

The Farmer Grows a Rainbow

First Place Foods

Grade Level: 1

Approximate Length of Activity: One-two class periods

Objective

Teacher

1. Help students develop an understanding that certain foods provide nutrients and energy for growth and healthy living while offering additional health benefits as related to dental health.

Students

1. Apply enabling strategies and skills to read and write.
2. Develop and apply strategies and skills to comprehend text that is read, heard and viewed.
3. Make connections through the use of oral language, written language, media and technology.
4. Understand and use data and simple probability concepts.
5. Demonstrate an understanding of the needs of living organisms.
6. Discuss how foods of the MyPyramid are needed for growth and health.
7. Select healthful snacks for teeth and body from the MyPyramid.
8. Apply knowledge and behavior self-management skills to areas of nutrition and physical activity for healthy growth, development and maintenance.
9. Exhibit a physically active lifestyle.

**Michigan Content Standards: (Health) Strand 1-Standard 1-1.1,1.2,1.3;
Strand 5- Standard 1- 5.1; Strand 5-Standard 3 -5.2**

Background

Foods that are healthy for our bodies, but may be problematic for good dental health, include dried fruits and soft breads which tend to cling to tooth surfaces. Foods containing high acid content, such as yogurt (good for the body) and soft drinks (not good for the body) may erode tooth surfaces when hygiene practices are delayed.

Vocabulary

- **Beans**
- **Benefits**
- **Fruits**
- **Grains**
- **Healthy**
- **Meat**
- **Milk**
- **Nutrition**
- **Oils**
- **Pyramid**
- **Vegetables**

Activity Outline

1. Make necessary preparations as outlined in “The Farmer Grows a Rainbow-Main Course” lesson.
2. Prepare blue ribbons for student use. (included)
3. Invite a dental health professional to class as a resource person for this lesson. Ask this person to be prepared to demonstrate proper teeth brushing and flossing.
4. Prepare hula hoops or colored poster boards representing each color on MyPyramid.gov (orange, green, red, yellow, blue and purple) for “Run the Rainbow Challenge: Building the Pyramid.” Gather play food or laminated pictures of food items from each food group for this activity.
5. Acquire two to five teeth donated by students, a dentist or animal teeth from a meat processing plant. Be sure to coordinate with parents if using teeth and proceed in accordance with school health and safety guidelines.
6. Cut out and laminate individual pictures of a variety of foods from each of the food groups on MyPyramid. Make sure you have at least two examples from each food group. Avoid using pictures of empty calorie foods.
7. Cut out and laminate “Food Group Titles” and gather the colored poster board or hula hoops.
8. Prepare two containers with numbers for “Run the Rainbow Challenge: Building the Rainbow.”
9. Prior to teaching this lesson, assign students to bring in cutouts of food photos or pictures. Labels from food packages, including cans, work well.
10. Teach “The Farmer Grows a Rainbow-Main Course” lesson.
11. Share information about the importance of good dental health and how certain foods can be beneficial to lifelong good dental health-healthy teeth and gums. Provide demonstrations of use of toothbrush, floss, toothpaste, etc. See “American Dental Hygienists’ Association Recommendations”.
12. Ask students to make connections between foods that offer good nutrition as well as benefits for good dental health.
13. Students use pictures of foods to form a large Venn Diagram with overlapping hula hoops. In one hoop, they should place foods that are good for our bodies. In the other hoop, they should place foods that are good for our teeth. Foods that benefit both physical health and dental health should be placed in the overlapping segments of the hula-hoops. Take time to discuss the fact that certain foods may be highly nutritious but tend to stick to teeth when eaten (i.e., dried fruits, certain breads). Also note that nutritious foods that are high in calcium provide great benefit for teeth and bones. See “Background Information.”
14. Foods that are placed in the intersection of the Venn diagram may be awarded “Blue Ribbons” by students to indicate their nutritional benefits as well as the benefits they offer in the area of dental health.

15. Students can be challenged to select Blue Ribbon foods as a part of school breakfasts and lunches.
16. Begin activity by asking students how they think sugar and acid affect teeth. Using donated teeth, place each tooth in a clear cup. One tooth should be placed in a small amount of regular soda; another in diet soda. Continue the process using milk, water and apple juice. Add a small amount of saliva to each liquid to begin the process. Place cups in a location where they can be observed without danger of contact by students ("Look; don't touch"). Observe teeth daily for up to six weeks. Record observations, making note of the apparent effect sugar has on teeth. Ask students: "How will this activity help you make healthier food selection choices?"
17. For physical activity, have students participate in "Run the Rainbow Challenge: Building a Pyramid."

