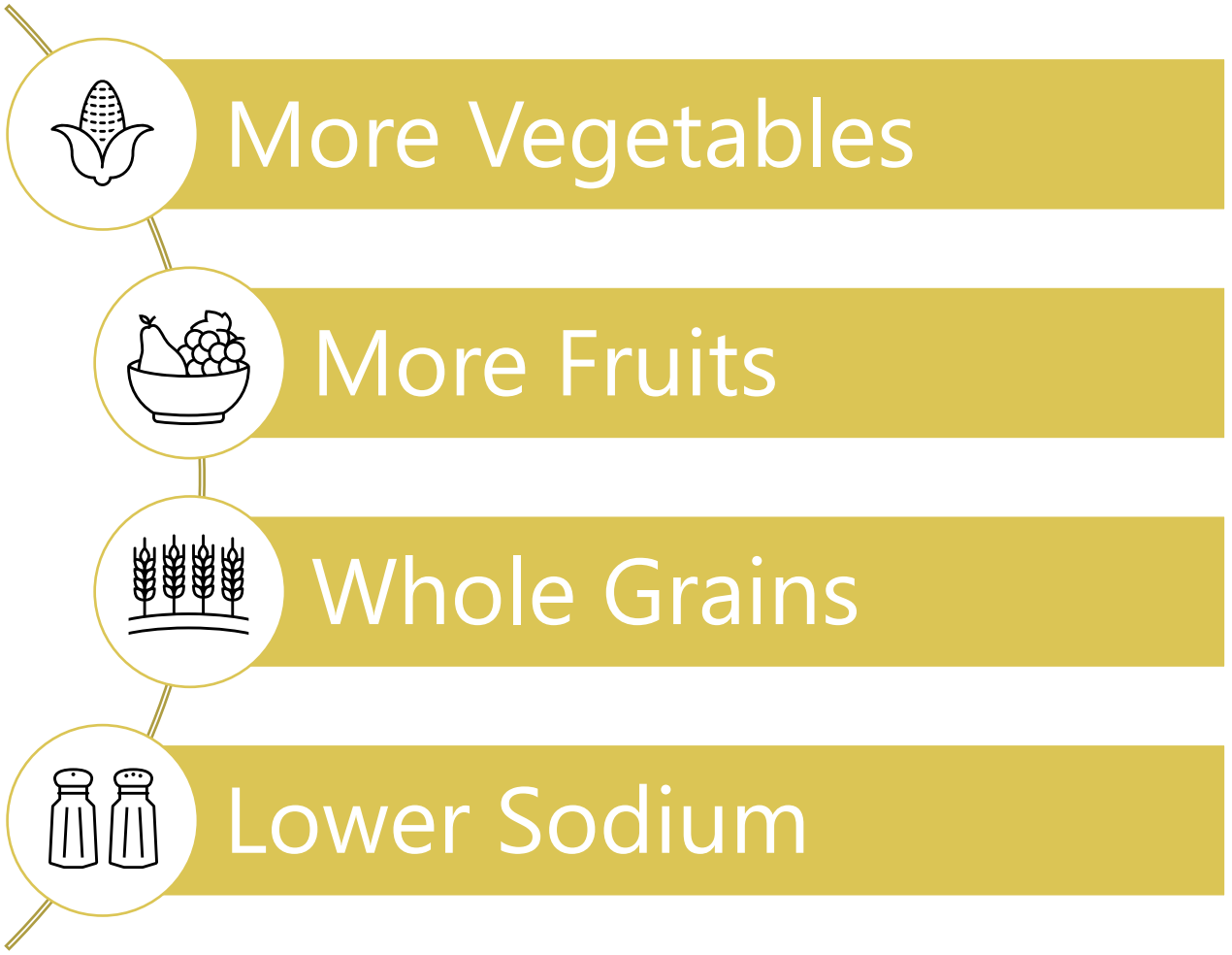




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# Healthy, Hunger-Free Kids Acts 2010

Improve the nutritional quality of school meals and ensure better access to healthy foods for children.






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# School Meals Today

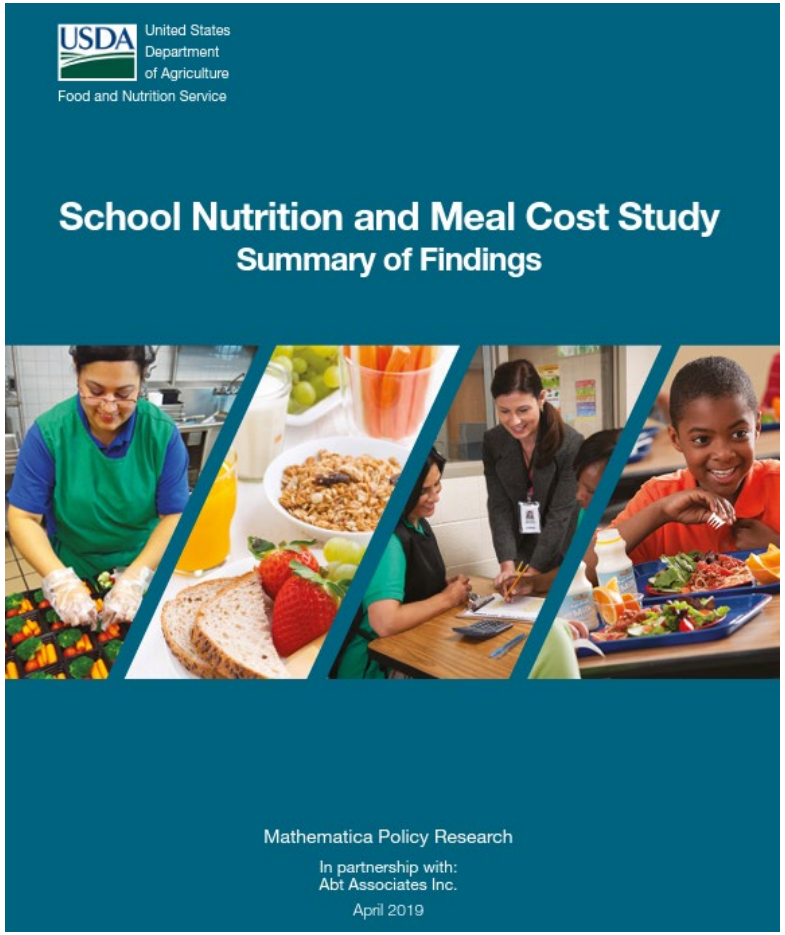





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# School Nutrition and Meal Cost Study

A comprehensive research effort conducted by the USDA to assess various aspects of school meal programs (2019).








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Source: https://www.fns.usda.gov/school-nutrition-and-meal-cost-study

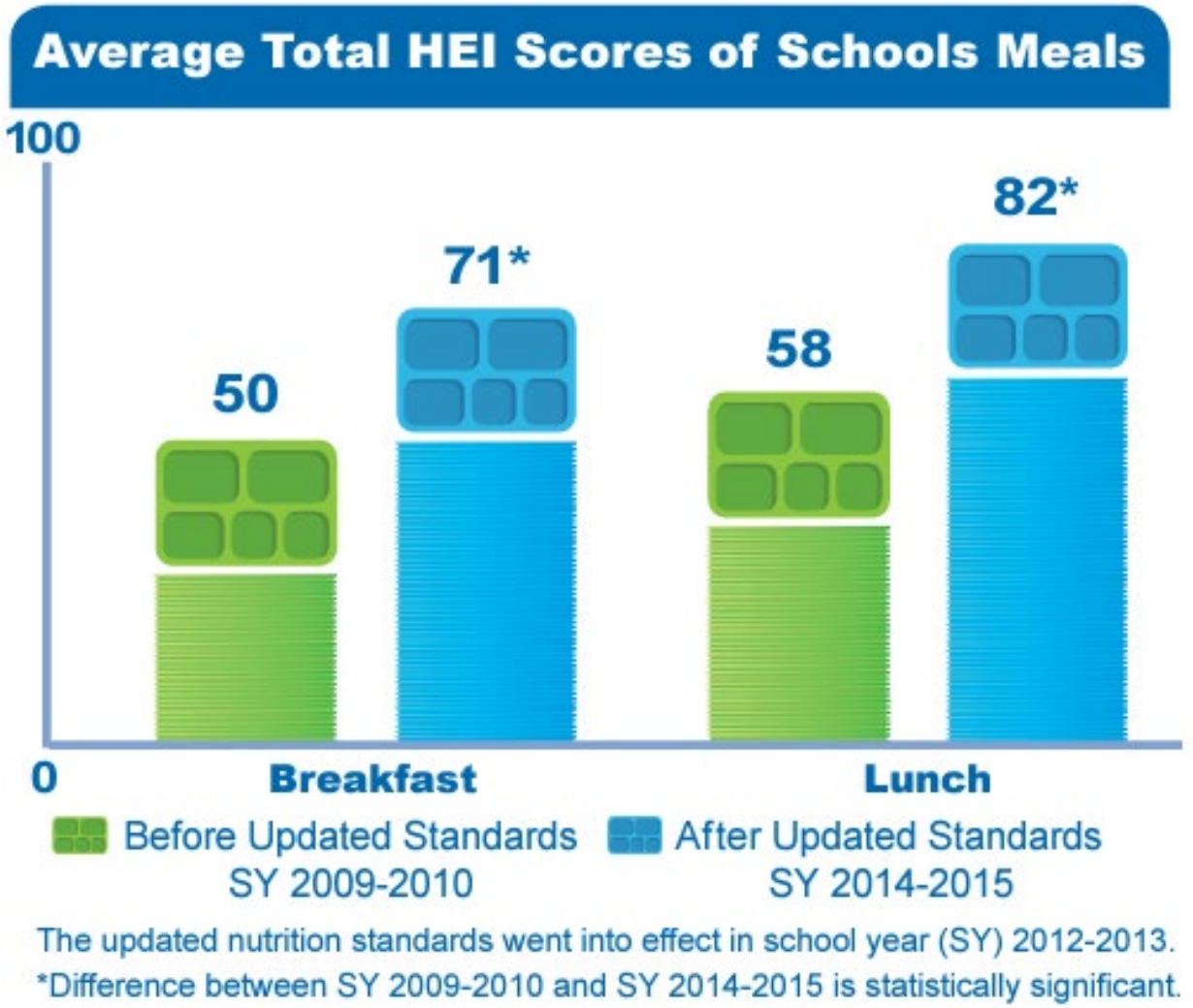
# School Meals are More Nutritious

**The Healthy Eating Index (HEI)**
assigns scores to meals based on how consistent they are with the Dietary Guidelines for Americans.

**Higher scores indicate higher nutritional quality.**




**The HEI includes a total score and separate scores for different components of a healthy diet.**






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Source: https://www.fns.usda.gov/school-nutrition-and-meal-cost-study

# Academic Benefits

Improved standardized test scores in math and English Language Arts

Improved attention and learning retainment

Improved overall attendance, reduced tardiness and decrease in suspensions

Increase in overall educational attainment in adulthood





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# Health Benefits

Improved rates of mental illness (including anxiety and depression)

Improved overall behavioral health and reducing classroom disruptive behaviors

Reduced rates of overweight and obesity





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# Equity Benefits

| | |
|---|---|
| Reduce | Reduce rates of food insecurity |
| Reduce | Reduce stigmas related to free or reduced-price meals |
| Increase | Increase availability of nutritious foods to minority students |





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# Dietary Guidelines for Americans & School Meal Standards

## What School Nutrition Professionals Need to Know

Day 1

# Why We're Talking About the *Dietary Guidelines for Americans (DGAs)*

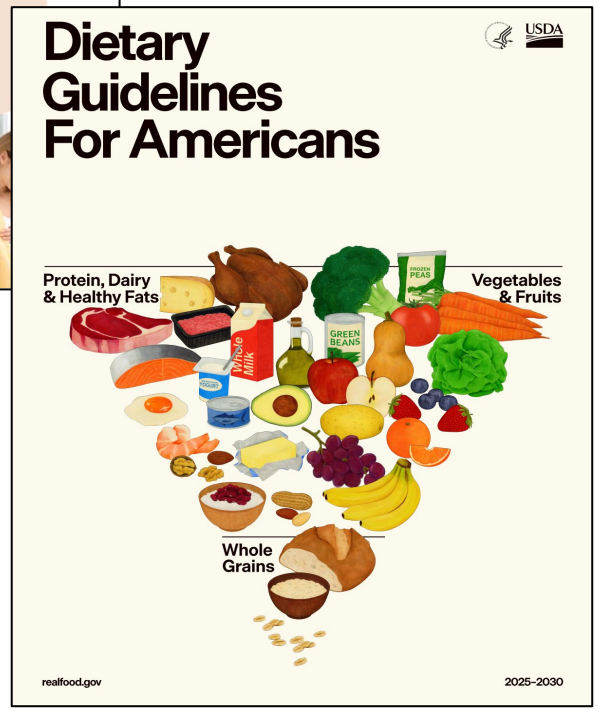
Provide recommendations about what makes a healthy diet

Focus on disease *prevention* rather than disease *treatment*

Guide all federal nutrition programs & USDA uses them to set school meal standards

Current school meal rules are based on the 2020-2025 DGAs






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# *DPG* Facts

- Updated every 5 years
- Developed by the USDA and the Health and Human Services (HHS)
- Based on the best available science





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# The DGAs That Matter Right Now: 2020-2025

- Current USDA school meal standards are based on the 2020-2025 *DGAs*
- Focus on healthy dietary patterns
- Emphasis on nutrient-dense foods





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# April 25, 2024: USDA Final Rule

- USDA Food and Nutrition Services (FNS) published a final rule
- Title: *Child Nutrition Programs: Meal Patterns Consistent With the 2020-2025 DGAs*
- Continues science-based improvements to school meals









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# What the 2024 Final Rule is Based On



Comprehensive review of the 2020-2025 DGAs



Robust stakeholder input on the Child Nutrition Program (CNP) meal patterns



Lessons learned from prior rulemakings



This rulemaking was effective July 1, 2024, but the USDA is gradually phasing in required changes over time



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# Key Updates and When Schools Must Take Action

## Earliest required changes: School Year (SY) 2025-2026

## Added sugar limits:

- Product-based limits begin SY 2025-26
  - Breakfast cereals: no more than 6 grams of added sugar per dry ounce
  - Yogurt: no more than 12 grams of added sugar per 6 ounces (2 grams of added sugar per ounce)
  - Flavored milk: no more than 10 grams of added sugars per 8 fluid ounces
    - Competitive beverage for middle and high school students: no more than 15 grams of added sugars per 12 ounces
- Weekly limits by SY 2027-28

## Sodium reductions:

- 10% reduction for breakfast, 15% for lunch by SY 2027-28



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# Key Updates and When Schools Must Take Action

- **Whole Grains:** 80% of grains offered must be whole-grain-rich (no change)
- **Milk:** Flavored low-fat and fat-free milk continues
- **Vegetables:** At breakfast, schools must offer at least two vegetable subgroups when substituting vegetables for fruit*
- **NSLP Snacks Meal Pattern:** NSLP afterschool snack meal pattern requirements for K-12 children updated to align with the Child and Adult Care Food Program (CACFP) snack meal pattern requirements
- **Meal Modifications for Disabilities:** Schools must accept medical statements provided by Registered Dietitians requesting meal modifications on behalf of students with disabilities
- **Buy American:** Stronger enforcement of domestic purchasing


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# School Meals Are Already Healthy



MUST MEET STRICT FEDERAL NUTRITION STANDARDS



ALIGNED WITH THE *DGAS*



AMONG THE MOST NUTRITIOUS MEALS CHILDREN EAT



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# What is the “Meal Pattern”?



The structure of a reimbursable meal



Specifies food groups and portion sizes



Based on the *DGAs*



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# National School Lunch Program

1

**5 Components:**
Fruits, Vegetables, Grains, Meats/Meat Alternates, Milk

2

Portion sizes by grade group (K-5, 6-8, 9-12)

3

Students must take at least 3 components, one must be a fruit or vegetable



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# NSLP Meal Pattern Chart

Required Food Components for Lunch as of July 2024

**Amount of Food1per Week (Minimum Per Day)**

| Meal Components | Grades K-5 | Grades 6-8 | Grades 9-12 |
|---|---|---|---|
| Fruits (cups)[2] | 2 1/2 (1/2) | 2 1/2 (1/2) | 5 (1) |
| Vegetables (cups)[2] | 3 3/4 (3/4) | 3 3/4 (3/4) | 5 (1) |
| Vegetables – Dark ateen subgroup[3] | 1/2 | 1/2 | 1/2 |
| Vegetables – Red/orange subgroup[3] | 3/4 | 3/4 | 1 1⁄4 |
| Vegetables – Beans, peas, and lentils subgroup[3] | 1/2 | 1/2 | 1/2 |
| Vegetables – Starchy subgroup[3] | 1/2 | 1/2 | 1/2 |
| Vegetables – Other vegetables subgroup[3,4] | 1/2 | 1/2 | 3/4 |
| Vegetables – Additional vegetables from any subgroup to reach total | 1 | 1 | 1 1/2 |
| Grains (oz. eq.)[5] | 8–9 (1) | 8–10 (1) | 10–12 (2) |
| Meats/meat alternates (oz. eq.)[6] | 8–10 (1) | 9–10 (1) | 10–12 (2) |
| Fluid milk (cups)[7] | 5 (1) | 5 (1) | 5 (1) |



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# NSLP Dietary Specifications

## Daily Amount Based on the Average for a 5-Day Week[8]

| Dietary Specifications | Grades K-5 | Grades 6-8 | Grades 9-12 |
|---|---|---|---|
| Minimum-maximum calories (kcal) | 550–650 | 600–700 | 750–850 |
| Saturated fat (% of total calories) | less than 10 | less than 10 | less than 10 |
| Added sugars (% of total calories) - must be implemented by July 1, 2027 | less than 10 | less than 10 | less than 10 |
| Sodium limit - in place through June 30, 2027 | Less than or equal to 1,110 mg | Less than or equal to 1,225 mg | Less than or equal to 1,280 mg |
| Sodium limit - must be implemented by July 1, 2027 | Less than or equal to 935 mg | Less than or equal to 1,035 mg | Less than or equal to 1,080 mg |

Endnotes

[1] Food items included in each group and subgroup and amount equivalents.

[2] Minimum creditable serving is 1⁄8 cup. 1/4 cup of dried fruit counts as 1/2 cup of fruit; 1 cup of leafy greens counts as 1⁄2 cup of vegetables. No more than half of the fruit or vegetable offerings may be in the form of juice. All juice must be 100 percent full-strength.

[3] Larger amounts of these vegetables may be served.

[4] This subgroup consists of "Other vegetables" as defined in paragraph (c)(2)(ii)(E) of this section. For the purposes of the NSLP, the "Other vegetables" requirement may be met with any additional amounts from the dark green, red/orange, and bean, peas, and lentils vegetable subgroups as defined in paragraph (c)(2)(ii) of this section.

[5] Minimum creditable serving is 0.25 oz. eq. At least 80 percent of grains offered weekly (by ounce equivalents) must be whole grain-rich as defined in § 210.2 of this chapter, and the remaining grains items offered must be enriched.

[6] Minimum creditable serving is 0.25 oz. eq.

