

Eat a Rainbow

Overview

Phytonutrients are chemical compounds that occur naturally in plants and have a beneficial effect on human health. Some phytonutrients such as beta carotene (orange) and lycopene (red) are responsible for the vibrant colors you see in fruits and vegetables. “Eating a rainbow” of fruits and vegetables ensures we get a variety of phytonutrients to keep our bodies healthy.

In this lesson, students use a life-size drawing of the human body to illustrate what effects fruits and vegetables of every color have on human health. Students also visit the garden and harvest items of every color to reinforce the strategy for eating a wide variety of fruits and vegetables.

Demonstration Lesson

“Eat A Rainbow,” from **Life Lab’s Plant It Grow It Eat It!** workshop series

Logistics

Time required: 40 minutes

Location: Classroom first, ending in the garden for the final activity

*Materials List:**

- Butcher paper long enough to trace a human body
- Markers
- Clipboards
- One wallet-sized piece of cardstock for each student
- Markers/colored pencils for students
- Fruits or vegetables of each color (from the garden if possible)
- One copy of Rainbow Card reproducible, with each card cut out

**(Summarized from the Demonstration Lesson. Refer to the original for a complete materials list.)*

Free online lesson about “Eating a Rainbow”

Got Veggies? “Color Scavenger Hunt” page 41. Students explore the garden with descriptive color clue cards to identify a variety of fruits and vegetables. For grades 2 – 3. http://www.dhs.wisconsin.gov/health/physicalactivity/pdf_files/Got%20Veggies/GotVeggiesweb12mb.pdf

Free online resources that support teaching about “Eating a Rainbow”

Produce for Better Health (PBH) Fruits and Veggies: More Matters

This website is a bounty of great information to increase your personal knowledge about phytonutrients and much more. Other parts of the website include children’s activities, meal planning strategies, and resource links.

<http://www.fruitsandveggiesmorematters.org/eat-a-colorful-variety-of-fruits-and-vegetables>

What Color is Your Food? Taste a rainbow of fruits and vegetables for better health.

This guide has a variety of useful information to help increase consumption of fruits and vegetables, including produce lists for each color as well as strategies for adding color to your meals. One great feature is a “Colorful and Nutritious Menu Makeover”.

<http://www.ag.ndsu.edu/pubs/yf/foods/fn595.pdf>

Food for Thought

- Can you see doing these lessons with your students?
- How might you modify it to fit your student population?
- How else can you fit “diversity” into your discussion? – Dietary, Cultural, societal...and how does experiencing diversity not only change your dietary health but possibly improve your cultural, emotional, sociological health?
- What cultural foods have limited diversity or wide diversity when it comes to fruits and vegetables? Why might that be and what effects might this have?
- How might this connect with other subjects you teach?
- How might you further connect these activities to the garden? To edible activities? To nutrition? To your community?



Eat a Rainbow

Recommended Grade Level: 4-8

Description:

Students discuss and illustrate what fruits and vegetables of every color do for the body.

Background

Fruits and vegetables are important in our diet. They contain various concentrations and combinations of phytonutrients and each plays a range of roles in keeping our bodies healthy. Some might strengthen our immune system while others might help us develop and maintain strong bones and teeth. Phytonutrients also give fruits and vegetables a spectrum of vibrant colors so “eating a rainbow” of fruits and vegetables is a good way to ensure that we are getting all of the phytonutrients that we need to support good health.

Materials

- Butcher paper long enough to trace a human body
- Markers
- Clipboards
- One wallet-sized piece of cardstock for each student
- Markers/colored pencils for students
- Fruits or vegetables of each color (out in the garden if possible)
- One copy of Rainbow Card reproducible, with each card cut out

Preparation

1. Photocopy and cut apart the color cards from the Rainbow Card reproducible.
2. Take a walk around the garden with the Rainbow Card reproducible and look for produce you can harvest and eat from each color group. If you're missing any colors, supplement with produce from a farmers' market or grocery store. Pick one sample of each fruit or vegetable you'll be eating.

Activity

1. Ask students to brainstorm: *What is nutrition and why is it important?* Write the responses where everyone can see them. (*Nutrition is the effect of food on health, growth, and development of the body. It is important for better performance in school, work, sports, etc. You feel good, don't get sick, have energy to do things...*)
2. Put the butcher paper on the floor and ask a volunteer to lie on the paper. Have another volunteer trace the outline of the person lying down. Once the body is traced, put it up where everyone can see it. Pass out worksheets and markers or colored pencils.

3. Divide the class in half. Hand each person or pair in the first group a whole fruit or vegetable or picture of one that you'll be sampling. Hand each person or pair in the second half a color card.
4. Explain that students' job is to group themselves so that each fruit or vegetable is matched with the correct color card. Then they will prepare, as a team, to convince the rest of the class that their fruit or vegetable is the most important one to eat.
5. Give the groups 5-10 minutes to prepare their arguments.
6. Have each group share out why they think their vegetable is the most important for us to eat. You can do an example with a fruit or vegetable they aren't using. (I am going to talk to you today about kale. Kale is a green vegetable, so it is good for strong bones and teeth. And you need teeth to eat all the other vegetables! So eat your kale!)
7. After each short presentation, summarize why the color is good for you by coloring in parts of the body with that color. (*Okay, green veggies can be good for bones, so I'll draw in some bones and teeth with green marker.*) Note: Allow students to help you come up with creative ways to represent each fact. For example, you might draw a shield in yellow or orange to represent a strong immune system.
8. As you draw on the butcher paper, have each participant do the same on their wallet-sized card. On the back, have them include a brief written explanation of why fruits and vegetables of each color are good for our health (For example, red can be good for healthy heart and memory).
9. Head out to the garden with your class and harvest and enjoy as many of the colors as you can find. As you eat each one, review how it will support your health.
10. Laminate the cards and give them back to students as a pocket reference guide.

Tying it Together

So, which color is the most important to eat? If I want to stay healthy, which color should I eat? (All of them! We should eat a rainbow!)

Digging Deeper

- Cook meals that use a rainbow of colors.
- Have students write down what they ate yesterday and list the colors they ate in each meal. Have students reflect on their lists and ask them to think of ways they can incorporate missing colors.

National Standards

NSES: K-4: Personal Health; 5-8: Personal Health

NHES: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

Color Card Master

<p>RED</p> <p>Can improve heart health, memory function; can lower risk of some cancers.</p> <p>Examples: apples, tomatoes, strawberries, watermelons, beets, cherries.</p>	<p>YELLOW/LIGHT ORANGE</p> <p>Can strengthen your immune system, can provide strong vision.</p> <p>Examples: oranges, grapefruit, corn, yellow peppers, yellow apples.</p>
<p>DARK ORANGE</p> <p>Contributes to strong vision, healthy heart, and strong immune system.</p> <p>Examples: Carrots, oranges, melon, squash, sweet potatoes, orange peppers.</p>	<p>GREEN</p> <p>Can help with strengthening bones and teeth. Can help vision. Provides high fiber for healthy intestinal tract and can lower cholesterol.</p> <p>Examples: Leafy greens, broccoli, cabbage, lettuce, avocado, kiwi.</p>
<p>BLUE/PURPLE</p> <p>Can contribute to healthy aging, can increase memory function.</p> <p>Examples: Grapes, raisins, purple cabbage, eggplant, plums, blueberries, blackberries.</p>	<p>BROWN/WHITE/TAN</p> <p>Can promote heart health, increase immune system function, and decrease cholesterol.</p> <p>Examples: Cauliflower, onions, garlic, bananas, white corn, potatoes.</p>