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

Key Area: 1 Nutrition
Code: 1310 Dietary Guidelines for Americans, MyPlate, and School Nutrition
1320 General Nutrition
2019
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:

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
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.

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

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


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

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

**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.


**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