[7] Minimum creditable serving is 8 fluid ounces. All fluid milk must be fat-free (skim) or low-fat (1 percent fat or less) and must meet the requirements in paragraph (d) of this section.

[8] By July 1, 2027, schools must meet the dietary specification for added sugars. Schools must meet the sodium limits by the dates specified in this chart. Discretionary sources of calories may be added to the meal pattern if within the dietary specifications.

(U.S. Department of Agriculture, 2024c)



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# School Breakfast Program

3 Components:

Must offer 4 items daily

Students must select at least 3 items, including fruit or vegetable



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# SBP Meal Pattern Chart

Required Food Components for Breakfast as of July 2024

**Amount of Food[1] per Week (Minimum Per Day)**

| Meal Components | Grades K-5 | Grades 6-8 | Grades 9-12 |
|---|---|---|---|
| **Fruits (cups)[2]** | 5 (1) | 5 (1) | 5 (1) |
| **Vegetables (cups)[2]** | 0 | 0 | 0 |
| **Vegetables – Dark green subgroup** | 0 | 0 | 0 |
| **Vegetables – Red/orange subgroup** | 0 | 0 | 0 |
| **Vegetables – Beans, peas, and lentils subgroup** | 0 | 0 | 0 |
| **Vegetables – Starchy subgroup** | 0 | 0 | 0 |
| **Vegetables – Other vegetables subgroup** | 0 | 0 | 0 |
| **Grains or meats/meat alternates (oz. eq.)[3]** | 7–10 (1) | 8–10 (1) | 9–10 (1) |
| **Fluid milk (cups)[4]** | 5 (1) | 5 (1) | 5 (1) |



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# SBP Dietary Specifications

## Daily Amount Based on the Average for a 5-Day Week[5]

| Dietary Specifications | Grades K-5 | Grades 6-8 | Grades 9-12 |
|---|---|---|---|
| **Minimum-maximum calories (kcal)** | 350–500 | 400–550 | 450–600 |
| **Saturated fat (% of total calories)** | less than 10 | less than 10 | less than 10 |
| **Added sugars (% of total calories) - must be implemented by July 1, 2027** | less than 10 | less than 10 | less than 10 |
| **Sodium limit - in place through June 30, 2027** | Less than or equal to 540 mg | Less than or equal to 600 mg | Less than or equal to 640 mg |
| **Sodium limit - must be implemented by July 1, 2027** | Less than or equal to 485 mg | Less than or equal to 535 mg | Less than or equal to 570 mg |

Endnotes
[1] Food items included in each group and subgroup and amount equivalents.
[2] Minimum creditable serving is 1⁄8 cup. Schools must offer 1 cup of fruit daily and 5 cups of fruit weekly. Schools may substitute vegetables for fruit at breakfast as described in paragraphs (c)(2)(i) and (ii) of this section.
[3] Minimum creditable serving is 0.25 oz. eq. School may offer grains, meats/meat alternates, or a combination of both to meet the daily and weekly ounce equivalents for this combined component. At least 80 percent of grains offered weekly at breakfast must be whole grain-rich as defined in § 210.2 of this chapter, and the remaining grain items offered must be enriched.
[4] Minimum creditable serving is 8 fluid ounces. All fluid milk must be fat-free (skim) or low-fat (1 percent fat or less) and must meet the requirements in paragraph (d) of this section.
[5] By July 1, 2027, schools must meet the dietary specification for added sugars. Schools must meet the sodium limits by the dates specified in this chart. Discretionary sources of calories may be added to the meal pattern if within the dietary specifications.
(U.S. Department of Agriculture, 2024d)


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# Current Expectations for Schools



Follow existing NSLP and SBP regulations



Use approved recipes and procurement



Maintain compliance for reimbursement



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# Looking Ahead: 2025-2030 *DGAs*

Released as federal nutrition guidance

Not yet translated into school meal rules

Reinforce familiar nutrition principles

- Whole, nutrient-dense foods
- Limits on sodium and added sugars
- Dietary patterns that support health



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# Key Takeaways

- Current school meal standards are based on the 2020-25 DGAs
- USDA's 2024 final rule updates those standards gradually
- **No immediate changes are required**
- **School meals are already healthy and evidenced-based**



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Behavioral Economics or Choice Architecture

# Nudging Nutrition: Encouraging Healthy Food Choices in Schools

## Day One

# Encouraging Healthy Choices

Product Placement

Improve taste and quality

Increase variety

Write an appealing menu

Use positive communication

Maintain a pleasant environment



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# Make Healthy Food More Convenient

The easier it is to eat a food, the more likely we are to eat it!

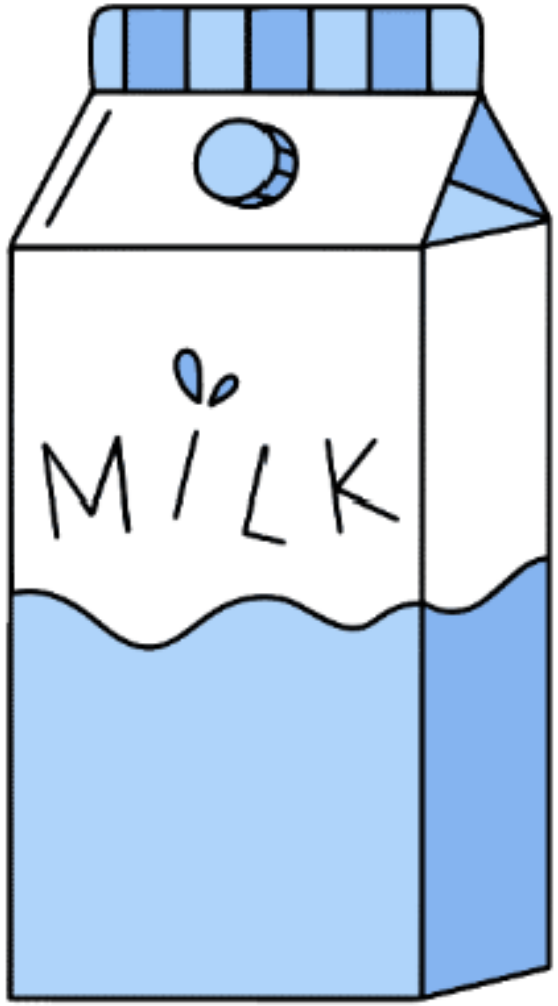
- Middle of display or refrigerator
- Put indulgent treats at the very top or bottom of shelves and in the back



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# Product Placement

Display white milk in the front of the cooler






Proprietary and Confidential

# Product Placement

Display whole fruit in attractive bowls





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# Product Placement

Display fruit in at least two locations






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# Improve Taste and Quality

| | |
|---|---|
| Offer | Offer sliced or cut fruit daily |
| Season | Season vegetables |
| Pair | Pair cut, raw veggies with a dip like hummus |
| Prepare | Prepare vegetables in batches |

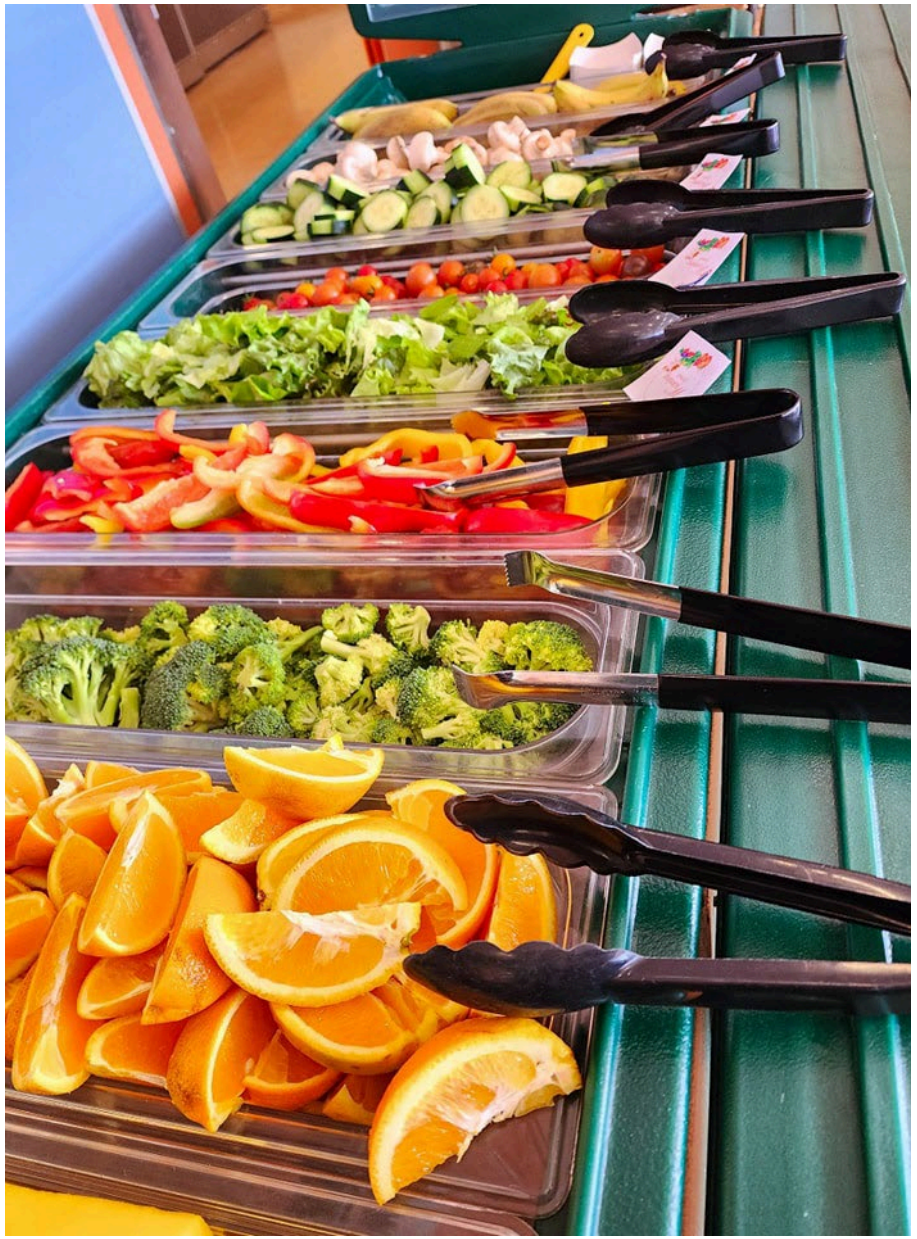





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# Increase Variety

- More satisfied when they can choose!
  - *When kids were given a choice* between carrots and celery, ATE 91% of the vegetables taken vs. 69% when carrots alone were offered





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# Write an Appealing Menu

- Printed Menu
- Menu Board
- Social Media Menus







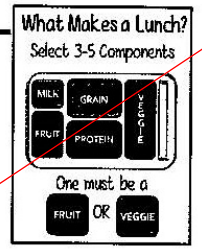


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# January 2019

Elementary Lunch

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| | **1** HAPPY NEW YEAR<br>No School | **2**<br>• Hot Dog w/ Bun<br>• Baked Beans<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | **3**<br>• Chicken Salad on Bun<br>• Carrot Sticks<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety | **4**<br>• Stuffed Crust Pizza<br>• Boiled Broccoli<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety |
| **7**<br>• Cinnamon French Toast<br>• Potato Smiles<br>• Assorted Fresh Fruit<br>• Milk Variety | **8**<br>• Beef Taco Meal w/ Tortilla Rounds<br>• Salsa<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety | **9**<br>• Ham & Cheese Wrap<br>• Dill Pickles<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | **10**<br>• Chicken Patty on Bun<br>• Boiled Carrots<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | **11**<br>• Cheese Pizza 4X6<br>• Boiled Broccoli<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety |
| **14**<br>• Fish Sticks, Alaska Pollock<br>• Breaded Mozzarella Cheesesticks<br>• Peas<br>• Assorted Fresh Fruit<br>• Milk Variety | **15**<br>• Beef Taco Meal w/ Tortilla Rounds<br>Salsa<br>• Kidney Beans<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety | **16**<br>• Egg, Cheese, Bacon on Bun<br>• Sweet Potato Bites<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | **17**<br>• Chicken Parmesan on Bun<br>• Green Beans<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | **18**<br>• The Max Round 5" Pizza<br>• Boiled Broccoli<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety |
| **21** MLK DAY<br>No School | **22**<br>• Beef Taco Meal w/ Tortilla Rounds<br>• Salsa<br>• Kidney Beans<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety | **23**<br>• Turkey & Cheese on Bun<br>• Carrot Sticks<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | **24**<br>• Chicken Alfredo<br>• Dinner Roll WG<br>• Green Beans<br>• Salad Bar<br>• Milk Variety | **25**<br>• TONY'S® 51% WG Bacon Scramble Pizza<br>• Boiled Broccoli<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety |
| **28**<br>• Cheeseburger on Bun<br>• Baked Beans<br>• Assorted Fresh Fruit<br>• Milk Variety | **29**<br>• Beef Taco Meal w/ Tortilla Rounds<br>• Salsa<br>• Assorted Fresh Fruit<br>• Salad Bar<br>• Milk Variety | **30**<br>• Pancake & Sausage Stick<br>• Potato Smiles<br>• Assorted Fruit Juice<br>• Salad Bar<br>• Milk Variety | **31**<br>• Popcorn Chicken<br>• Mashed Potatoes<br>• Corn<br>• Salad Bar<br>• Assorted Fresh Fruit<br>• Milk Variety | |




Boiled Carrots

Boiled Broccoli

Kidney Beans



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# Write an Appealing Menu

K-5 grade students like imaginative, playful names

- X-ray carrots
- Crazy carrot sticks
- Rainbow veggie pizza
- Sweet talking sweet potatoes

6-12 grade students like descriptive, sensory words

- Spiced butternut squash
- Fluffy mashed potatoes
- Warm baked apples



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# K-5 Menu with Smarter Lunchroom Names

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| **Oven Baked Chicken**<br>Colorful Curried Rice<br>Wild Broccoli Trees<br>Mandarin Oranges<br>Apple Crisp<br>Milk Choice | **Sloppy Joe on a Bun**<br>Crunchy Carrots and Celery with<br>Creamy Hummus Dip<br>Fresh Green Grapes<br>Baked Chips**<br>Milk Choice | **Loaded Pork Tacos**<br>Fiesta Refried Beans<br>Golden Corn<br>Sliced Pears<br>Chocolate Pudding**<br>Milk Choice | **Mighty Spaghetti & Meat Sauce**<br>Breadstick<br>Super Hero Salad<br>Sliced Peaches<br>Milk Choice | **Sweet and Sour Chicken and Rice Bowl**<br>Asian Medley Vegetables<br>Apple Slices<br>Strawberry Cup<br>Milk Choice |
| **Philly Chicken Sub**<br>Crunchy Carrot Sticks with Dip<br>French Fries<br>Fresh Melon Cup<br>Milk Choice | **Cheesy Omelet with Salsa**<br>Harvest Apple Muffin<br>Super Sweet Potato Tots<br>Canned Pears<br>Milk Choice | **Chicken Nuggets**<br>Creamy Butternutty Mac & Cheese<br>Vibrant Veggie Salad<br>Canned Peaches<br>Milk Choice | **Hamburger on a Bun**<br>Tangy Apple Cranberry Coleslaw<br>Baked Bean Bonanza<br>Toasted Potato Wedges<br>Fruit Cocktail<br>Milk Choice | **Scrumptious Stromboli with Marinara Sauce**<br>Groovy Green Beans<br>Citrus Fruit Cup<br>Oatmeal Cookie<br>Milk Choice |
| **Toasted Cheese Sandwich**<br>Mouth-Watering Minestrone Soup<br>Oven Roasted Potato Wedges<br>Pineapple Chunks<br>Milk Choice | **Creamy Chicken Alfredo**<br>Power Peas<br>Cherr-ific Salad<br>Vanilla Apples with Raisins<br>Milk Choice | **Turkey and Cheese Sub**<br>Sweet Cinnamon Squash<br>Crunchy Carrot Sticks and Dip<br>Canned Peaches<br>Baked Chips**<br>Milk Choice | **Pizza Sticks with Marinara Sauce**<br>Zesty Bean Salad<br>Razzy Cran-Grape Gelatin with Whipped Topping<br>Milk Choice | **Hearty Chicken Pot Pie**<br>Go-Pack-Go Broccoli<br>Strawberries and Bananas<br>Clementine<br>Milk Choice |

Notes:

** Indicates an "extra" item that does not contribute to the meal pattern

All grains are whole grain rich.

Milk Choice includes:
1% White
Skim White
Skim Chocolate

Culinary Ins

WISCONSIN TEAM NUTRITION

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

USDA is an equal opportunity provider and employer.

# 6-8 Menu with Smarter Lunchroom Names

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| **Oven Baked Chicken**<br>Colorful Curried Rice<br>Bright Green Broccoli<br>Mandarin Oranges<br>Apple Crisp<br>Milk Choice | **Sloppy Joe on a Bun**<br>Crunchy Carrots and Celery with<br>Creamy Hummus Dip<br>Fresh Green Grapes<br>Baked Chips**<br>Milk Choice | **Loaded Pork Tacos**<br>Fiesta Refried Beans<br>Golden Corn<br>Sliced Pears<br>Chocolate Pudding**<br>Milk Choice | **Savory Spaghetti & Meat Sauce**<br>Breadstick<br>Crisp Romaine Salad<br>Sliced Peaches<br>Milk Choice | **Sweet and Sour Chicken and Rice Bowl**<br>Asian Medley Vegetables<br>Apple Slices<br>Strawberry Cup<br>Milk Choice |
| **Philly Chicken Sub**<br>Crunchy Carrot Sticks with Dip<br>French Fries<br>Fresh Melon Cup<br>Milk Choice | **Cheesy Omelet with Salsa**<br>Harvest Apple Muffin<br>Tasty Sweet Potato Tots<br>Canned Pears<br>Milk Choice | **Chicken Nuggets**<br>Creamy Butternutty Mac & Cheese<br>Garden Fresh Salad<br>Canned Peaches<br>Milk Choice | **Hamburger on a Bun**<br>Tangy Apple Cranberry Coleslaw<br>Cowboy Beans<br>Toasted Potato Wedges<br>Fruit Cocktail<br>Milk Choice | **Scrumptious Stromboli with Marinara Sauce**<br>Great Green Beans<br>Citrus Fruit Cup<br>Oatmeal Cookie<br>Milk Choice |
| **Toasted Cheese Sandwich**<br>Mouth-Watering Minestrone Soup<br>Oven Roasted Potato Wedges<br>Pineapple Chunks<br>Milk Choice | **Creamy Chicken Alfredo**<br>Vibrant Green Peas<br>Cherr-ific Salad<br>Vanilla Apples with Raisins<br>Milk Choice | **Turkey and Cheese Sub**<br>Sweet Cinnamon Squash<br>Crunchy Carrot Sticks and Dip<br>Canned Peaches<br>Baked Chips**<br>Milk Choice | **Pizza Sticks with Marinara Sauce**<br>Italian Bean Salad<br>Razzy Cran-Grape Gelatin with Whipped Topping<br>Milk Choice | **Hearty Chicken Pot Pie**<br>Go-Pack-Go Broccoli<br>Strawberries and Bananas<br>Clementine<br>Milk Choice |

Notes:

** Indicates an "extra" item that does not contribute to the meal pattern

All grains are whole grain rich.