Materials Provided

- Manipulatives located in "The Farmer Grows a Rainbow-Main Course" lesson
- "American Dental Hygienists' Association Recommendations"
- "Blue Ribbon Pattern"
- "Run the Rainbow Challenge: Building a Pyramid"
- "Food Group Titles"

Materials Needed

- Photos and/or graphic representations of various food items. These can be brought in by students. Food labels work well for this lesson.
- Toothbrush, floss, toothpaste
- Two hula-hoops
- A full size sheet of poster or foam board OR sidewalk chalk
- Laminated food picture cut outs, food group cutout for "Run the Rainbow Challenge: Building the Pyramid"
- Boxes or bags
- 2-5 teeth, clear cups, regular soda, milk, apple juice, water

Discussion Questions

1. What is MyPyramid?
2. What are the different sections of MyPyramid called?
3. Why is it important to be physically active?
4. What will happen to the teeth in the soda, milk, apple juice and water?
5. Why are healthy teeth and gums important? How do you get them?

Related Activities

1. The Food Pyramid Bead Activity by Wisconsin Agriculture in the Classroom located at the end of the “The Farmer Grows a Rainbow-Main Course” lesson.
2. The lesson “Be a Food Explorer” located in the health section of this curriculum guide.
3. The lesson “Build a Burger” located in the health section of this curriculum guide.
4. The lesson “Nature’s Toothbrush” located in the health section of this curriculum guide.
5. The lesson “Food...Can You Handle It?” located in the health section of this curriculum guide.

Book Resources

1. “Growing Colors” by Bruce McMillan
2. “The Milk Group” by Mari Schuh
3. “The Meat and Beans Group” by Mari Schuh
4. “The Vegetable Group” by Mari Schuh
5. “The Grain Group” by Mari Schuh
6. “The Fruit Group” by Mari Schuh
7. “A Fruit and Vegetable Man” by Roni Schotter
8. “Being Active” by Mari Schuh
9. “Make Way for Tooth Decay” by Bobbi Katz
10. “Child’s Play Clarabella’s Teeth” by An Vrombaut
11. “Good for Me and You” by Mercer Mayer

Acknowledgement: This lesson was provided courtesy of North Carolina Agriculture in the Classroom and the United States Department of Agriculture.

Run the Raibow Challenge: Building the Pyramid

Using a poster depicting MyPyramid, review food groups and sample items from each food group with students. Lay out a pyramid shape, using colored hula hoops or sheets of poster board on play space floor. Place "Food Group Titles" inside hoops/boards, matching colors (i.e., orange hula hoop should contain title "Grains.") Place play food or pictures of food items inside Center Circle (see diagram below).

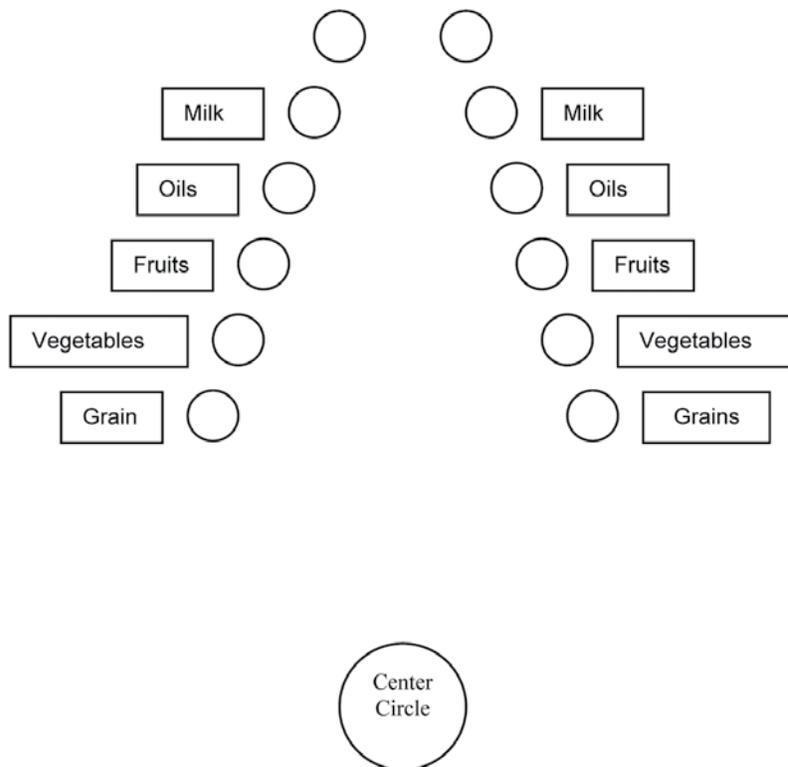
Form two equally sized teams.

