

Manager's Corner

Red/Orange Vegetables Subgroup in School Meals

PROJECT COORDINATOR
Theresa Stretch, MS, RDN, CP-FS

EXECUTIVE DIRECTOR
Aleshia Hall-Campbell, PhD, MPH



NUTRITION



OPERATIONS



ADMINISTRATION



COMMUNICATIONS/
MARKETING

Key Area: 1 Nutrition



**Code: 1310 Dietary Guidelines for
Americans, MyPlate, and School
Nutrition
1320 General Nutrition**

2019

Institute of Child Nutrition

The University of Mississippi

The Institute of Child Nutrition was authorized by Congress in 1989 and established in 1990 at the University of Mississippi in Oxford and is operated in collaboration with The University of Southern Mississippi in Hattiesburg. The Institute operates under a grant agreement with the United States Department of Agriculture, Food and Nutrition Service.

PURPOSE

Improve the operation of child nutrition programs through research, education and training, and information dissemination.

VISION

Lead the nation in providing research, education, and resources to promote excellence in child nutrition programs.

MISSION

Provide relevant research-based information and services that advance the continuous improvement of child nutrition programs.

This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service through an agreement with the Institute of Child Nutrition at the University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

The University of Mississippi is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability.

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights; Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

© 2019, Institute of Child Nutrition, The University of Mississippi, School of Applied Sciences

Except as provided below, you may freely use the text and information contained in this document for non-profit or educational use with no cost to the participant for the training providing the following credit is included. These materials may not be incorporated into other websites or textbooks and may not be sold.

Suggested Reference Citation:

Institute of Child Nutrition. (2019). *Manager's corner: Red/orange vegetables subgroup in school meals*. University, MS: Author.

The photographs and images in this document may be owned by third parties and used by the University of Mississippi under a licensing agreement. The University cannot, therefore, grant permission to use these images.

For more information, please contact helpdesk@theicn.org. November 22, 2019

Table of Contents

Professional Standards	1
Introduction	1
Lesson Overview.....	2
Questions for Staff.....	2
Activity: Red/Orange Vegetables in School Meals Menu Item Identification	3
References.....	6

Professional Standards

GENERAL NUTRITION – 1300

Employee will be able to understand the *Dietary Guidelines for Americans*, USDA's food guidance system concepts, and general nutrition principles.

1310 – Dietary Guidelines for Americans, MyPlate, and School Nutrition
Relate the Dietary Guidelines and USDA's food guidance system (such as MyPlate) concepts to the goals of school nutrition programs.

1320 – General Nutrition
Understand general nutrition concepts that relate to school meals, such as whole grains, sodium, etc.

Introduction

Manager's Corner: Red/Orange Vegetables Subgroup in School Meals is designed to empower managers to use in training their staff. Each lesson is roughly 15 minutes. This lesson plan contains:

- Learning objective
- Statement explaining the importance of the topic
- List of materials
- Instructions on how to present the information
- Questions to ask staff
- An activity to strengthen or refresh the knowledge of the staff

Lesson Overview

Instructions for lesson:

- Review the lesson objective and background information
- Review why it is important
- Ask staff the questions.
- Facilitate the activity outlined.
- Provide time for staff to ask questions.

Objective: Identify food sources, nutrient considerations, health benefits, and menu suggestions for red/orange vegetables.

Background Information: Red/orange vegetables are a great way to add color and increase the eye appeal of meals served throughout your program. Some food sources for red/orange vegetables include red and orange peppers, tomatoes, sweet potatoes, carrots, pumpkins, and winter squash, to name a few. Red/orange vegetables provide a significant amount of vitamin A, beta-carotene, vitamin C, potassium, and antioxidants. Eating red/orange vegetables provides several health benefits that include reduced risk of heart disease (heart attack and stroke), lowered blood pressure, reduced risk of kidney stones, decrease in bone loss, and protection against certain cancers.

Why it is important: The red/orange vegetables subgroup is a requirement of federally funded school lunch meals, and it provides many health benefits to children.

Questions for Staff

- **What are some red/orange vegetable food sources?**

Answer: Food sources for red/orange vegetables include red and orange peppers; tomatoes; cherry tomatoes; sweet potatoes; carrots; pumpkin; and winter squash (acorn, butternut, and hubbard).

- **What nutrients do red/orange vegetables contain?**

Answer: In comparison with other vegetable subgroups, red/orange vegetables provide a significant amount of vitamin A since they are rich in beta-carotene. Red/orange vegetables are also a good source of vitamin C, potassium, and antioxidants.