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Skim White
Skim Chocolate

Culinary Ins

WISCONSIN TEAM NUTRITION

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# Use Positive Communication



GREETING



SERVING



CASH REGISTER



SPECIAL REQUESTS



CONFLICT



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# Use Suggestive Selling

- Attitudes are contagious!
- Signs and verbal prompts influence us to see and desire products
- Peer pressure

**Fruit comes with your meal!**

**Take an apple for later!**

**Would you like some salad with that pizza?**

**Try today's special! It's delicious!**



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# Maintain a Pleasant Environment

- Attractive dining room
- Branded dining room
- Easy to read menu board
- Cleaning supplies not visible during service
- Recycling/trash bins are away from dining students



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# Warrick County School Corporation (Indiana)



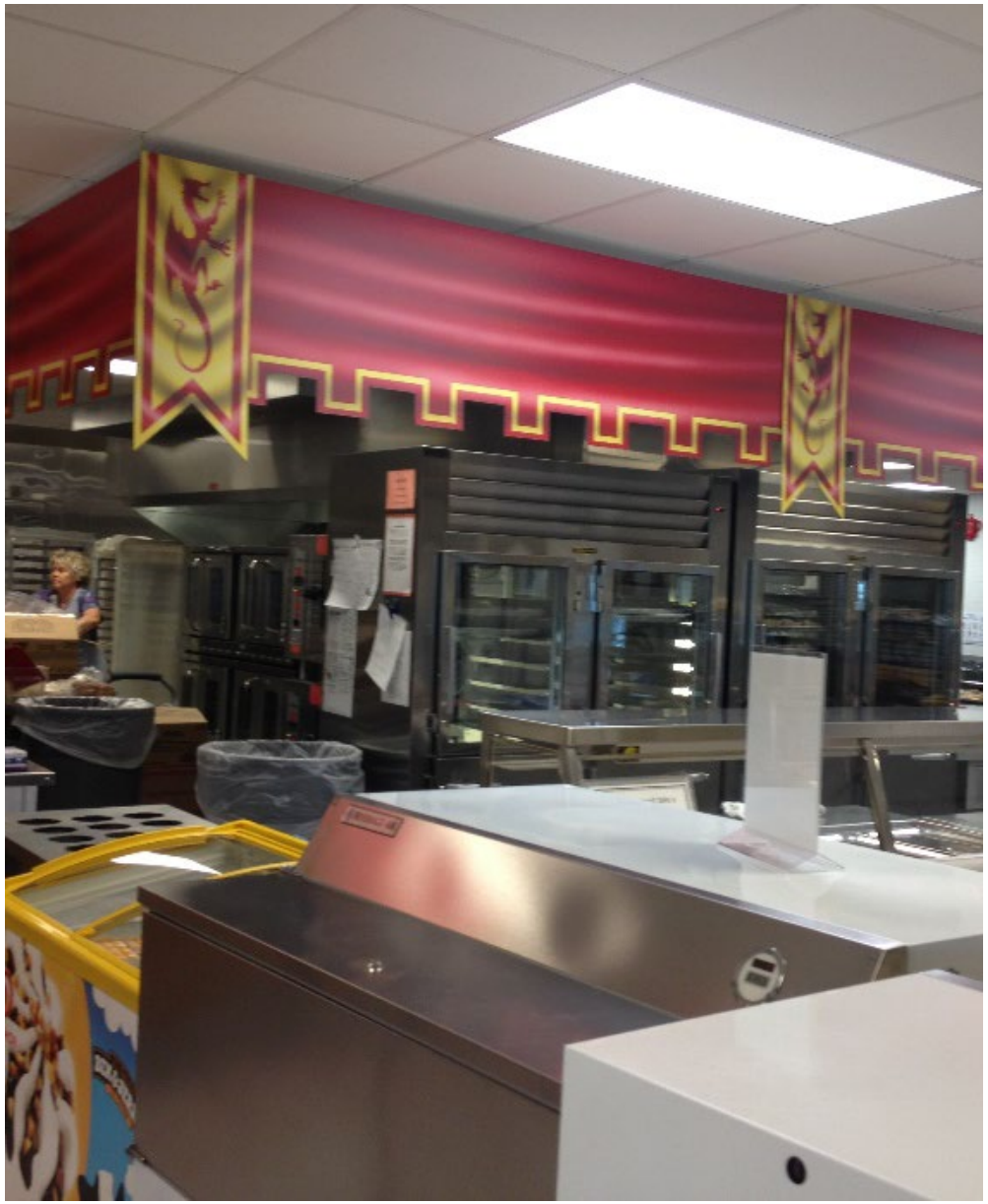





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# Warrick County School Corporation (Indiana)







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Culinary Institute of America

# Pulses: Dried Beans, Peas, & Lentils

## Day Two

# What are Pulses?

- **Pulses** are a specific type of legume
  - **Legumes** are one of the largest families of flowering plants
  - Thousands of species worldwide: ~19,000-20,000!
- Dry, edible seeds of the legume plant
  - Dried beans, dried peas, chickpeas, and lentils
- Peanuts, soybeans, and fresh peas are legumes, but not pulses
- Versatile, delicious flavor, **nutrient-dense**
- Packed with vitamins + minerals, complex carbohydrates, dietary fiber, plant-based protein, low in fat





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# Vegetable, Meat/Meat Alternate, or Both?

- **Both** – they fit into two USDA food groups and may be credited as either a:
  - Vegetable (beans, peas, and lentils subgroup)
  - Meat/meat alternate
- May only be credited toward one component per meal, not simultaneously
- In NSLP can be counted toward the weekly beans, peas, and lentils vegetable subgroup requirement





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# Vegetable Subgroups for NSLP

**Fresh, frozen, or canned**

## DARK GREEN

- Arugula
- Beet greens
- Bok choy
- Broccoli
- Broccoli rabe (rapini)
- Broccolini
- Butterhead lettuce
- (Boston, Bibb)
- Chicory
- Cilantro
- Collard greens
- Endive
- Escarole
- Fiddle heads
- Grape leaves
- Kale
- Mesclun
- Mustard greens
- Parsley
- Spinach
- Swiss chard
- Red leaf lettuce
- Romaine lettuce
- Turnip greens
- Watercress

## RED/ORANGE

- Bell peppers (red, orange)
- Carrots, orange
- Cherry peppers
- Orange peppers
- Pimientos
- Pumpkin
- Red chili peppers
- Red peppers
- Salsa (100% vegetables)
- Spaghetti squash
- Sweet potatoes/yams
- Tomatoes
- Tomato juice
- Winter squash (acorn, butternut, Hubbard)

## LEGUMES

- Black beans
- Black-eyed peas (mature, dry)
- Cowpeas
- Edamame
- Fava beans
- Garbanzo beans (chickpeas)
- Great Northern beans
- Kidney beans
- Lentils
- Lima beans (mature, dry)
- Mung beans
- Navy beans
- Pink Beans
- Pinto beans
- Red beans
- Refried beans
- Soy beans (mature, dry)
- Split peas
- White beans

***Does not include immature (fresh) beans or peas**

## STARCHY

- Black-eyed peas, fresh (not dry)
- Corn
- Cassava (yucca)
- Cowpeas, fresh (not dry)
- Field peas, fresh (not dry)
- Green bananas
- Green peas
- Hominy, whole (canned, drained)
- Jicama
- Lima beans, green (not dry)
- Parsnips
- Pigeon peas, fresh (not dry)
- Plantains
- Potatoes
- Poi
- Taro (malanga)
- Water chestnuts
- Yautia (tannier)

## OTHER

- Artichokes
- Asparagus
- Avocado
- Bamboo shoots
- Bean sprouts, cooked only (for food safety)
- Beans, green/yellow
- Beets
- Breadfruit
- Brussel sprouts
- Cabbage (green, red, napa)
- Cactus (nopales)
- Cauliflower
- Carrots, rainbow
- Celery
- Chayote (mirliton)
- Chives
- Cucumbers
- Daikon
- Eggplant
- Garlic
- Iceberg lettuce
- Mixed greens lettuce
- Mixed vegetables
- Mushrooms
- Okra
- Olives
- Onion
- Pepperoncini
- Peppers (green, sweet bell, green chilies, jalapeno, purple, yellow)
- Pickles
- Radishes
- Sauerkraut
- Snap/Snow peas
- Spaghetti squash
- Tomatillos
- Zucchini

Beans, Peas, and Lentils Subgroup


TEXAS DEPARTMENT OF AGRICULTURE
COMMISSIONER SID MILLER

Fraud Hotline: 1-866-5-FRAUD-4 or 1-866-537-2834 | P.O. Box 12847 | Austin, TX 78711
Toll Free: (877) TEX-MEAL | For the hearing impaired: (800) 735-2989 (TTY)

Food and Nutrition Division
Nutrition Assistance Programs

This product was funded by USDA.
This institution is an equal opportunity provider.

Updated 5/28/2024
www.SquareMeals.org

# Health Benefits

- Blood Pressure Control
- Cancer Risk Reduction
- Energy Production
- Heart Disease Risk Reduction
- Improves Digestion
- Weight Management
- Kidney Health





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# Nutrients

- Dietary Fiber
- Folate
- Plant-based Iron
- Phosphorus
- Potassium
- Plant-based protein
- Healthy fat
- Zinc





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# Versatility in School Meals



## Side salads

Tuscan White Bean Salad



## Salad toppers

Moroccan Crispy Roasted Chickpeas



## Vegetable side dish

Red Beans & Rice Burke County School Nutrition



## Plant-based main dish

Asian-Style Sweet & Spicy Veggie Burger



## Breakfast

Huevos Rancheros



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# Purchasing Forms

- Canned
- Dried
- Dehydrated
- Frozen-IQF (Individually Quick Frozen)






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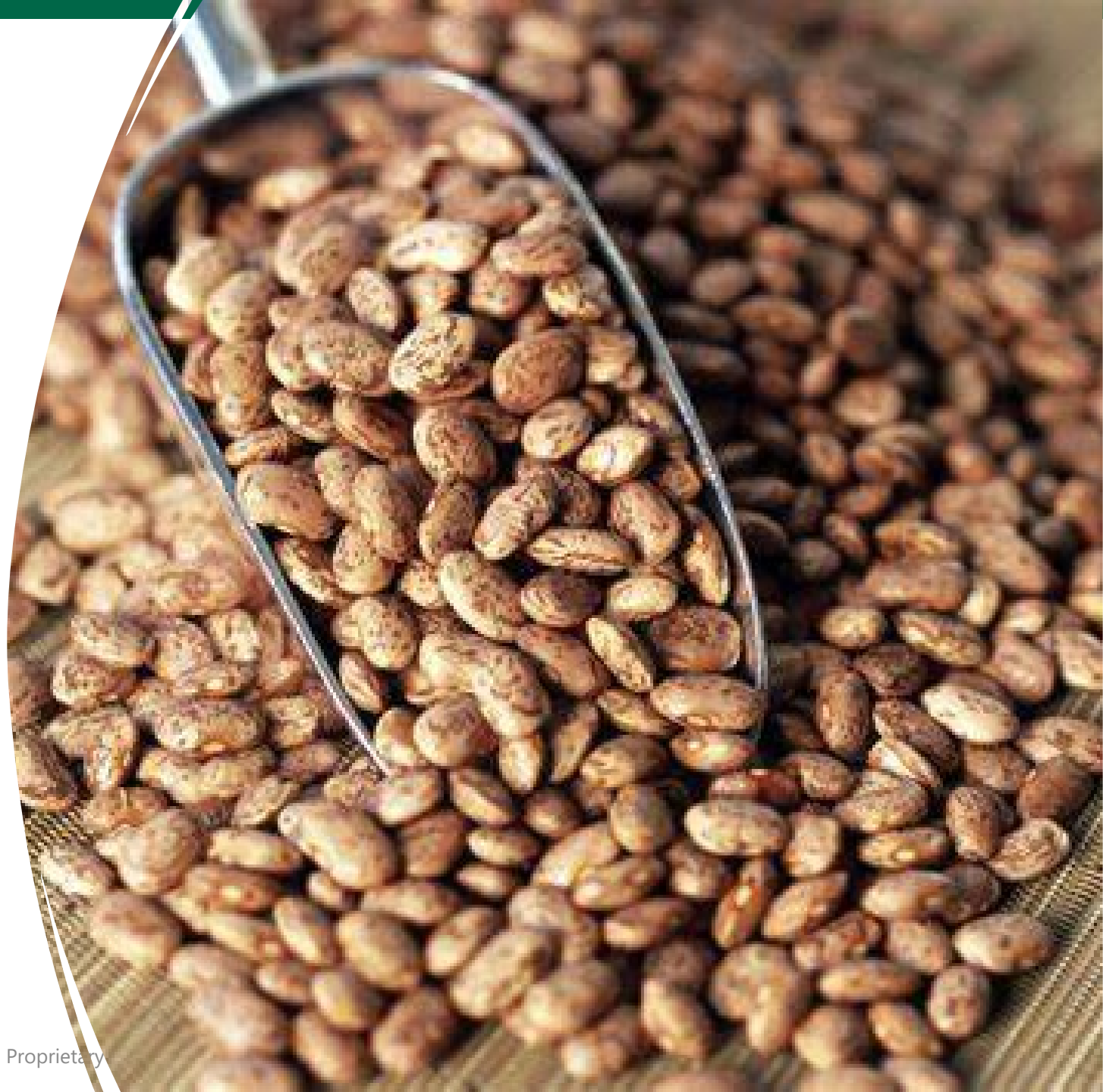
# Beans, Peas, & Lentils:

## ID Challenge



# Pinto Bean

- Light brown color
- Creamy texture
- Mild, earthy flavor
- Commonly used in Mexican cuisine and are great for refried beans





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# Small Red Bean

- Slightly smaller than kidney beans
- Robust flavor and firm texture
- Often used in soups, chili, and Creole dishes





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# Pink Bean

- Similar in size to pinto beans
- Have a smooth, delicate flavor
- Often used in Caribbean and Latin American dishes





Proprietary and C

# Red Kidney Bean

- Large, kidney-shaped
- Deep red color
- Slightly sweet flavor
- Commonly used in chili, soups, and salads

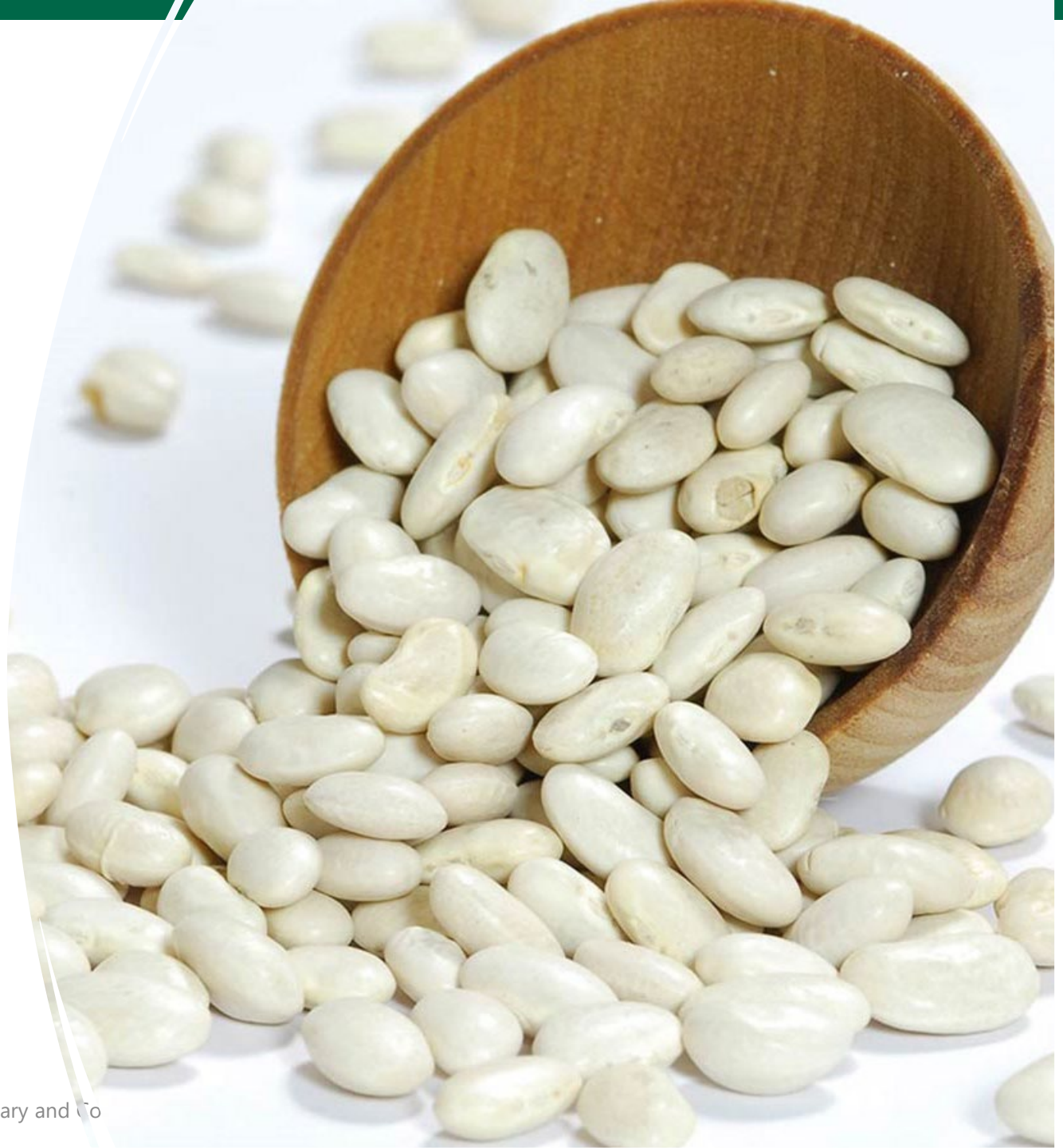




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# Great Northern Bean

- Medium-sized white beans
- Delicate flavor
- Smooth texture
- Great for casseroles, soups, and stews





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# Lima Bean

- Also known as butter beans
- Starchy, buttery texture
- Slightly sweet flavor
- Often used in Southern cuisine
- Small Lima Bean is slightly smaller than the larger Lima/Butter Bean





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# Navy Bean

- Small white beans
- Mild flavor
- Soft texture
- Often used in baked beans and soups





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# Black Bean

- Small, shiny black beans
- Dense, meaty texture
- Earthy flavor
- Commonly used in Latin American and Caribbean cuisines





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# Whole Green Pea

- Round, green peas
- Slightly sweet flavor
- Often used in soups and stews





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# Green Split Pea

- Dried, peeled, and split green peas
- Cook quickly
- Slightly sweet, earthy flavor
- Ideal for soups and purees





Proprietary and

# Yellow Split Pea

- Similar to green split peas
- Milder, sweeter flavor
- Often used in Indian dal and soups





Proprietary and

# Lentil

- Small, lens-shaped legumes
- Come in various colors, including green, brown, and red
- Mild, earthy flavor
- Cook quickly
- Perfect for soups and stews





Proprietary

# Cranberry Bean

- Also known as borlotti beans
- Beige with red speckles
- Creamy texture
- Slightly nutty flavor
- Commonly used in Italian and Portuguese dishes





Proprietary

# Chickpea/Garbanzo Bean

- Round, beige legumes
- Firm texture
- Nutty flavor
- They are the key ingredient in hummus and falafel





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# Black-Eyed Pea

- Cream-colored peas with a black spot
- Mild, earthy flavor
- Often used in Southern and African American cuisine





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Culinary Institute of America

# Farm to School

## Day Two

# Three Core Elements of Farm to School

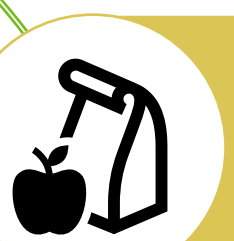
- Procurement
- Education
- School Garden





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# USDA Office of Community Food Systems



increase the availability of local foods in child nutrition programs



promote hands-on learning activities such as gardening, farm visits, and culinary classes



encourage the integration of food related education into regular, standards-based curriculum to help children make lifelong healthy eating choices



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# School Gardens



# Composting







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# Composting: **Vermiculture**







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# Container Gardening







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# Tower Gardens

- Grow more in less time
- Grow inside cafeteria
- Less mess
- Moveable



**Westside Elementary School**,
Warner Robins, Georgia



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# Greenhouses



**Howard Valentine Coffman Cove School**, Alaska



**Unicoi County Schools**, Tennessee



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# Hydroponics in Schools

Students at Amidon-Bowen Elementary in Washington, D.C. excited about the fast growth of their salad greens.



