

IEHA Program Lesson Submission

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Topic Title:	Color Code Your Health
Topic Description: (Information should be researched, educational, approved for use (if you are not the author, seek approval from materials author), and presented in a format that would allow an individual to read, study, and teach to other peers.) All copyright issues should be resolved before submission.	Eating a variety of fruits and vegetables supports long-term health, and “color coding” your diet is a simple way to ensure you get a range of nutrients, though the different colors. A colorful diet may help to improve overall diet quality and reduce the risk of chronic diseases.

Short Goal/Objective Statement for Lesson:	• Identify benefits of color (phytonutrients) in the diet • Identify health outcomes linked to nutrients • Apply the “color coding” concept to improve a meal choice
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Lesson Objectives:

- Identify benefits of color (phytonutrients) to ensure nutrient variety
- Identify health outcomes linked to nutrients
- Apply the “color coding” concept to improve a meal choice

Materials:

- Blank sheet of paper and Crayons or Markers (colors of the rainbow) for each participant
- Whiteboard and Dry-Erase markers (colors of the rainbow)

Introduction Questions:

- “What color(s) was your last meal?”
- “Was it mostly one color or many?”

Mini Lesson:

- Share that research from the Harvard T.H. Chan School of Public Health supports increasing fruit and vegetable variety for long-term health. Explain that **more color = more nutrient variety** (generally). Emphasize that color is a quick tool, not a perfect system.
- What are phytonutrients? Phytonutrients are natural compounds that give plants their color, flavor, and smell while helping protect them from environmental threats. When humans eat these plant foods, phytonutrients – such as antioxidants, can help protect against chronic diseases, including cancer and heart disease.
- Significance of Color Codes in our Diet – write the different **Color → Nutrient → Health Benefit → Food Source** on the whiteboard using the colored dry-erase markers
 - *Red → Lycopene → heart health → cranberries, raspberries, tomatoes, cherries, beets, red peppers, red onions*
 - *Orange/Yellow → Beta-carotene → vision/immune system → carrots, sweet potatoes, yellow peppers, oranges, mango*
 - *Green → Folate, Vitamin K → bones, cells → asparagus, artichokes, broccoli, kale, kiwi fruit, collard greens, green herbs*
 - *Blue/Purple → Anthocyanins → brain health → blueberries, Concord grapes, raisins, eggplant, plums, purple cabbage*
 - *White → Allicin → immune support → onions, cauliflower, garlic, leeks, parsnips, daikon radish, mushrooms*
- **Color Code Connection to Disease Risk Reduction**
 - *Diet quality influences risk reduction of chronic diseases*
 - *Heart Health - Key nutrients: Antioxidants, Fiber, Monounsaturated Fats*
 - Examples: Black/green tea, berries, dark chocolate (antioxidants); beans, whole grains (fiber); nuts, seeds, avocados, olives/olive oil (monounsaturated fats)
 - *Skin Health - Key Nutrients: Vitamin A, E, & C; Zinc & Selenium; Bioflavonoids; Alpha-lipoic acid (ALA)*
 - Examples: carrots (A), nuts & seeds (E), spinach (A & E), broccoli, strawberries, oranges (C); Beans, pumpkin seeds, nuts (Zinc), fish & nuts (selenium); pigments (bioflavonoids) found in the skin of fruit & vegetables-darker/richer in color the better; broccoli & spinach (ALA-body can produce, but not enough to help disease).
 - *Vision Health - Key Nutrients: Beta Carotene; Anthocyanin; Lutein; Omega-3*
 - *Immune System - Key Nutrients: Antibiotic, Vitamin C*
 - Examples: garlic (antibiotic activity); citrus fruits (Vitamin C)
 - *Brain Health - Key Nutrients: Vitamin E, C & D; Omega 3 FA*
 - Examples: Plant oils (vit E); citrus fruit (vit C); fatty fish (vit D); fatty fish & plant oils (omega 3FA)
 - *Bone Health - Key Nutrients: Vitamin D, Calcium*
 - Examples: Fatty fish (vit D); broccoli, spinach, dairy (Calcium)
 - *Blood Sugar Control - Key Nutrients: Fiber, Unsaturated Fats, Protein*
 - Examples: Beans, whole grains (fiber); plant oils, seeds, nuts (unsaturated fats); beans, nuts, seeds (protein)

- *Cancer Risk Reduction - Key Nutrients: Antioxidants*
- Examples: Berries, black/green tea, dark chocolate (antioxidants)

Mini Activity: “Color Code Audit”

- Have participants write what they ate in the last 24 hours on a sheet of paper. Then ask them to Color Code each item by highlighting or coloring over the food item with the color it is. Example: broccoli – color or highlight is with GREEN.
- After this is completed, have the participants answer the following questions:
- Which colors are missing?
- What does that suggest about your diet?
- Then prompt participants to think about how they could “Fix one meal you ate by adding at least 2 new colors for added nutrients.”

Conclusion:

- Name one benefit of eating a variety of colors
- State one realistic change you will try this week

Resources:

- American Heart Association [*5 Reasons to Add Color*](#)
- Harvard Health [*Paint Your Plate with the Colors of the Rainbow*](#)
- Harvard T.H. Chan School of Public Health [*The right ‘5-a-day’ mix of fruits and vegetables can boost longevity*](#)
- [*Academy of Nutrition and Dietetics*](#)