- **What are the health benefits for individuals consuming a variety of vegetables, including red/orange vegetables?**

Answer: Health benefits for individuals consuming red/orange vegetables include:

- Lower intake of calories due to a low calorie, low-fat food source
- Reduced risk of heart disease which includes heart attack and stroke
- Lowered blood pressure, reduced risk of kidney stones, and decrease in bone loss due to rich potassium source
- Protection against certain cancers

Activity: Red/Orange Vegetables

Activity materials provided in this document:

- **Red/Orange Vegetables**
- **Red/Orange Vegetables Answer Key**

Materials provided by the school nutrition operation:

- **ICN Meal Plan Mini Posters Red/Orange Vegetables** (located at <https://theicn.org/icn-resources/>). Select Meal Pattern Mini-Posters and choose the mini-poster from the listing.
- Copies of handouts
- Pens/Pencils

Activity Instructions:

- Print the handouts and worksheets.
- Ask staff to complete the **Red/Orange Vegetables** using the information from the **ICN Meal Plan Mini Posters Red/Orange Vegetables** mini-poster.
- At the conclusion of the activity, review the **Red/Orange Vegetables Answer Key**.

Red/Orange Vegetables

Instructions: Review the menu below and select the red/orange vegetables. Identify ways to incorporate red/orange vegetables into school meals.

Grades 9-12 Weekly Lunch Menu

Monday	Tuesday	Wednesday	Thursday	Friday
Mini Meatball Sub or Fruit, Yogurt, Granola Parfait	BBQ Chicken Drumstick Whole Wheat Roll or Fish Taco	White Bean Chili Cornbread Muffin or Beef Wrap	Cheese Pizza Alfredo or Grilled Chicken Sandwich	Biscuits and Scrambled Eggs or Pepperoni Pizza
Ranch Potato Wedges	Baked Beans Creamy Cole Slaw	Cherry Tomatoes	Broccoli Florets	Fresh Sugar Snap Peas
Tossed Salad	Fresh Baby Carrots	Cucumber Slices	Fresh Baby Carrots	Hash Brown Patty
Fresh Peach	Apricot Halves	Fresh Banana	Fresh Citrus Fruit Cup	Fresh Plum
Canned Fruit	Fresh Fruit	Canned Fruit	Canned Fruit	Canned Fruit
Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)

Source: Kansas Department of Education. (2016). *Healthier Kansas menus*. Retrieved https://www.kn-eat.org/SNP/SNP_Menus/SNP_Resources_Healthier_Kansas_Menu.htm

What are some ways red/orange vegetables can be incorporated into school meals?

Red/Orange Vegetables Answer Key

Instructions: Review the menu below and select the red/orange vegetables. Identify ways to incorporate red/orange vegetables into school meals.

Grades 9-12 Weekly Lunch Menu

Monday	Tuesday	Wednesday	Thursday	Friday
Mini Meatball Sub or Fruit, Yogurt, Granola Parfait	BBQ Chicken Drumstick Whole Wheat Roll or Fish Taco	White Bean Chili Cornbread Muffin or Beef Wrap	Cheese Pizza Alfredo or Grilled Chicken Sandwich	Biscuits and Scrambled Eggs or Pepperoni Pizza
Ranch Potato Wedges	Baked Beans Creamy Cole Slaw	Cherry Tomatoes	Broccoli Florets	Fresh Sugar Snap Peas
Tossed Salad	Fresh Baby Carrots	Cucumber Slices	Fresh Baby Carrots	Hash Brown Patty
Fresh Peach	Apricot Halves	Fresh Banana	Fresh Citrus Fruit Cup	Fresh Plum
Canned Fruit	Fresh Fruit	Canned Fruit	Canned Fruit	Canned Fruit
Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)	Milk Choice 1% fat or fat-free (flavored or unflavored)

Note: The correct answers are in bold font. Additionally, the mini meatball sub and pepperoni pizza provide a serving of red/orange vegetables due to the tomato sauce used in the recipes.

Source: Kansas Department of Education. (2016). *Healthier Kansas menus*. https://www.kn-eat.org/SNP/SNP_Menus/SNP_Resources_Healthier_Kansas_Menus.htm

What are some ways to incorporate red/orange vegetables into school meals?

Example response: Include tomatoes in a breakfast omelet.

Please note: The answer provided is only an example and is not an inclusive list of possible responses.

References

Institute of Child Nutrition. (2019). *Reimbursable school meals*. University, MS: Author.

Kansas Department of Education. (2016). *Healthier Kansas menus*. Retrieved https://www.kn-eat.org/SNP/SNP_Menu/SNP_Resources_Healthier_Kansas_Menus.htm

United States Department of Agriculture. (2015). *Professional standards for school nutrition professionals*. Retrieved from <https://www.fns.usda.gov/school-meals/professional-standards>

United States Department of Agriculture. (2016). *Nutrients and health benefits*. Retrieved from <https://www.choosemyplate.gov/vegetables-nutrients-health>

United States Department of Health and Human Services and United States Department of Agriculture. (2015). *Dietary guidelines 2015-2020, key elements of healthy eating patterns*. Retrieved from <https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/>



The University of Mississippi
School of Applied Sciences

800-321-3054
www.theicn.org