# Raising Cows

**Hagerstown Junior/Senior High School**,
Wayne County, Indiana





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# Chickens!







**Lincoln Elementary School**,
Olympia, WA



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# Spartanburg County School District 6

- District: 11,000 students, 15 schools
- Greenhouse
- 16 acres of crops
  - Broccoli
  - Cabbage
  - Cucumber
  - Sweet potatoes
  - Blueberries
  - Watermelon
  - Honey







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# Farm to School: **Food Education**



# Food Cultures



USDA
United States Department of Agriculture

BRINGING TRIBAL FOODS AND TRADITIONS INTO CAFETERIAS, CLASSROOMS, AND GARDENS

SCHOOLS AND NATIVE AMERICAN TRIBES across the country are incorporating traditional foods like bison, mesquite flour, wild rice, and ancient varieties of squash and corn into school meals and providing complementary educational activities that teach students about nutrition and Native American food traditions. There are more than 560 tribes recognized by the U.S. government, each with its own food and agricultural history and culture. Operating a farm to school program in a tribal setting or in a school with a high Native American population can help connect students to this history and expand markets for local and Native American farmers. This fact sheet explores how school and tribes are integrating traditional foods into child nutrition programs (CNPs), buying traditional foods locally, and incorporating multicultural nutrition education into classroom curriculum and hands-on lessons in school gardens.

Incorporating Traditional Foods into Menus

The United States Department of Agriculture (USDA) encourages Indian Tribal Organizations, along with all operators of CNPs, to serve traditional and locally grown and raised foods. **The Child Nutrition Programs and Traditional Foods memo (TA01-2015)** explains that traditional foods may be served in CNPs and includes examples of how several traditional foods may contribute towards reimbursable meals. The **USDA Food Buying Guide (FBG)** is a great place to start when creating menus that incorporate traditional food items since it includes crediting information and portion sizes needed to meet the nutritional standards for federal reimbursement.

**The Circle of Nations Boarding School located in Wahpeton, North Dakota, a charter under the Sisseton Wahpeton Oyate tribe, incorporates bison meat from the Intertribal Buffalo Council (ITBC) Sisseton-Wahpeton Oyate herd into lunch meals. Bison meat is substituted for ground beef in items such as chili and spaghetti sauce. In addition, food from the school garden is served daily on the salad bar. Lise Erdrich, School Health Coordinator, says that the students rated her salsa verde recipe, made with traditional green tomatillos, "better than guacamole!"**

**Meat from domesticated and wild game animals, including many traditional foods like bison and venison, may be served in child nutrition programs.**

*For information about serving meat, see the memo.* **Procuring Local Meat, Poultry, Game, and Eggs for Child Nutrition Programs (SP01 CACFP01 SFSP01-2016).**

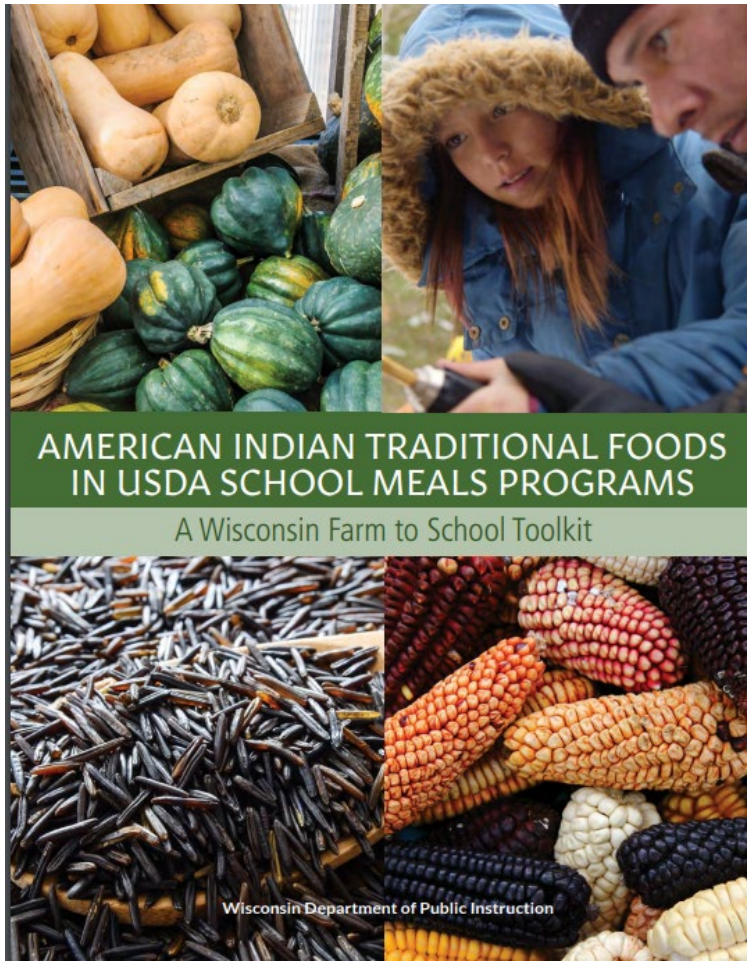
While the FBG provides a list of products commonly served in CNPs, it is not comprehensive. If a food is served as part of a reimbursable meal, but not listed in the FBG, the yield information of a similar food or an in-house yield may be used to determine the contribution towards meal pattern requirements.

Since traditional foods may provide a different nutrient yield than the substitutes listed in the FBG, it is important to pay attention to preparation techniques and the nutritional content of the foods being substituted.

OFFICE of COMMUNITY FOOD SYSTEMS

www.fns.usda.gov/cfs/tribal-foods



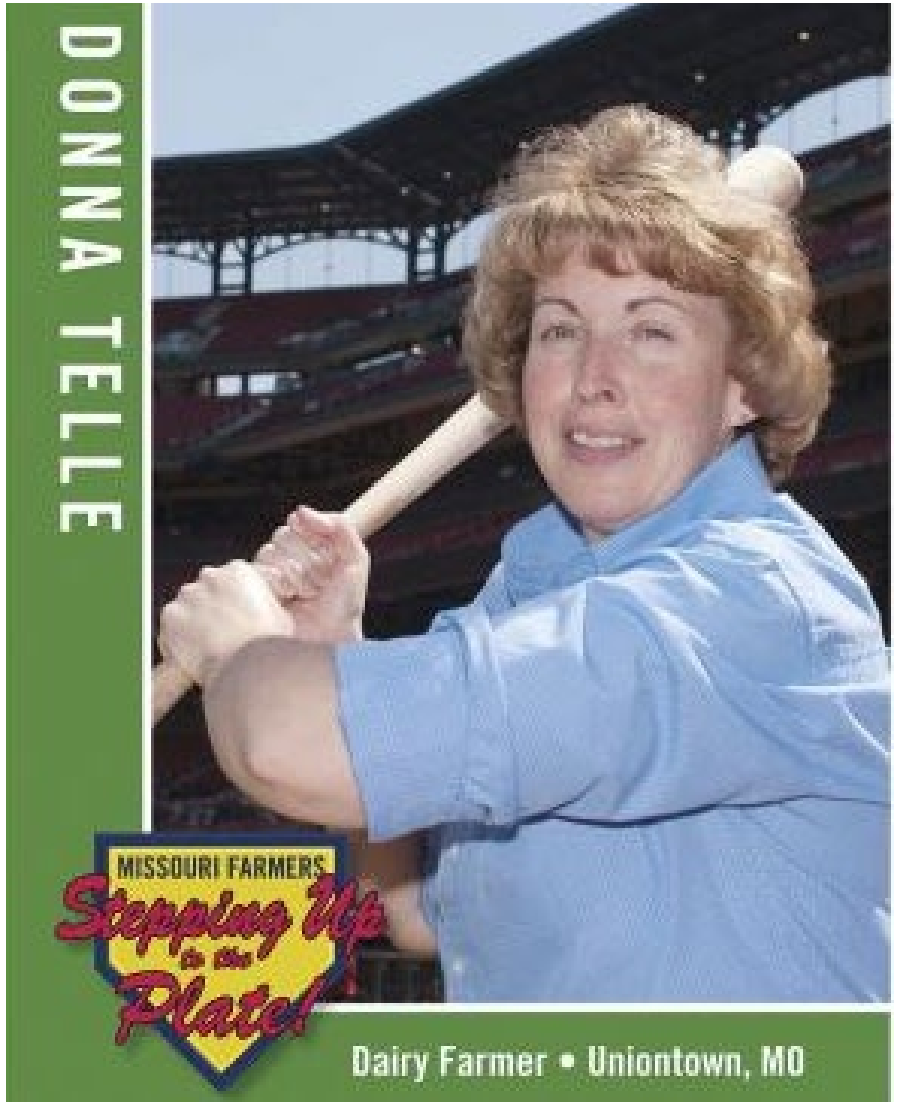



https://dpi.wi.gov/news/dpi-connected/traditional-foods-wisconsin



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# Farmer Trading Cards




"We care about continuing the tradition of family farming while producing nutrient-rich milk."

| DONNA TELLE | |
|---|---|
| Raises: | Holstein Dairy Cattle |
| Location: | Uniontown, Missouri |
| Farming for: | 27 years, a 5th generation farmer (her sons are 6th generation!) |
| Hobbies: | FFA Alumni, Perryville Pirate Athletic Club |

Meet other farmers and register to win the "Ultimate At-Home Tailgate" at *FarmersFeedUs.org*

Missouri Farmers Feed US



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# Eat the Alphabet









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# Cooking Classes








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# Cooking Clubs: **Cookingwithkids.org**

- Cooking with Kids educates and empowers children and families to make healthy food choices through hands-on nutrition education with fresh, affordable foods.
  - How to videos
  - Cooking lessons
  - Cafeteria resources
  - Tasting Lessons

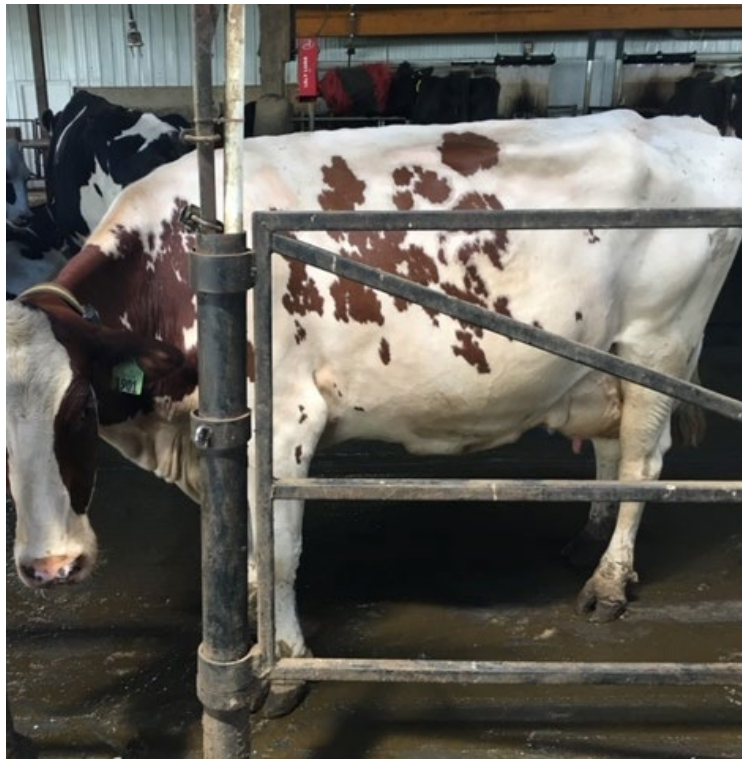





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# Field Trips









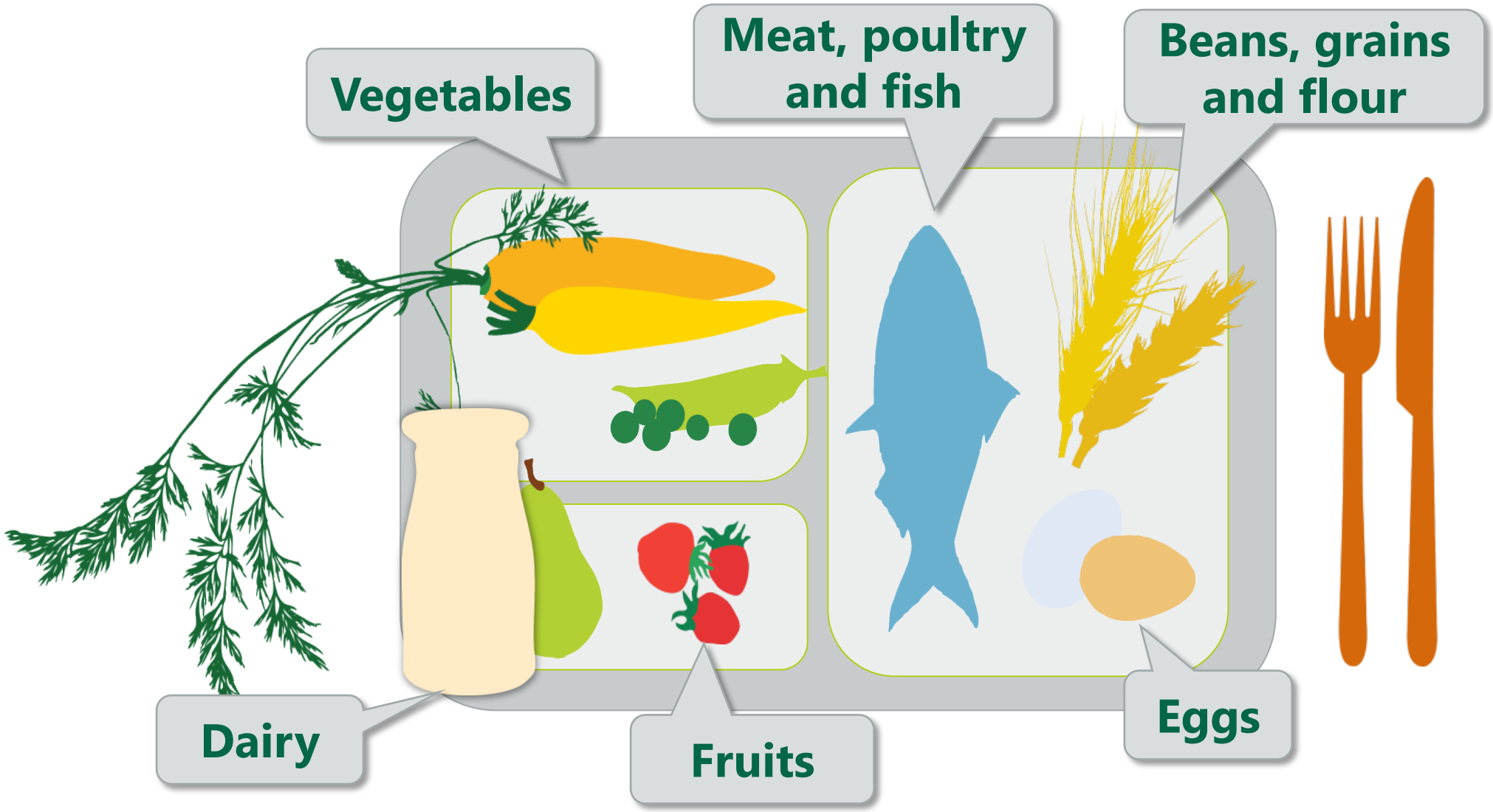

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# Farm-to-School Procurement





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# Students Benefit

- Fruit and vegetable consumption
- Food choices
- Academic achievement
- Food education






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# Benefits of Buying Local

Supporting the local economy and local farms

Building partnerships between the school system and community

Lower transportation costs

Fulfilling student, parent and/or teacher requests for local food





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# Small Steps

**Asking**

- Asking your current vendor to sell local farm products

**Planning**

- Planning menus around seasonal availability of local products

**Buying and highlighting**

- Buying and highlighting only one or two local products each month





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# Small Steps

**Host**

- Hosting one or two local food meals or events each school year (i.e. Indiana Food Day)

**Begin**

- Beginning by serving local foods on a limited or pilot basis, such as serving at only one school





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# Small Steps

**Begin**

- Begin with one item – maybe lettuce

**Look**

- Look for a product unique to your area

**Create**

- Create excitement for that one item

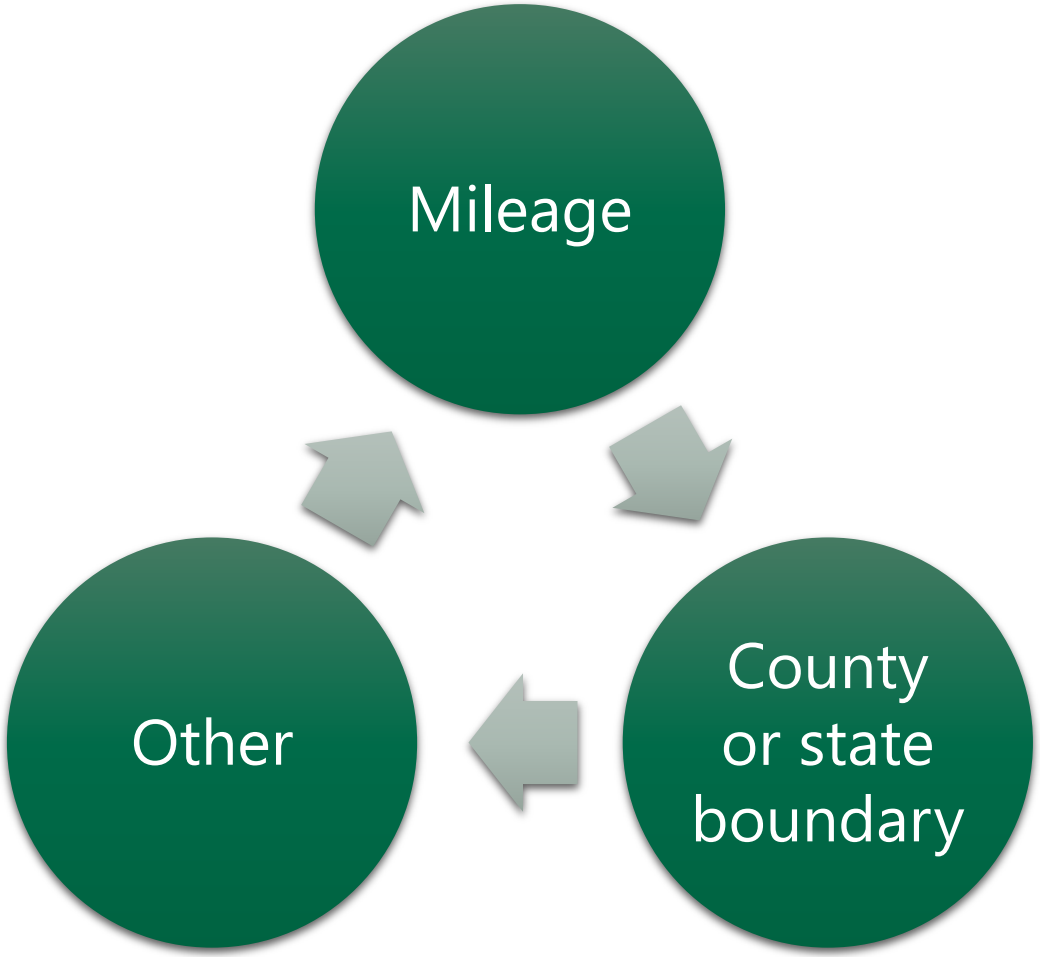




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# Geographic Preference

How do we define local?