At the signal to start the race, the first runner on each team, proceeds to the center circle, picks up a food item, and continues to his/her side of the pyramid placing the food item in the proper circle. He/She runs back and tags the next person in line who repeats the process.

Play continues until all food items/pictures have been placed in a food group circle. After all food items have been placed, the teacher removes any items that were incorrectly placed and returns them to the Center Circle. Using time constraints and students' needs, repeat the process.

It may be necessary to gather and discuss placement of certain items. Make sure students know the proper placement for all food items before ending the class session.

Set up for activity:



Bonus Challenge: To highlight good dental care practices, allow students to simulate flossing with a game of tug-of-war.

American Dental Hygienists' Association Recommendations

Food Choices

The American Dental Association recommends the following for good dental health:

- Breads, cereals, and other grain products, which provide vitamins for healthy growth of teeth
- Dairy products, which provide calcium and vitamin D for strengthening teeth.
- Fruits and vegetables, which provide vitamin C for healthy gums
- Lean meat, fish, poultry, and beans, which provide iron and protein for overall good health, and magnesium for healthy teeth

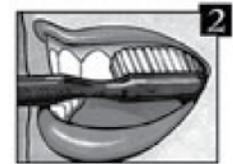
Proper Brushing

Proper brushing is essential for cleaning teeth and gums effectively. Use a toothbrush with soft, nylon, round-ended bristles that will not scratch and irritate teeth or damage gums.

Place bristles along the gumline at a 45-degree angle. Bristles should contact both the tooth surface and the gumline.



Gently brush the outer tooth surfaces of 2-3 teeth using a vibrating back & forth rolling motion. Move brush to the next group of 2-3 teeth and repeat.



Maintain a 45-degree angle with bristles contacting the tooth surface and gumline. Gently brush using back, forth, and rolling motion along all of the inner tooth surfaces.



Tilt brush vertically behind the front teeth. Make several up & down strokes using the front half of the brush.



Place the brush against the biting surface of the teeth & use a gentle back & forth scrubbing motion. Brush the tongue from back to front to remove odor-producing bacteria.



Toothbrush Care

Remember to replace your toothbrush every three to four months. Researchers have established that thousands of microbes grow on toothbrush bristles and handles. Most are harmless, but others can cause cold and flu viruses, the herpes virus that causes cold sores, and bacteria that can cause periodontal infections.

Proper Flossing

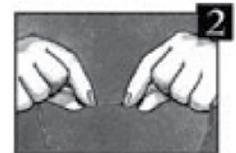
Flossing is an essential part of the tooth-cleaning process because it removes plaque from between teeth and at the gumline, where periodontal disease often begins.

If you find using floss awkward or difficult, ask your dental hygienist about the variety of dental floss holders or interdental cleaning devices that are available.

Wind 18" of floss around middle fingers of each hand. Pinch floss between thumbs and index fingers, leaving a 1" - 2" length in between. Use thumbs to direct floss between upper teeth.



Keep a 1" - 2" length of floss taut between fingers. Use index fingers to guide floss between contacts of the lower teeth.



Gently guide floss between the teeth by using a zig-zag motion. **DO NOT SNAP FLOSS BETWEEN YOUR TEETH.** Contour floss around the side of the tooth.



Slide floss up and down against the tooth surface and under the gumline. Floss each tooth thoroughly with a clean section of floss.



--Illustrations adapted by and used courtesy of the John O. Butler Company--

Source: American Dental Hygienists' Association

Blue Ribbon Pattern



Food Group Titles

Grains

Vegetables

Milk

Oils

Fruits

Meat & Beans