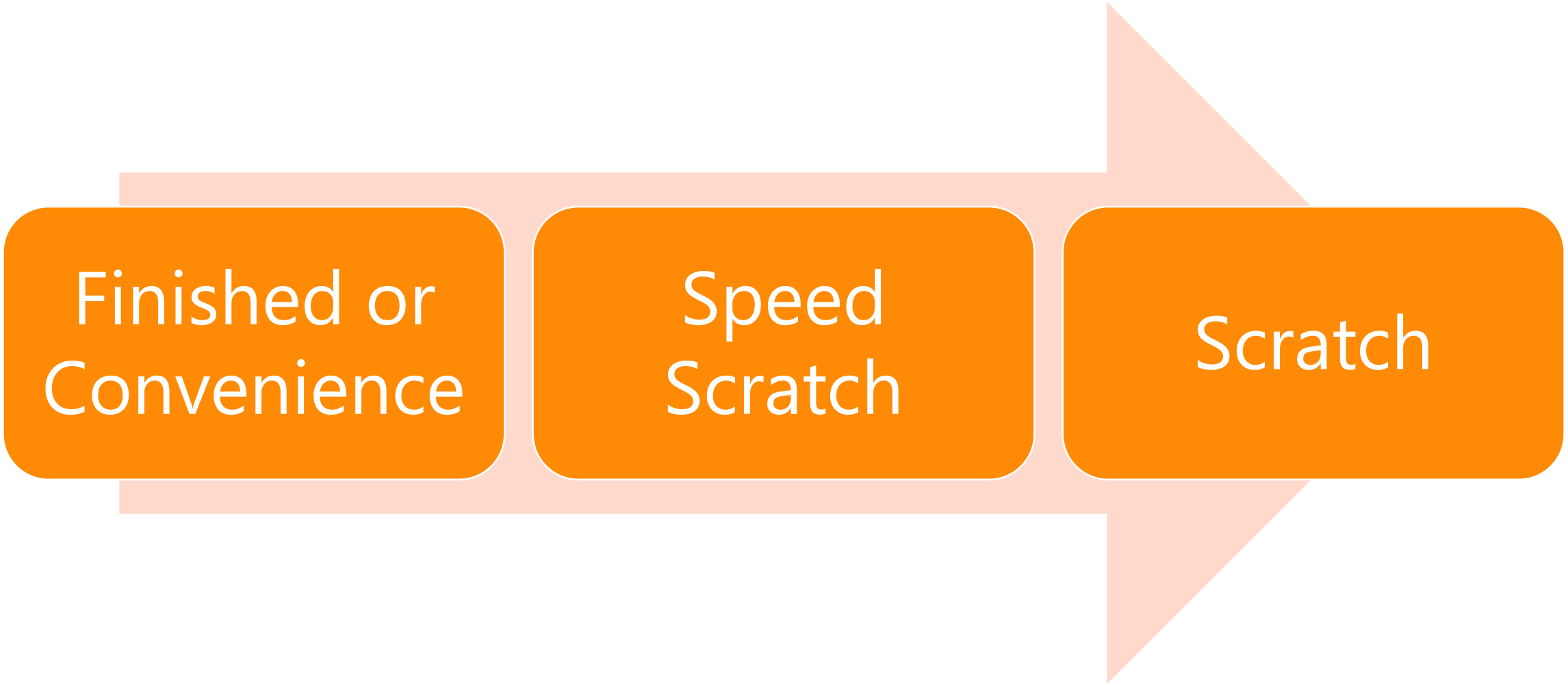

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# Ingredient Versatility & Speed Scratch in School Meals

## Day Three

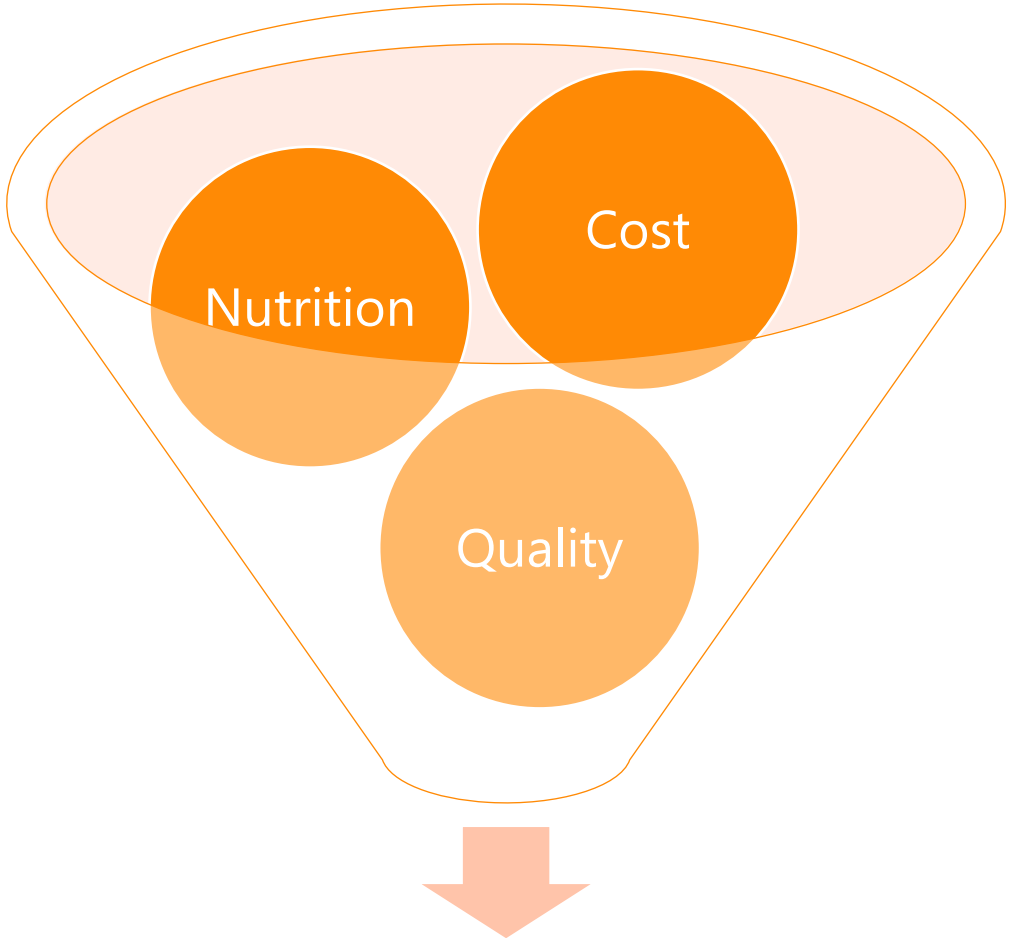
# Types of Meal Preparation






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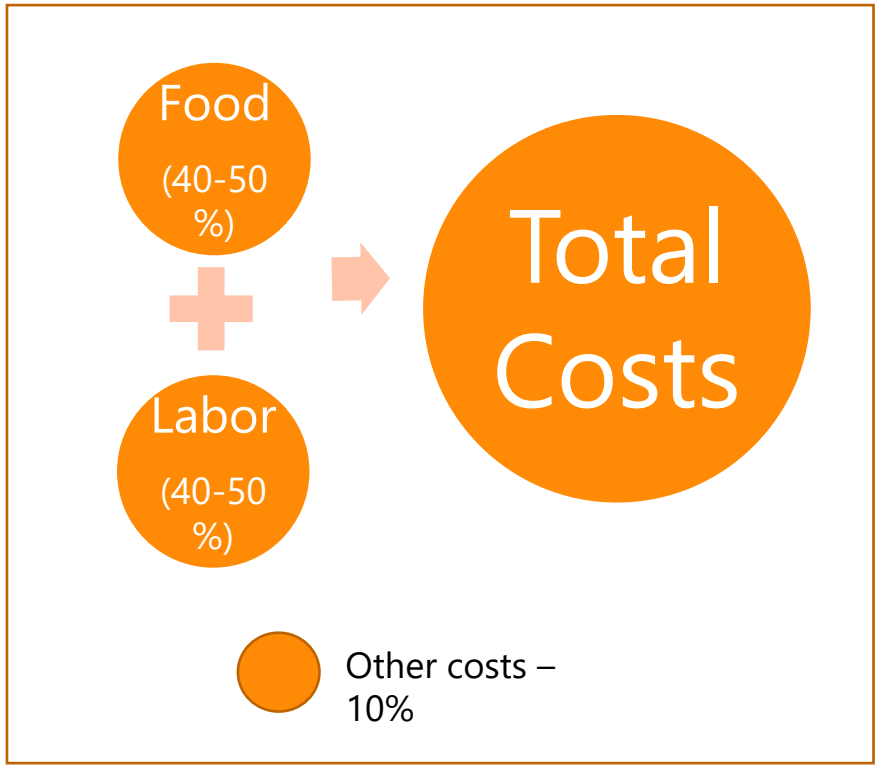
# Scratch or Convenience?

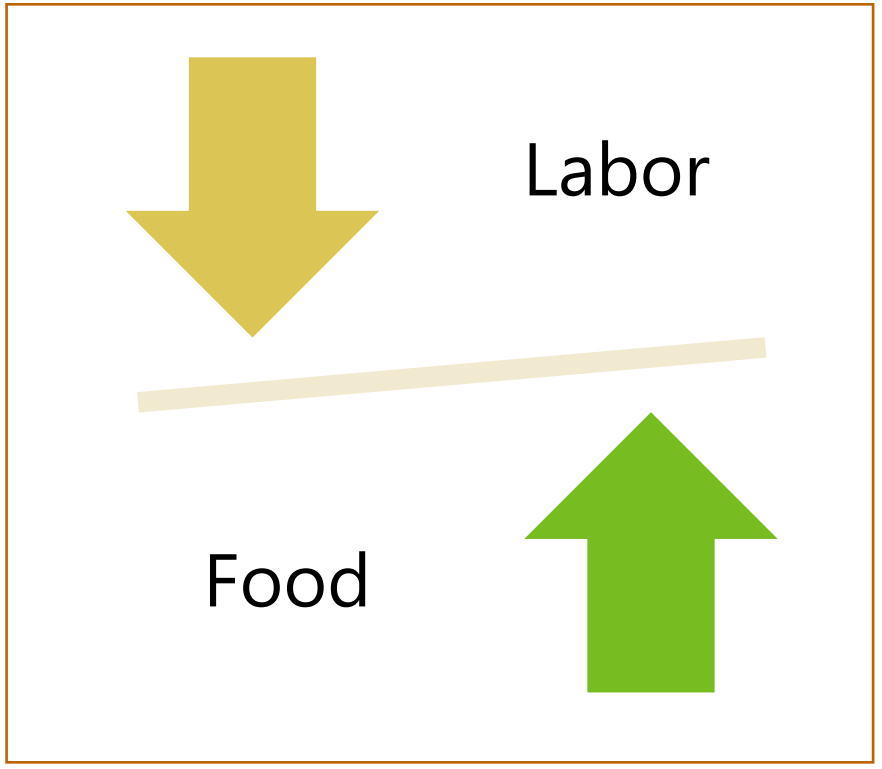





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# The Economics of School Food Operations






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# Sodium






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# Quality






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# Scratch Cooking

- Uses all ingredients in the most basic form
- ALL cooking and assembly takes place on site





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# Advantages of Scratch Cooking

| | | |
|---|---|---|
| Ingredient control | Provides maximum variety and creativity in meal preparation | Control ingredients based on nutrition concerns |
| Fewer additives and preservatives | Usually less waste in packaging | Uses quality fresh ingredients |
| Lower ingredient costs | Increased sales | Flexibility with addressing allergy concerns |



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# Disadvantages of Scratch Cooking

Increases planning time

Increased labor

Requires more skill





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# Finished or Convenience Cooking

Heat and serve





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# Advantages of Finished or Convenience

- Convenient
- Time saving
- Energy saving
- Fear of cooking success is minimized





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# Disadvantages of Finished or Convenience

More expensive than the other meal preparation strategies

Highest sodium/fat content than the other meal preparation strategies

Flavor and appearance may not compare as well as the other meal preparation strategies

More additives and preservatives than all other meal preparation strategies

More packaging than the other meal preparation strategies






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# Speed Scratch

Uses value-added or minimally prepared ingredients

MOST assembly takes place on site






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# Advantages of Speed Scratch

Saves time and energy by providing short cuts

Adds variety and creativity to recipes

Usually less expensive than convenience foods

Easier for inexperienced cooks to prepare

Uses resources of food companies to improve ingredients

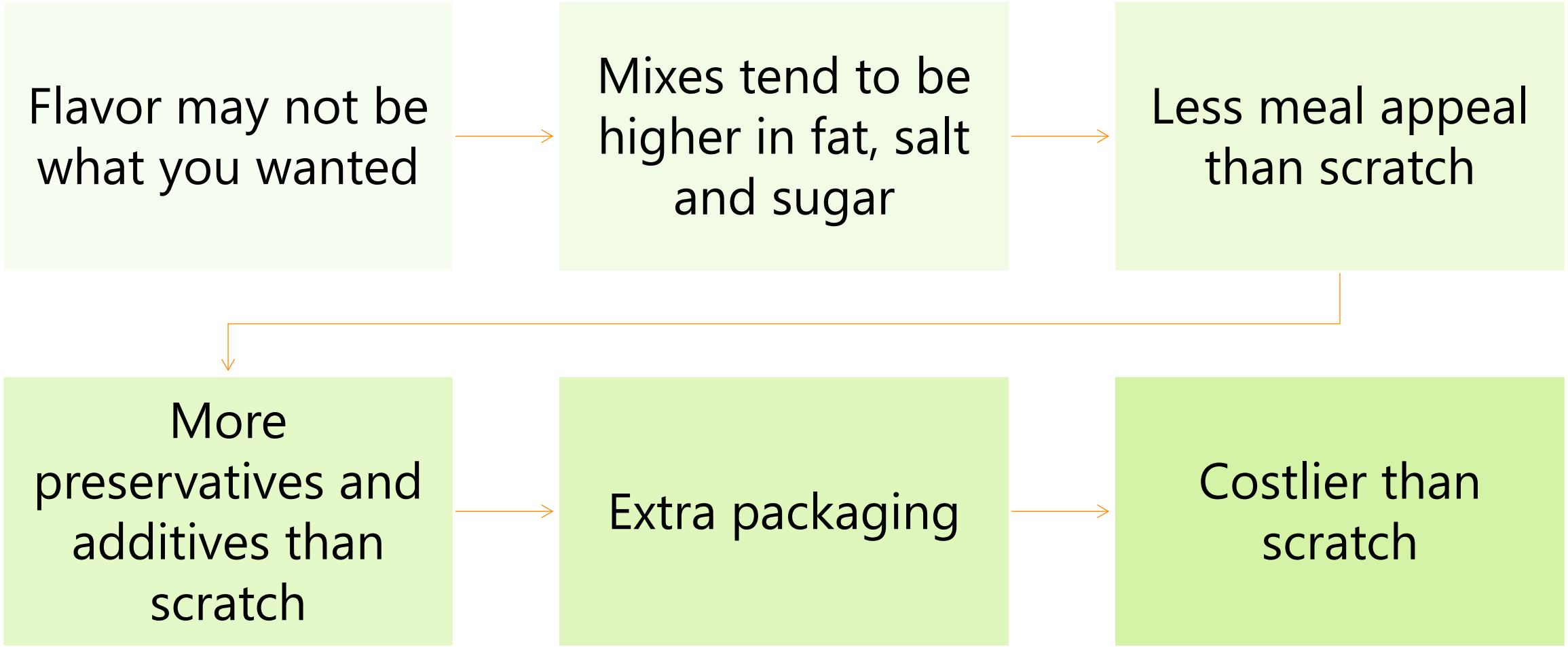
Consistent product

Less waste



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# Disadvantages of Speed Scratch






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# Sodium in Spaghetti Sauce

| Spaghetti sauce | Sodium in ½ cup |
|---|---|
| Classico | 350 mg |
| Prego | 420 mg |
| Ragu | 530 mg |
| Hunts | 610 mg |
| Made on-site | 40 mg |



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# Reducing Inventory

Control Costs

1

Streamline Inventory Management

2

Reduce Waste





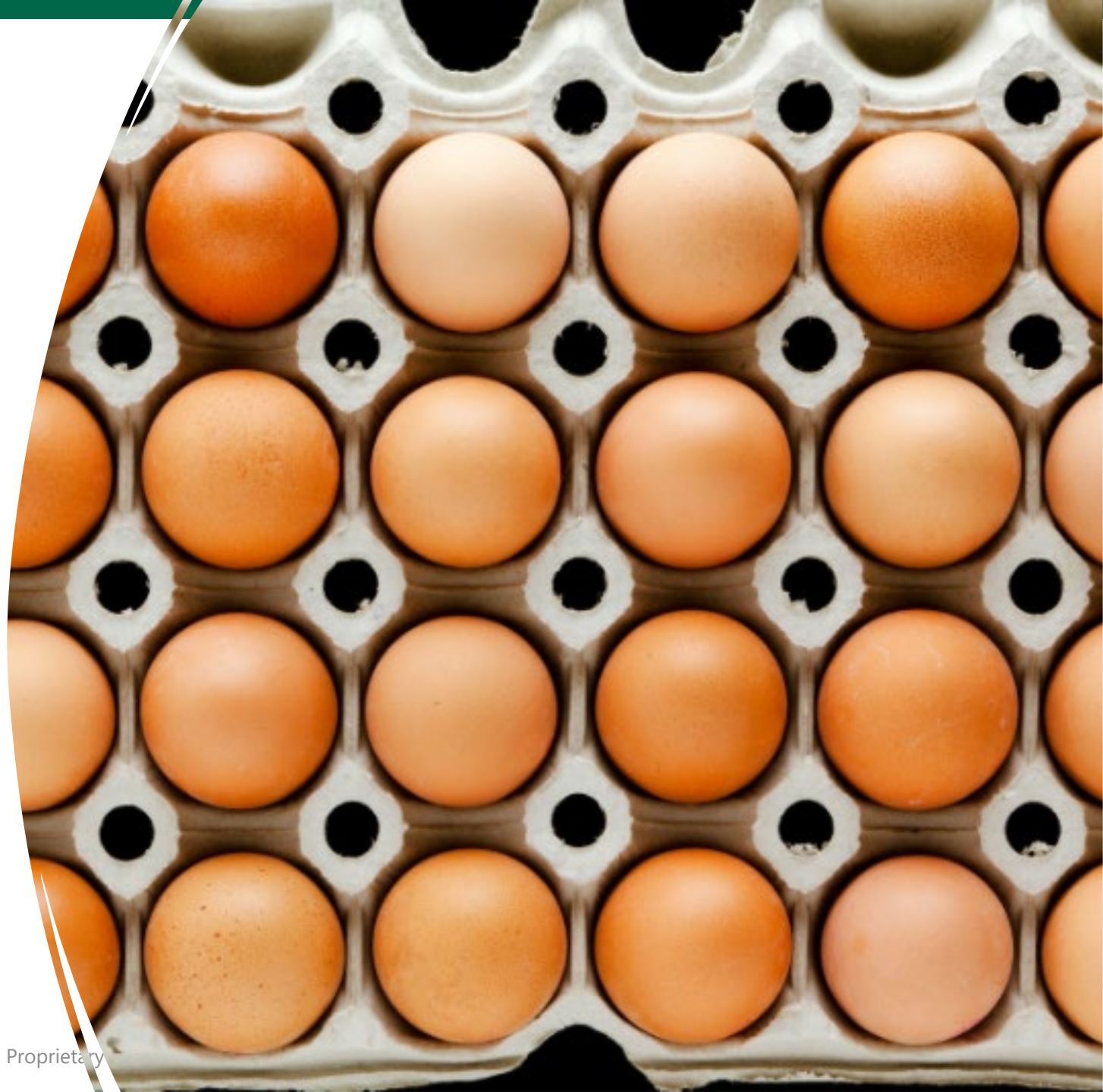

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# Core Ingredients

Whole ingredients

Less processed

No seasonings





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# Core…..and more!

- Menu item flexibility
- Customizable menu items
- Increase global flavors
- Work across grade levels

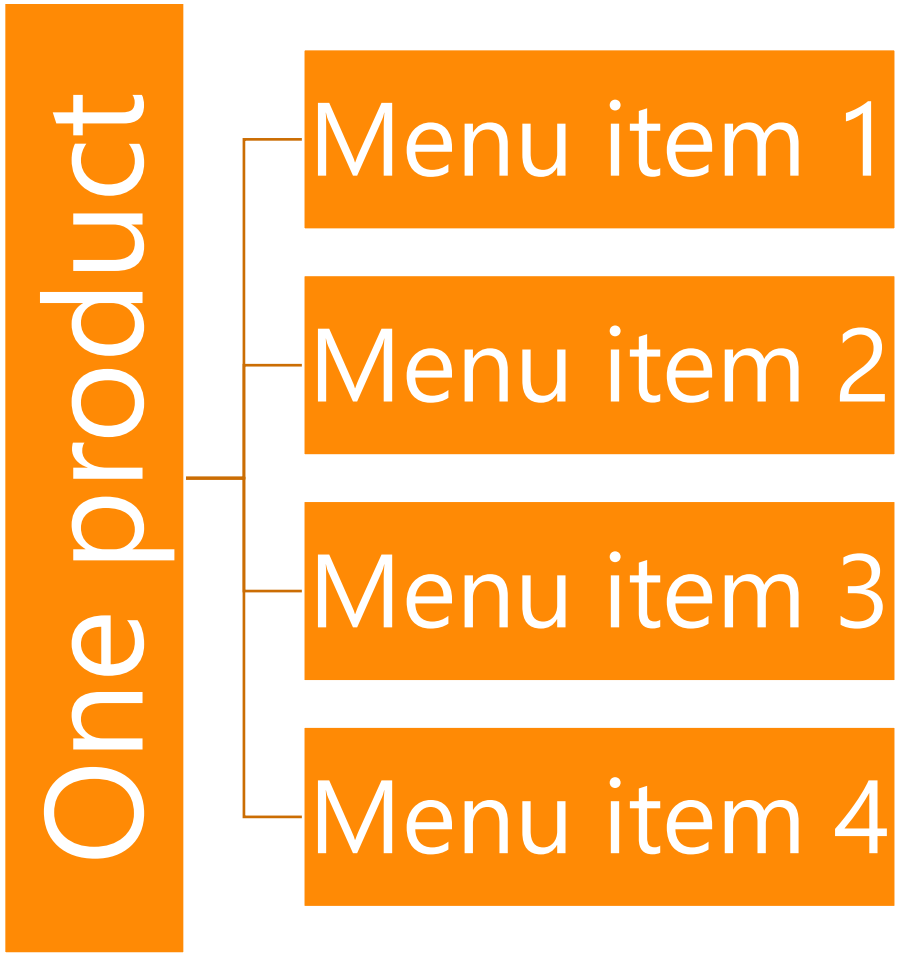




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# Minimize SKUs:

## Maximize Menus ***Cross-Utilization***






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# Cross-Utilization: **Chicken Breast**

**Chicken Breast**

- Shredded chicken
- Diced chicken
- Chicken strips
- Chicken tenders
- Whole chicken breast





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# Cross-Utilization: **Shredded Chicken**



**Shredded Chicken**



Chicken Chili



Pulled Chicken Taco



BBQ Pulled Chicken



Chicken Noodle Soup



Chicken Tetrazzini



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# Cross-Utilization: **Diced Chicken**



**Diced Chicken**



Chicken Pot Pie



Buffalo Chicken Tot Bake



Italian Chicken with Oregano and Lemon



Kung Pao Chicken with Sweet Peppers



Caribbean Chicken Sub



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# Cross-Utilization: **Chicken Strips**



**Chicken Strips**



Chicken Fajita Rice Bowl



Chicken Stir-fry



Cheesy Chicken Fajitas



Chicken Teriyaki



Chicken Curry Casserole



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# Enhance the Menu with Cross-Utilization

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| **Bean and Rice Burrito**<br>WG Tortilla Scoops**<br>Deluxe Refried Bean Dip**<br>Whole Kernel Corn<br>Fresh Kiwi Halves<br>Canned Peaches**<br>Choice of Milk | **Homestyle Spaghetti with Meat Sauce**<br>WW Sliced Bread**<br>Build Your Own Side Salad<br>Chilled Canned Pears<br>Choice of Milk | **Loaded Turkey Sub**<br>Chunky Chicken Noodle Soup<br>Build Your Own Side Salad<br>Assorted Fresh Melon Bowl<br>Choice of Milk | **Beef Shepherd's Pie**<br>Fresh-Baked WW Breadstick<br>Steamed Broccoli<br>Purple Grapes<br>Baked Apples<br>WW Sugar Cookie*<br>Choice of Milk | **Chicken Patty Sandwich**<br>Baked Beans<br>Oven Roasted Potato Wedges<br>Juicy Pineapple Tidbits<br>Orange Juice Cup**<br>Choice of Milk |
| **Toasted Cheese Sandwich**<br>Creamy Tomato Soup<br>Vibrant Green Peas<br>Banana<br>Apple Crisp<br>Choice of Milk | **Fiesta Chicken Fajitas**<br>Aztec Grain Salad*<br>Refried Beans<br>Shelled Edamame<br>Purple Grapes<br>Choice of Milk | **Homestyle Chili w/ WG Cornbread**<br>Savory WW Crackers<br>Crisp Romaine Salad with Chickpeas**<br>Fresh Pear<br>Pineapple Chunks**<br>Choice of Milk | **Turkey & Dressing Supreme**<br>Fresh-Baked WW Dinner Roll<br>Two Potato Mash<br>Carrot Sticks<br>Dried Wisconsin Cranberries<br>Orange Juice Cup**<br>Choice of Milk | **Chicken Nuggets**<br>Homestyle WW Biscuit<br>Three Bean Salad<br>Fresh Broccoli Spears<br>Mandarin Oranges<br>Choice of Milk |
| **French Toast Sticks**<br>w/Maple Syrup<br>Baked Sweet Potatoes & Apples<br>Fresh Celery Sticks<br>Orange Wedges<br>Choice of Milk | **Hot Ham, Broccoli, & Cheese Pita**<br>Crispy Veggie Dippers w/Ranch<br>Fresh Kiwi Halves<br>Banana**<br>Choice of Milk | **Honey Mustard Deli Wrap**<br>Macaroni & Cheese<br>Baked Beans<br>Fresh Jicama<br>Pineapple Chunks<br>Choice of Milk | **Roasted Turkey w/Gravy**<br>WW Dinner Roll*<br>Mediterranean Quinoa Salad<br>Fresh Romaine Salad<br>Carrots **<br>Applesauce Cup<br>Choice of Milk | **Pizza Sticks w/ Marinara Dipping Sauce**<br>Oven Roasted Potato Wedges<br>Assorted Fresh Melon Bowl<br>Choice of Milk |
| **Hearty Spanish Stew** w/Cheddar Topping**<br>Fresh Baked WW Breadstick<br>Crisp Vegetables w/Ranch<br>Baked Apples<br>Purple Grapes<br>Choice of Milk | **Black Bean Quesadilla**<br>Steamed Corn<br>Refried Beans<br>Chilled Canned Pears<br>Choice of Milk | **Country Smoked Turkey and Bean Soup**<br>w/Cheddar Topping<br>Build Your Own Side Salad<br>WW Cinnamon Roll<br>WW Dinner Roll*<br>Juicy Pineapple Tidbits<br>Choice of Milk | **All-American Chicken Wrap**<br>Build Your Own Side Salad<br>Fresh Celery Sticks w/Peanut Butter**<br>Assorted Fresh Melon Bowl<br>Choice of Milk | **Flame-Broiled Cheeseburger**<br>Sweet Potato Tots<br>Baked Beans<br>Fresh Mixed Fruit Cup<br>Choice of Milk |
| **Deluxe Taco Pie**<br>WG Cornbread<br>Whole Kernel Corn<br>Sweet Potato Sticks<br>Fresh Kiwi<br>Choice of Milk | **Hearty Beef Stew**<br>w/Cheddar Topping<br>Fresh-Baked WW Dinner Roll<br>Crisp Broccoli w/Hummus<br>Green Grapes<br>Pumpkin Bar<br>Choice of Milk | **Fish Tacos**<br>Cilantro-Lime Rice<br>Roasted Squash<br>Cucumber Slices**<br>Grapefruit<br>Choice of Milk | **Greek Chicken Salad**<br>WW Breadsticks<br>Confetti Soup<br>Green Pepper Slices**<br>w/Cucumber Dipping Sauce**<br>Orange<br>Choice of Milk | **Turkey Corn Puppies**<br>Oodles of Noodles**<br>Harvest Glazed Carrots<br>Sugar Snap Peas<br>Peaches<br>Canned Apricots**<br>Choice of Milk |



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# Cross-Utilization: **Cheese**



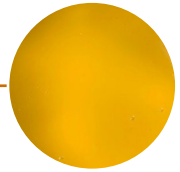
**Cheese**



Chicken Taco



Broccoli Mac and Cheese



Nacho Cheese Sauce



Beef Tamale Pie



Three Sisters Enchiladas



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# Cross-Utilization: **Beef Crumbles**



**Beef Crumbles**



Chili



Beef Shepherd's Pie



Spaghetti and Meat Sauce



Beef Tamale Pie



Spy Thai Beef



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# Cross-Utilization: **Diced Tomatoes**



**Diced Tomatoes**



Chili



Salsa



Spaghetti Sauce



Beef Tamale Pie



Enchilada Sauce



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# Cross-Utilization: **Frozen Carrots**



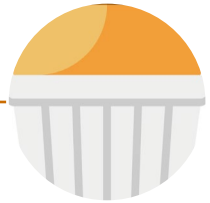
**Frozen Carrots**



Roasted Carrots



Honey Carrot Coins



Burke County Carrot Souffle



Carrot & Quinoa Muffins



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# Cross-Utilization: **Frozen Broccoli**



**Frozen Broccoli**



Cumin Roasted Broccoli



Creamy Broccoli Soup



Lemon Zest Broccoli



Broccoli Mac & Cheese



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# Cross-Utilization: **Frozen Corn**



**Frozen Corn**



Corn Pudding



Mexicali Corn



Corn Chowder with Thyme



Corn & Sorghum Salad



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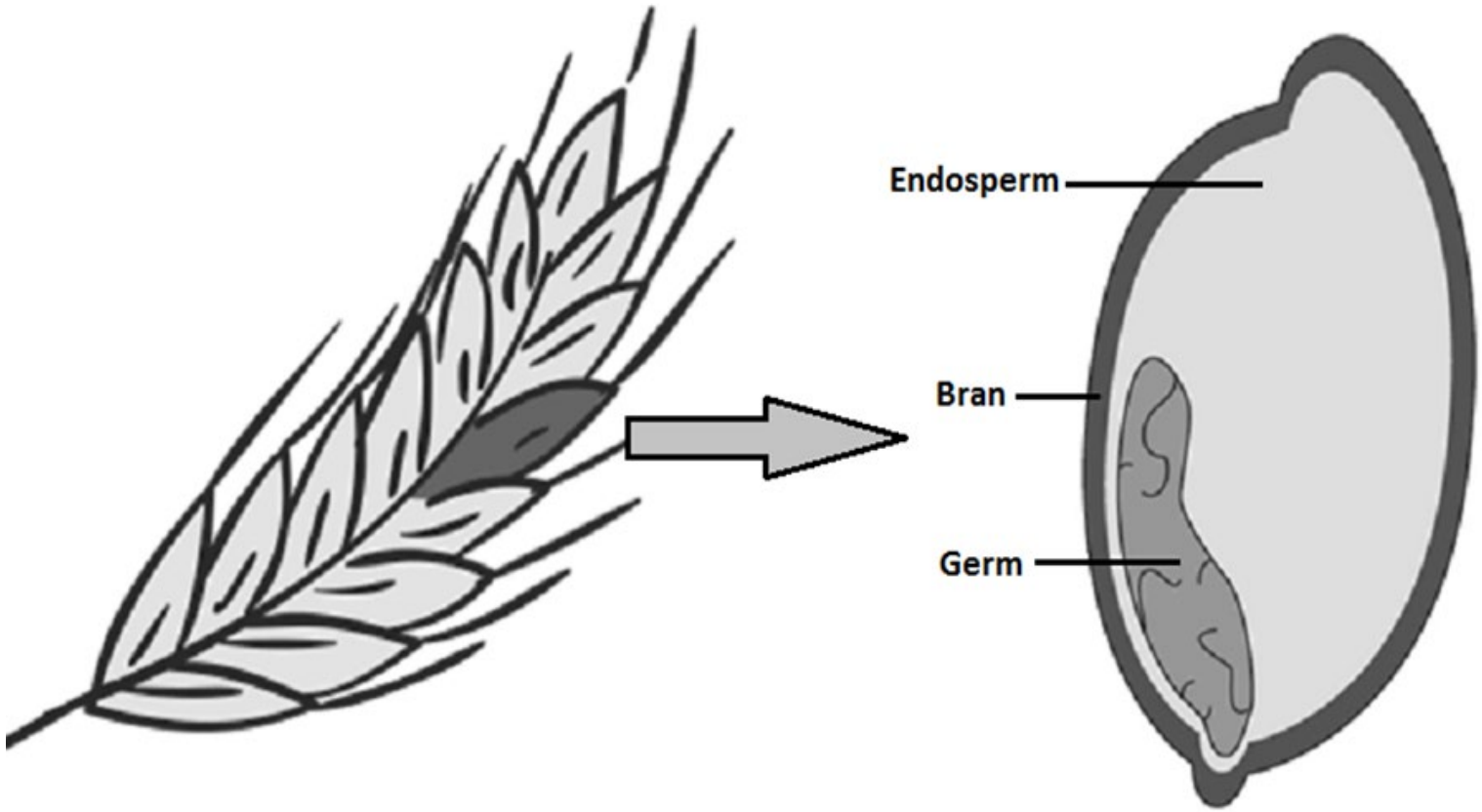
Culinary Institute of America

# Exploring Whole Grains

## Day 3

# What is an Intact Whole Grain?

- Grains that contain all three parts of the kernel – the **bran, germ, and endosperm** – in their original proportions
- These grains are unrefined and closely resemble their natural state






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# Parts of a Whole Grain

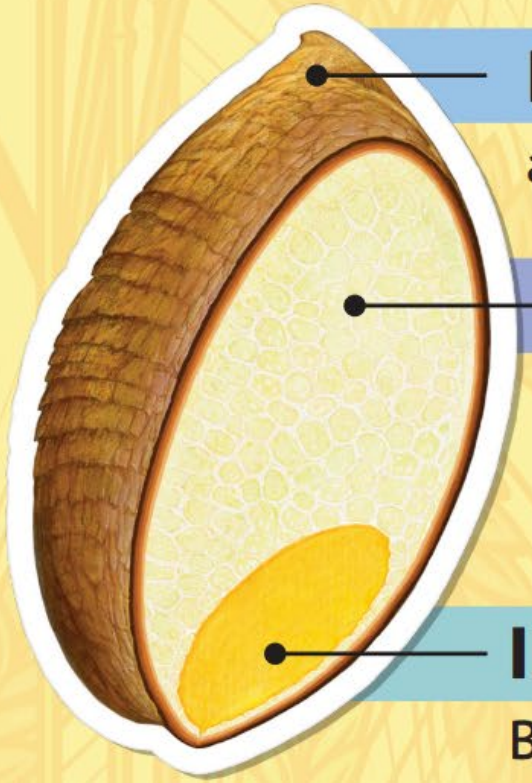
| | |
|---|---|
| **Bran** | The outer skin of the kernel that helps to protect the inner kernel, It contains **fiber**, important **antioxidants**, **iron**, **zinc**, **copper**, **magnesium**, **B vitamins**, and **phytonutrients**. |
| **Germ** | The embryo which, if fertilized by pollen, will sprout into a new plant. It contains **B vitamins**, **vitamin E**, **antioxidants**, **phytonutrients**, and **unsaturated fats**. |
| **Endosperm** | The germ's food supply, which, if the grain were allowed to grow would provide essential energy to the young plant. As the largest portion of the kernel, the endosperm contains **starchy carbohydrates**, **proteins**, and **small amounts of vitamins and minerals**. |



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# WHOLE GRAIN, WHOLE BENEFIT.

Eat whole grains for **vitamins**, **minerals**, and **fiber**.



## IN THE BRAN

antioxidants, B vitamins, fiber

## IN THE ENDOSPERM

starchy carbohydrates, proteins, small amounts of vitamins and minerals

## IN THE GERM

B vitamins, protein, minerals, healthy fats

Whole grains **help reduce** your risk of:

- **Heart Disease**
- **Diabetes**
- **Certain Cancers**



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# Types of Grains

| | |
|---|---|
| **Whole** | Contain all essential parts of the grain seed– the bran, germ and endosperm |
| **Whole Grain Rich** | ▪ Half (50%) of the grain is whole grain |
| **Refined** | ▪ A process that removes the bran and germ<br>▪ Milling removes dietary fiber, iron and many B vitamins |
| **Enriched** | ▪ The refined grain with the iron and B vitamins added back after processing |



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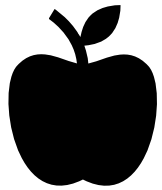
# Health Benefits of Whole Grains

1. Consuming whole grains as part of a healthy diet may **reduce the risk of heart disease**
2. Consuming whole grain foods that contain **fiber**, as part of an overall healthy diet, can support **healthy digestion**
3. Eating whole grains, as part of an overall healthy diet, may help with **weight management**
4. Eating grain products **fortified with folate** helps prevent **neural tube defects** when consumed as part of an overall healthy diet **before and during pregnancy**

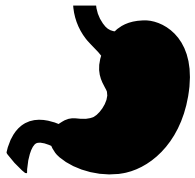


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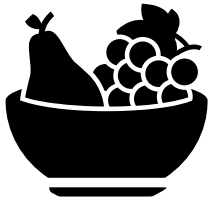
# Fiber and Health



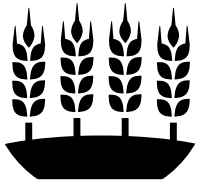
Recommended fiber intake: 14 grams per 1,000 calories



Of the under-consumed nutrients, calcium, potassium, **dietary fiber**, and vitamin D are considered **nutrients of public health concern** because low intakes are associated with health concerns



Low intakes of dietary fiber are due to low intakes of vegetables, fruits, and **whole grains**



Research indicates possible protective effects of dietary fiber against: colon cancer, heart disease, and diabetes



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# Soluble Fiber

Attracts water and turns to gel during digestion

Binds with cholesterol compounds transporting them out of the body

Sources

- Oat bran
- Barley
- Nuts
- Seeds
- Beans
- Lentils
- Some fruits and vegetables





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# Insoluble Fiber

Adds bulk to stool and helps food pass through digestion more quickly

Sources

- Wheat bran
- Whole grains
- Seeds
- Nuts
- Fruit and vegetable (peel)



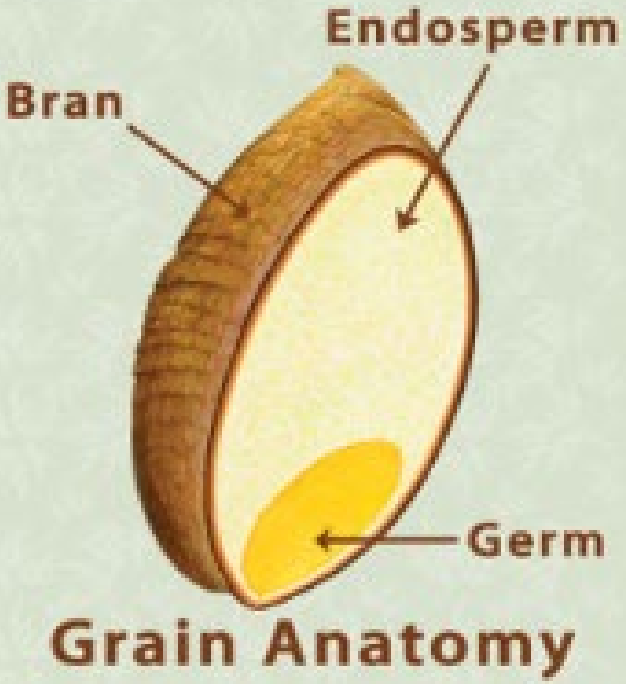


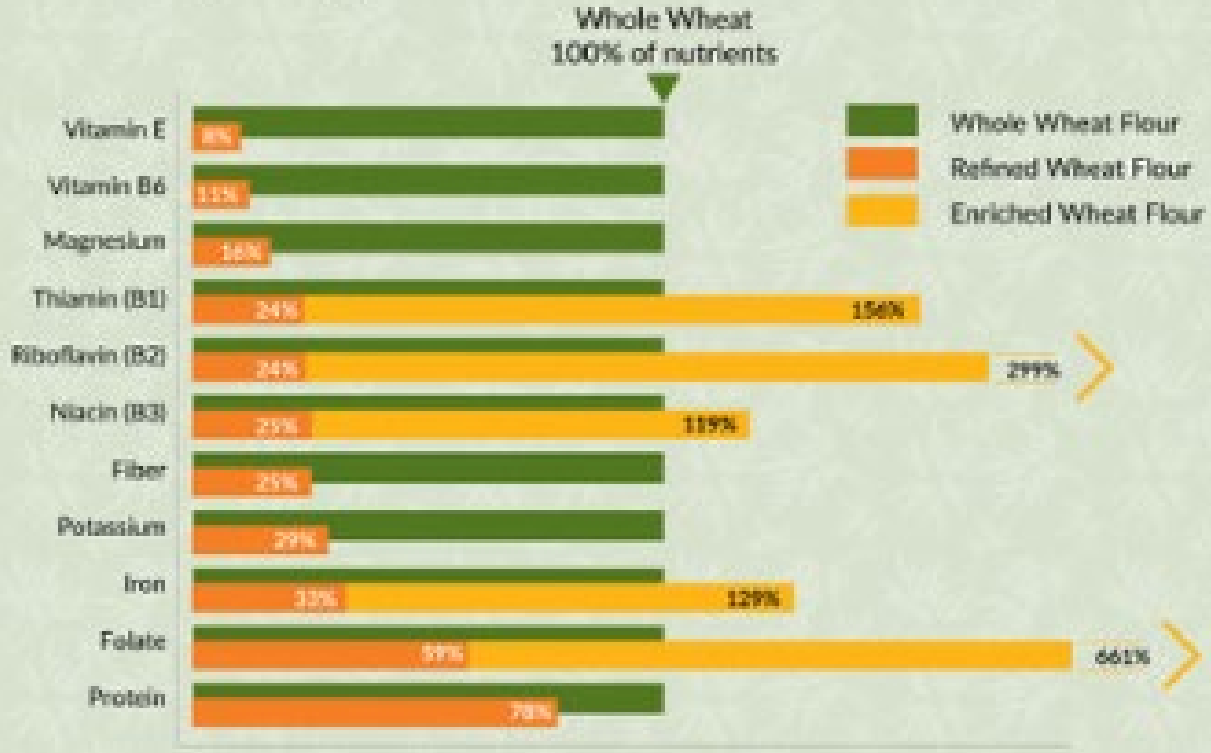
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OLDWAYS WHOLE GRAINS COUNCIL

# WHOLE GRAINS 101

**Whole grains are healthier, with more fiber, more protein, and higher levels of many essential nutrients. Most of the grain kernel's nutrients—and flavor—are in the bran and germ, which are routinely stripped out to make white flour.**






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# Grain ID Activity



Culinary Institute of America

# Flavor Enhancers: Herbs, Spices, Culinary Acids

Day 4

# Taste / Flavor

Most important factor influencing food choice

American palate has grown bolder

Flavor and healthful cooking are bound together






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# It Makes "Sense"

- Taste
- Smell
- Touch
- Sight
- Sound





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# The "Tastes"



## Sweet

- Innate preference for sweet from birth – endorphins
- **Mellows** acidic and bitter tastes
- *Sources: sugars, sugar alcohols, alternative sweeteners*



## Salty

- Preference strongly influenced by environmental factors – from 4 to 6 months, innate
- **Enhances** flavor, **counteracts** bitterness, **accentuates** sweetness
- *Source: salt*



## Sour

- Proved bright, sharp flavors
- **Reduces** saltiness, **balances** spiciness
- *Source: acidic ingredients, citrus, vinegars*



## Bitter

- Taste for bitterness helps people sense natural toxins
- **Provides** complexity, depth
- *Sources: quinine, dark chocolate, beer, coffee, grapefruit juice, zests*



## Umami

- Japanese for "delicious". Described as savory, brothy or meaty
- *Sources: meat, cheese, tomatoes, mushrooms, seaweed, MSG, miso and fermented products*



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# Children's Taste Preference

Sweet

Salty

Sour

Bitter





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# Smell

10,000 times more sensitive than our sense of taste.





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# Touch - Mouthfeel

**Temperature**

- Cold suppresses sweetness
- Bitterness is more intense with a cold solution
- Sourness is more tense with a warm solution

**Chemethesis**

- Burn of chilis
- Cool of mint
- Sting from carbonation

**Texture:** give us insight into the “taste of food”

- Velvet smoothness of mousse
- Crunch crust of bread
- Snap of a sugar snap pea








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# Sight

- Colors
- Shapes
- Consistency
- Moisture





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# Sound

- Crunch
- Crackle
- Sizzle
- Squeaky
- Carbonation





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# Jelly Bean Sensory Evaluation Challenge



# What's Up With Sodium?



# Salt or Sodium

Sodium chloride is the chemical name for salt

Salt is 40% sodium and 60% chloride

Most of the sodium we consume is in the form of salt






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# The Problem with Too Much Sodium

Too much sodium is the leading risk factor for **high blood pressure**

High blood pressure is the major risk factor for heart disease and stroke, both are leading causes of death in the U.S.

Majority of persons in the U.S. exceed current recommendations for sodium, partly due to consumption of highly processed and prepared/restaurant foods





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# Sources of Sodium in Our Diet

- The salt shaker is not the blame!
  - More than 75% of the sodium Americans consume comes from restaurant, prepackaged, and processed foods
  - Only about 5% of dietary sodium is added during home cooking and only about 6% is added at the table
  - The remaining 12% of dietary sodium occurs naturally in foods
- Surprising sources of sodium:
  - Lots of packaged and processed foods
  - Breads and rolls, cold cuts/cured meats, and pizza

| Food | Sodium Range (in milligrams) |
|---|---|
| 1 slice white bread | 80 - 230 |
| 3 oz turkey breast, deli or pre-packaged luncheon meat | 450 - 1,050 |
| 4 oz slice frozen pizza, plain cheese, regular crust | 370 - 730 |
| 4 oz slice restaurant pizza, plain cheese, regular crust | 510 - 760 |
| 4 oz boneless, skinless chicken breast, fresh | 40 - 330 |
| 3 oz chicken strips, restaurant, breaded | 430 - 900 |
| 3 oz chicken nuggets, frozen, breaded | 200 - 570 |
| 1 cup chicken noodle soup, canned prepared | 100 - 940 |
| 1 corn dog, regular | 350 - 620 |
| 1 cheeseburger, fast food restaurant | 710 - 1,690 |
| 1 oz slice American cheese, processed (packaged or deli) | 330 - 460 |
| 1 cup canned pasta with meat sauce | 530 - 980 |
| 5 oz pork with barbecue sauce (packaged) | 600 - 1,120 |
| 1 oz potato chips, plain | 50 - 200 |




Sodium levels of the same food can vary widely, so choose wisely.

Source: www.cdc.gov



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# Sodium Intake Recommendations

*The Dietary Guidelines for Americans* recommend limiting sodium to less than **2,300** mg per day ages 14 and above

For children, the recommendations vary by age:

- **Ages 1 – 3**: less than 1,200 mg per day
- **Ages 4 – 8**: less than 1,500 mg per day
- **Ages 9 – 13**: less than 1,800 mg per day



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# Final Rule for Sodium in School Meals

**Final Rule for Sodium in School Meals**

| Age/Grade Group | Current Sodium Limit: In place through June 30, 2027 | Sodium Limit: Must be implemented by July 1, 2027 (approximate 15% reduction for lunch and approximate 10% reduction for breakfast from current limits) |
|---|---|---|
| **School Breakfast Program** | | |
| K-5 | ≤ 540 mg | ≤ 485 mg |
| 6-8 | ≤ 600 mg | ≤ 535 mg |
| 9-12 | ≤ 640 mg | ≤ 570 mg |
| **National School Lunch Program** | | |
| K-5 | ≤ 1,110 mg | ≤ 935 mg |
| 6-8 | ≤ 1,225 mg | ≤ 1,035 mg |
| 9-12 | ≤ 1,280 mg | ≤ 1,080 mg |

Source: https://www.fns.usda.gov/cn/school-nutrition-standards-updates/sodium.
Limits apply to the average amount of sodium in lunch and breakfast menus offered during a school week.



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# Read Food Labels



Bosco's® Whole Grain Pizza Stuffed Breadsticks

## Nutrition Facts

**72 Servings Per Container**

Serving Size 107g

**Amount Per Serving**

**Calories** **250**

| | Daily Value % * |
|---|---|
| **Total Fat** 9g | 12% |
| Saturated Fat 4.5g | 23% |
| Trans Fat 0g | |
| **Cholesterol** 25mg | 8% |
| **Sodium** 510mg | 22% |
| **Total Carbohydrate** 30g | 11% |
| Dietary Fiber 3g | 11% |
| Total Sugars 3g | |
| Includes 3g Added Sugars | 6% |
| **Protein** 11g | |
| Vitamin D MC | 0% |
| Calcium mg | 10% |
| Iron mg | 10% |
| Potassium mg | 4% |

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



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# Sodium Labeling

| Label term | Definition |
|---|---|
| Sodium free | Less than 5 mg per serving |
| Very low sodium | 35 mg or less per serving |
| Low sodium | 140 mg or less per serving |
| Reduced or Less sodium | At least 25 % less per serving than the reference food |
| Unsalted or no salt added | No salt added during processing; however, the product may still contain sodium |



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## Soy Sauce

1 tablespoon = **960** mg sodium




## Less Sodium Soy Sauce

1 tablespoon = **590** mg sodium



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# High-Sodium Ingredients

| Ingredient | Function |
|---|---|
| Monosodium glutamate (MSG) | Flavor enhancer |
| Sodium benzoate | Preservative |
| Sodium caseinate | Thickener and binder |
| **Sodium citrate** | **Buffer used to control acidity in soft drinks** |
| Sodium nitrite | Curing agent in meat |
| Sodium phosphate | Emulsifier and stabilizer |
| Sodium propionate | Mold inhibitor |
| Sodium saccharin | Artificial sweetener |



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# Which food has more sodium?

- One bagel
- Two slices of bacon

**Answer:**

- **One bagel (500mg)**
- Two slices of bacon (320 mg)





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# Which food has more sodium?

- Half can of tuna in water
- One slice of devil's food cake (from cake mix)

**Answer:**

- **One slice of devil's food cake (370 mg)**
- Half can of tuna in water (150 mg)





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# Which food has more sodium?

- Low-fat cottage cheese (1/2 cup)
- Yoplait light yogurt (6 oz)

**Answer:**

- **Low-fat cottage cheese (450 mg)**
- Yoplait light yogurt (85 mg)





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# Salt Math

1 teaspoon of table salt weighs 5.6 grams or 5600 mg

5600 mg x 40% (sodium) = 2240 mg sodium

1 teaspoon of salt = 2240 mg of sodium






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# Using Salt

| Table salt | 50 portions | 100 portions |
|---|---|---|
| 1 teaspoon (2240 mg sodium) | 45 mg per portion | 23 mg per portion |
| 1 tablespoon (6720 mg sodium) | 135 mg | 70 mg |
| 2 tablespoons (13,440 mg sodium) | 270 mg | 135 mg |



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# Comparing Salts

| Salt | Amount | Weight | Sodium (mg) |
|---|---|---|---|
| **Table salt** | 1 teaspoon | 6 grams | 2300 |
| **Diamond Crystal kosher salt** | **1 teaspoon** | **2.8 grams** | **1120** |
| **Diamond Crystal sea salt** | 1 teaspoon | 5.6 grams | 2160 |
| **Morton kosher salt** | 1 teaspoon | 4.8 grams | 1920 |
| **Morton sea salt** | 1 teaspoon | 5.6 grams | 2240 |
| **Diamond Crystal Salt Sense**<br>*Ingredients: salt, silicon dioxide, tricalcium phosphate, sodium bicarbonate, dextrose, potassium iodine* | 1 teaspoon | 4 grams | 1560 |
| **Morton Salt Substitute**<br>*Ingredients: potassium chloride* | 1 teaspoon | 5 grams | No sodium |



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# Types of Salt

- Table salt
- Kosher salt
- Sea salt
- Curing or brining salt
- Himalayan pink salt
- Hawaiian black salt
- Smoked salt







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# Cut the Sodium in School Meals & Menus



# Sodium Free Ingredients:
# **Citrus**









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# Sodium Free Ingredients: **Vinegars**










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# Sodium Free Ingredients: **Herbs**









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# Sodium Free Ingredients:
# **Spice Blends**









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# Sodium Free Ingredients:
# **Onions and Garlic**









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# Essential Spices and Herbs

- Garlic, granulated
- Onion powder
- Cumin
- Paprika, sweet
- Paprika, smoked
- Chili powder
- Ginger, ground
- Pepper, black
- Pepper, red
- Rosemary
- Oregano
- Thyme





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| Spice | Sodium per 1 teaspoon |
| --- | --- |
| Garlic, granulated | 0 |
| **Garlic salt** | **1960** |
| Onion powder | 0 |
| **Onion salt** | **1800** |
| Black pepper | 0 |
| Paprika | 0 |
| Cumin | 5 |



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# Make Your Own Spice Blend



## *Seasonings Blends*

**Yield: 1 quart**

| | | |
|---|---|---|
| **Mexican** | Onion powder | 1/3 cup |
| | Garlic, granulated | 1/3 cup |
| | Paprika, smoked | 1/3 cup |
| | Cumin, ground | 1 ¼ cup |
| | Chili powder | 1 ¾ cup |
| **Buffalo** | Onion powder | 1 cup |
| | Garlic, granulated | 1 ¼ cup |
| | Paprika | ¼ cup |
| | Chili pepper | 1 ¼ cup |
| | Cayenne pepper | ¼ cup |
| **Italian** | Basil, dried | 1 1/3 cup |
| | Oregano, dried | 1/3 cup |
| | Marjoram, dried | 1 cup |
| | Thyme, dried | 1/3 cup |
| **Caribbean Spice** | Ginger, ground | 1 cup |
| | Black pepper, ground | 1 cup |
| | Orange peel, dried | ¾ cup 2 tablespoons |
| | Mace, ground | 1 tablespoon |
| | Cloves, ground | 1 tablespoon |
| | Brown sugar | 1 cup |
| **Garlic & Herb** | Onion, granulated | 1/3 cup |
| | Garlic, granulated | 2/3 cup |
| | Paprika | 1 cup |
| | Oregano leaves | 1 cup |
| | Thyme leaves | 1 cup |

| | | |
|---|---|---|
| **Barbecue** | Onion powder | 1 cup |
| | Garlic, granulated | 1 cup |
| | Paprika, smoked | ¾ cup 2 tablespoons |
| | Cumin, ground | ¾ cup 2 tablespoons |
| | Black pepper, ground | ¼ cup |
| **Ranch** | Garlic, granulated | 1 ¼ cup |
| | Onion powder | 1 ¼ cup |
| | Dill weed | 1 ¼ cup |
| | Black pepper, ground | ¼ cup |
| **Parmesan-Rosemary** | Garlic, granulated | ½ cup |
| | Rosemary, crushed | ¾ cup |
| | Parmesan cheese | 2 ¾ cups |
| **Spice Rub** | Onion powder | ½ cup 2 tablespoons |
| | Garlic, granulated | ½ cup 2 tablespoons |
| | Paprika | ½ cup 2 tablespoons |
| | Cumin, ground | ½ cup 2 tablespoons |
| | Chili powder | ½ cup 2 tablespoons |
| | Black pepper, ground | 2 tablespoons |
| | Brown sugar | ¾ cup |
| **Tandoori** | Paprika | 2/3 cup |
| | Cumin, ground | 2/3 cup |
| | Coriander | 2/3 cup |
| | Cayenne pepper | 2/3 cup |
| | Ginger, ground | 2/3 cup |
| | Turmeric | 2/3 cup |

ADDING SALT

Salt may be added to any of these seasoning blends as needed.
Using 1 teaspoon of salt for 50 servings adds about 45 mg of sodium per serving.
Using 1 tablespoon of salt for 100 servings adds about 70 mg of sodium per serving.



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# Seasoning Blends

| Spice or Herb | Mexican | Buffalo | Italian | BBQ | Ranch | Tandoori |
|---|---|---|---|---|---|---|
| **Garlic, granulated** | 1/3 cup | 1 ¼ cup | 1 cup | 1 cup | 1 ¼ cup | |
| **Onion powder** | 1/3 cup | 1 cup | | 1 cup | 1 ¼ cup | |
| **Cumin** | 1 ¼ cup | | | ½ cup 2 tablespoons | | 2/3 cup |
| **Paprika** | | ¼ cup | | | | 2/3 cup |
| **Paprika, smoked** | 1/3 cup | | | ½ cup 2 tablespoons | | |
| **Chili powder** | 1 ¾ cup | 1 ¼ cup | | | | |
| **Pepper, black** | | | | ¼ cup | ¼ cup | |
| Red pepper, ground | | ¼ cup | | | | |
| Pepper, cayenne | | | | | | 2/3 cup |
| Ginger, ground | | | | | | 2/3 cup |
| Turmeric | | | | | | 2/3 cup |
| Basil, dried | | | 1 1/3 cup | | | |
| Oregano, dried | | | 1/3 cup | | | |
| Thyme, dried | | | 1 cup | | | |
| Rosemary, dried | | | 1/3 cup | | | |
| Dill weed, dried | | | | | 1 ¼ cup | |



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# Ranch

Garlic, granulated

Onion, granulated

Pepper, black

Dill





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# BBQ

- Garlic, granulated
- Onion, granulated
- Pepper, black
- Paprika, smoked
- Cumin





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# Taco Seasoning

Garlic, granulated

Onion powder

Cumin

Paprika

Chili powder

| Taco seasoning | Sodium in 2 teaspoons |
|---|---|
| Regular | 560 mg |
| Low-sodium | 220 mg |
| Made on-site | 15 mg |





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# Regular Taco Seasoning

## 280 mg sodium per teaspoon




**Ingredients:** Salt, spice, garlic powder, corn starch, onion powder, chili pepper, red bell pepper, paprika, onion……

# Less Sodium Taco Seasoning

## 110 mg sodium per teaspoon




**Ingredients:** corn starch, maltodextrin, chili pepper, onion powder, salt, spice, sea salt……



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# Compare Brands: **Ketchup**

| Condiment | Sodium per 2 tablespoon |
|---|---|
| Heinz | 320 |
| Hunt's | 360 |
| Del Monte | 380 |
| Red Gold | 160 |
| Red Gold Naturally Balanced | 100 |






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# Seasoning Primer







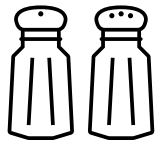


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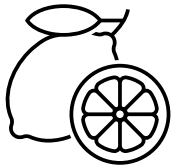
# Seasonings or Flavorings



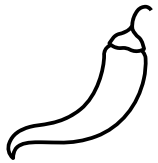
HERBS



SPICES



ACIDIC INGREDIENTS (CULINARY ACIDS)



PEPPERS



CONDIMENTS



SAUCES



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# Herbs

- Fresh Herbs
- Dried Herbs
- Pesto and Purees





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# Herbs

The leaves of aromatic plants

Some herbs dry more successfully than others

Aroma is a good indicator of quality in both fresh and dried herbs

1 tablespoon cut, fresh herbs = 1 teaspoon crumbled dry herbs = ¼ to ½ teaspoon ground dried herbs



# Versatile Fresh Herbs

Parsley

Cilantro

Mint

Basil





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# Examples of Using Fresh Herbs

- Tomatoes with Fresh Basil
- Corn and Black Bean Salad with Cilantro
- Zucchini and Apple Salad with Mint
- Baked Potato with Chives





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# Spices

- Aromatics prepared from the roots, buds, flowers, fruits, bark or seeds of plants
  - Cinnamon comes from a bark
  - Pepper from a berry
  - Ginger from a root
  - Nutmeg from a fruit





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# Spices

Most spice flavors are intense and powerful

Spices are usually dried and available whole or ground

Whole spices retain flavor longer than ground spices





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# Developing Flavor: **Spices**

- Coleslaw with Caraway
- Spinach Dip with Nutmeg
- Black Beans with Toasted Cardamom
- Carrots with Cumin
- Butternut Squash with Cinnamon





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# Developing Flavor: **Acidic Ingredients**

- Citrus Juices
- Citrus Zests
- Vinegars
- Tomato Products





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# Developing Flavor: **Acidic Ingredients**

- Carrots cooked with orange juice or zest
- Green beans with toasted walnuts and vinaigrette
- Vegetable Soup with Tarragon Vinegar





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# Additional Flavor Ingredients

Onions

Garlic

Leeks





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# Additional Flavor Ingredients: **Condiments**

- Horseradish
- Wasabi
- Ginger
- Mustards
- Pickles
- Olives
- Salsas





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# Additional Flavor Ingredients: **Peppers**

Hot Peppers

Sweet Peppers

Pepper Sauce





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# Developing Flavor: **Peppers**

- Adobe Chili Sauce
- Raspberry Chipotle Sauce
- Marinated Roasted Peppers
- Brown Rice Pilaf with Diced Peppers
- Roasted Red Pepper Coulis





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# Added Sugars



# Reducing Sugars

**Americans** are eating and drinking **too much added sugars** which can lead to health problems such as **weight gain** and **obesity**, **type 2 diabetes**, and **heart disease**.

About **40% of children and adolescents** are **overweight** or have **obesity**; the rate of obesity increases throughout childhood and teen years

School breakfast offers protection from obesity






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U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Edition. December 2020.

# 10% of the Calories from Sugar in our Diets

| Total Calories | 10% Calories from Sugar | 4 calories in a gram of sugar | Sugar (grams) |
|---|---|---|---|
| 2000 x.10 | = 200 | ÷ 4 | = 50 grams sugar |

- Food labels:  4 grams of sugar = 1 teaspoon
- 1 – 12 oz. can of cola contains 39 grams of added sugar
  - Almost 10 tsp of sugar!
- That's 156 empty calories!


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# 10% of the Calories from Sugar in School Meals

| | Calories (maximum) | 10% Calories from Sugar | Sugar (grams) |
|---|---|---|---|
| Breakfast | | | |
| K-5 | 500 | 50 | **12.5** |
| 6-8 | 550 | 55 | **13.75** |
| 9-12 | 600 | 60 | **15** |
| Lunch | | | |
| K-5 | 650 | 65 | **16.25** |
| 6-8 | 700 | 70 | **17.5** |
| 9-12 | 850 | 85 | **21.25** |

4 gm sugar = 1 tsp



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# Sugars on the Label



**Nutrition Facts**

8 servings per container

**Serving size** **8 fl oz (240mL)**

**Amount per serving**

**Calories** **110**

| | % Daily Value* |
|---|---|
| **Total Fat** 0g | **0%** |
| Saturated Fat 0g | **0%** |
| *Trans* Fat 0g | |
| **Cholesterol** 0mg | **0%** |
| **Sodium** 5mg | **0%** |
| **Total Carbohydrate** 27g | **10%** |
| Dietary Fiber 0g | **0%** |
| Total Sugars 25g | |
| Includes 23g Added Sugars | **46%** |
| **Protein** 0g | |
| Vitamin D 0mcg | 0% |
| Calcium 0mg | 0% |
| Iron 0mg | 0% |
| Potassium 40mg | 0% |

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

**Total Sugars**

Includes sugars naturally present in many foods and beverages, such as sugar in milk and fruits as well as any added sugars that may be present in the product.

**Added Sugars**

Includes sugars that are added during the processing of foods (such as sucrose or dextrose), foods packaged as sweeteners (such as table sugar), sugars from syrups and honey, and sugars from concentrated fruit or vegetable juices. They do not include naturally occurring sugars that are found in milk, fruits, and vegetables.

The Daily Value for added sugars is 50 grams per day based on a 2,000 calorie daily diet.

***Source:*** www.fda.gov/food/new-nutrition-facts-label/added-sugars-new-nutrition-facts-label



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# What is in a Name?

| | | |
|---|---|---|
| Brown sugar | Corn sweetener | Corn syrup |
| Fruit juice concentrates | High-fructose corn syrup | Honey |
| Invert sugar | Malt sugar | Molasses |
| Raw sugar | Sugar | Syrup |

- Dextrose
- Fructose
- Glucose
- Lactose
- Maltose
- Sucrose



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# Added Sugars

1 teaspoon granulated sugar

=

4 grams of sugar

- 1 fruit flavored yogurt contains 13g added sugar
- This equals 3 teaspoons worth of granulated sugar

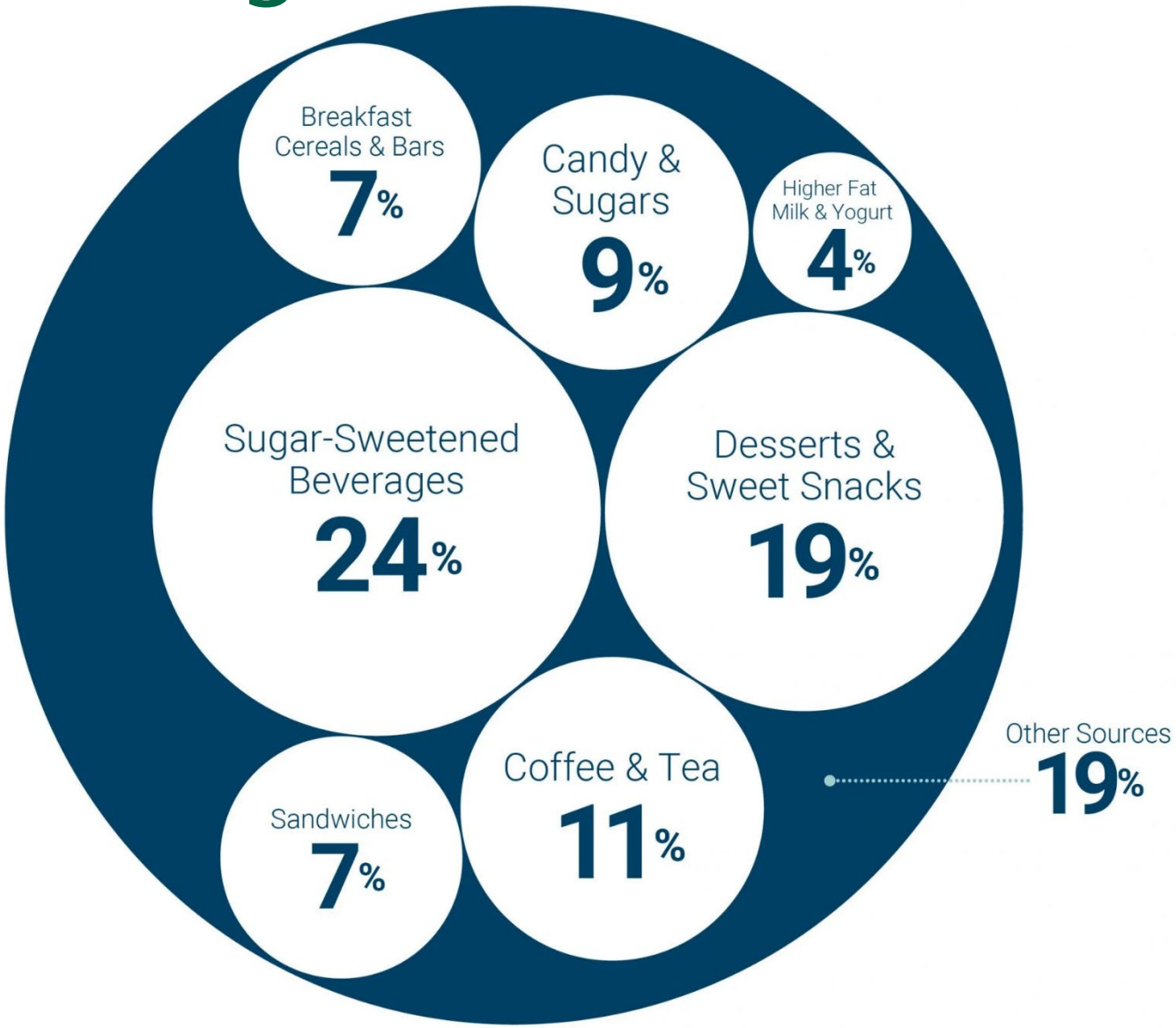





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# Food Sources of Added Sugar

Where is sugar in our diets?






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# Soda and Sugar

*Pay attention to portion size*

| Portion | Calories | Added Sugar (gm) |
|---|---|---|
| 8 ounces | 100 | 23 |
| 12 ounces | 140 | 34 |
| 20 ounces | 240 | 56 |
| 32 ounces | 380 | 90 |
| 64 ounces | 760 | 180 |



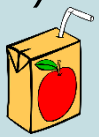



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# Rethink Your Drink

## Whole Fruit Comparison to 100% Fruit Juice

Meet nutritional needs primarily from nutrient-dense foods and beverages

| | Orange (1 cup)  | Orange Juice (1 cup)  | Apple (1 cup)  | Apple Juice (8 fl oz.)  | Grapes (1 cup)  | Grape Juice (8 fl oz)  |
|---|---|---|---|---|---|---|
| **Calories:** | 85 kcals | 112 kcals | 65 kcals | 120 kcals | 104 kcals | 160 kcals |
| **Sugar:** | 14 g | 21 g | 13 g | 24 g | 23 g | 36 g |
| **Fiber:** | 3.3 g | 0 g | 3 g | 0 g | 1.4 g | 0 g |
| **Vitamin C:** | 98 mg | 85 mg | 6 mg | 83 mg | 5 mg | 45 mg |
| **Calcium:** | 70 mg | 260 mg | 7.5 mg | 13 mg | 15 mg | 26 mg |
| **Potassium:** | 275 mg | 350 mg | 135 mg | 0 g | 288 mg | 0 g |



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# Benefits of Whole Fruit

At least half of the recommended amount of fruit should come from whole fruit, rather than 100% juice





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# Top 10 Sources of Added Sugars at School Breakfast

Data from the USDA School Nutrition and Meal Cost Study showed that flavored milk, ready-to-eat cereals, and condiments and toppings are among the top sources of added sugars at school breakfast.[2]

1. 

**Flavored Fat-Free (skim) Milk**

2. 
**Sweetened Ready-to-Eat Breakfast Cereal**

3. 

**Syrups, Frostings, and Other Condiments and Toppings**

4. 
**Muffins and Sweet/ Quick Breads**

5. 
**Granola Bars and Breakfast Bars**

6. 
**Toaster Pastries**

7. 
**Pancakes, Waffles, and French Toast**

8. 

**Sweet Crackers** (e.g., graham crackers, animal crackers, etc.)

9. 
**Cinnamon Buns**

10. 
**Sweetened Yogurt**


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# Added Sugar: **Breakfast**




Pop-Tarts® Made with Whole Grain Frosted Blueberry, 2 ct

**Nutrition Facts**

6 servings per container

**Serving size** **1 Pouch (96g)**

**Amount per serving**

**Calories** **340**

| | % Daily Value* |
|---|---|
| **Total Fat** 5g | **6%** |
| Saturated Fat 1.5g | **8%** |
| Trans Fat 0g | |
| Polyunsaturated Fat 2g | |
| Monounsaturated Fat 1g | |
| **Cholesterol** 0mg | **0%** |
| **Sodium** 350mg | **15%** |
| **Total Carbohydrate** 73g | **27%** |
| Dietary Fiber 5g | **19%** |
| Total Sugars 29g | |
| Includes 28g Added Sugars | **56%** |
| **Protein** 4g | |

| | |
|---|---|
| Vitamin D 0mcg 0% | • Calcium 270mg 20% |
| Iron 3.7mg 20% | • Potassium 110mg 2% |
| Vitamin A 20% | • Thiamin 20% |
| Riboflavin 20% | • Niacin 20% |
| Vitamin $B_6$ 20% | |

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

**Equivalent to 7 tsp. of sugar!**



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# Added Sugar: **Breakfast**




## Nutrition Facts

| | | |
|---|---|---|
| **Serving Size** | | 1 Container (56g) |
| | | As Packaged |
| **Calories** | | **210** |
| | | **% DV** |
| **Total Fat** | 2.5g | **3%** |
| Saturated Fat | 0.5g | **3%** |
| Trans Fat | 0g | |
| **Cholesterol** | 0mg | **0%** |
| **Sodium** | 320mg | **14%** |
| **Total Carbohydrate** | 45g | **16%** |
| Dietary Fiber | 4g | **14%** |
| Soluble Fiber | 1g | |
| Total Sugars | 19g | |
| Incl. Added Sugars | 19g | **38%** |
| **Protein** | 5g | |
| Vitamin D | | **15%** |
| Calcium | | **15%** |
| Iron | | **30%** |
| Potassium | | **4%** |

**Equivalent to about 5 tsp. of sugar!**



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# Added Sugar: **Breakfast**

| Food | Portion | Calories | Total Sugar | Added Sugar |
|---|---|---|---|---|
| Plain yogurt, lowfat | 1 cup | 150 | 17 | 0 |
| Fruit flavored yogurt | 1 cup | 200 | 26 | 17 |
| Milk, lowfat | 1 cup | 100 | 12 | 0 |
| Chocolate milk, lowfat, reduced sugar | 1 cup | 140 | 18 | 6 |
| Oatmeal | 1 cup | 170 | 1 | 0 |
| Instant oatmeal | 1 cup | 320 | 22 | 16 |
| Fruit juice | 1 cup | 110 | 21 | 0 |
| Fruit drink | 1 cup | 120 | 27 | 27 |



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# How Do We Reduce Sugar in School Breakfasts?



# Switch to Savory











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# Switch to School-Made

This will allow you to reduce the amount of sugar in the recipe compared to premade









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# Use the Natural Sweetness of Fruits

- Fruit Puree
- Unsweetened Applesauce
- Banana Puree
- Prune Puree
- Dates











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# Use “Sweet” Spices

- Cinnamon
- Allspice
- Vanilla
- Chinese 5 spice









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Culinary Institute
of America

# Any Questions?