



## Healthy Bodies, Healthy Gardens

### Lesson

#### Goals

Students will learn what nutrition is and why it is important. They will also begin to learn the connection between healthy bodies and healthy gardens.

#### Objectives

Students will discuss what nutrition is and brainstorm ways to keep bodies and gardens healthy. Students will tour the garden to identify what makes a garden healthy.

#### Standards

Science: Life Science

GR.5-S.2-GLE.2

Comprehensive Health: Physical & Personal Wellness in Health

GR.1-S.2-GLE.1

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.4-S.2-GLE.1

GR.5-S.2-GLE.1

GR.6-S.2-GLE.1 & GLE.4

**Total Time** – 60 minutes

#### Materials

- Seasonal fruits & vegetables (or images)
- Healthy snack

#### Did you know?

Breakfast eaters consume more calories in a day than those who skip it, but they are less likely to be overweight. Eating breakfast also improves children's concentration, memory, test scores and school attendance.

#### Vocabulary

concentration

diversity

improve

memory

nutrition

nutrients

seasonal

#### Mentor Texts

- *Roots, Shoots, Buckets, & Boots.* Sharon Lovejoy, 1999.

#### Method

Introduction (15 minutes)

1. Write the words nutrition and nutrient on the board. Ask the class: *What is nutrition?* Nutrition is the study or practice of understanding that what we eat affects our health. *What are nutrients?* Nutrients are the food we eat, including vitamins, minerals, carbohydrates, proteins, fats and water. Nutrients keep our bodies functioning and give us energy to grow, work, play, think and learn.

- a. Discuss with the class: *One way to be healthy is to eat a variety of foods. Nature gives us a wide variety of colors and kinds of food. You can choose to eat fresh, whole foods that are closest to the way they grow. When we learn about nutrition we learn about how to take care of ourselves. A great way of having good nutrition and taking care of ourselves is to eat the food we grow. We can have healthy bodies by having healthy gardens.*
2. Make two columns on an anchor chart. One labeled, “Healthy Bodies” and the other labeled, “Healthy Gardens.” Have the students come up with as many ideas as they can of how to keep a healthy body and how to keep a healthy garden.
  - a. Have the class take five minutes to copy in their journals the lists they created on the anchor chart.
  - b. You could also create a Venn diagram based on the two lists to emphasize that there are overlaps in maintaining a healthy body and garden.

#### **Activity (30 minutes)**

1. Bring the class out to the garden to discuss what healthy seasonal vegetables the garden brings us in the fall.
2. Have the class identify as many plants and vegetables as they can.
  - a. If your garden does not have many vegetables, bring samples or images of seasonal foods. See: [http://www.coloradofreshmarkets.com/crop\\_calendar.html](http://www.coloradofreshmarkets.com/crop_calendar.html) for ideas.
3. Ask the class what they observe in the garden that makes the garden healthy. You might discuss: the diversity of crops, healthy soil amended with compost, crops that are harvested before they are over mature, use of herbs and flowers to repel insects, enough space between plants to allow for air circulation, etc.
4. Have the class draw in their journals their favorite fall crops.

#### **Conclusion (10 minutes)**

Have the class discuss and then journal: *What is nutrition? How can we have good nutrition? How does gardening connect to being healthy?*

#### **Snack (5 minutes)**

Hand out the apples and almond butter. Discuss how apples are a fall fruit, but can easily be stored through the winter to be eaten year round. Discuss with the class: *Apples are rich in dietary fiber, which is good for our digestive systems, and vitamin C. Almond butter with no added sugar is a good source of protein and fiber, keeping us fuller for a longer period of time.*

#### **Assessment Tools**

- Journals
- Participation in brainstorming and plant/vegetable identification

#### **Modifications**

- Have students draw and label a healthy garden in their journal.

**Extensions**

- Have students compare and contrast the vocabulary words “nutrition” and “nutrients” in their journal.

**Apples and Almond Butter**

Try to get organic apples, if possible. Apples are number one for pesticide residue in all fruits and vegetables. Use no sugar added almond butter. You can use other types of nut butter, but be aware of allergies.

- Apples
- Almond butter

Preparation (5 minutes): Cut and core apples. Dip apples in almond butter and enjoy!

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## Be Healthy!

### Lesson

#### Goals

Students will learn how to interpret MyPlate and will be introduced to the idea of growing and eating healthy foods.

#### Objectives

Students will compare healthy and non-healthy behaviors and activities through brainstorming. Students will begin to make connections between eating healthy and growing healthy foods by looking at the food groups outlined in USDA's MyPlate.

#### Standards

Science: Life Science

GR.5-S.2-GLE.2

Comprehensive Health: Physical & Personal Wellness in Health

GR.K-S.2-GLE.1

GR.1-S.2-GLE.1

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.4-S.2-GLE.1

GR.5-S.2-GLE.1

GR.6-S.2-GLE.1 & GLE.4

#### Did you know?

Today, chips and french fries make up half of all of the vegetables children eat. Children who eat fast food tend to weigh more than their peers who do not, even if they are active.

**Total Time** – 60 minutes

#### Materials

- MyPlate nutrition poster
- MyPlate Handouts (Available on DUG's curriculum website: <http://dug.org/school-garden-curriculum/resource-sheets/myplate-information.html>)
- Crayons, markers or colored pencils (optional)
- Journals
- Various seed packets

#### Vocabulary

connections

gardening

MyPlate

recipe

dairy

grains

nutrition

vegetables

fruits

ingredients

protein

#### Mentor Texts

- *Rookie: Grains*. Carol Alexander, 2005.
- *Rookie: Fruits and Vegetables*. Susan DerKazarian, 2005.
- *Rookie: Dairy*. Susan DerKazarian, 2005.
- *Rookie: Proteins*. Justine and Ron Fontes, 2005.
- *Rookie: Fats, Oils and Sweets*. Carol Parenzan Smalley, 2005.

## Background for Teachers

This is a great introductory lesson to get your students to begin thinking about gardening and nutrition and the connection between the two and their own health.

In June 2011, the USDA's nutrition guidance tool changed from MyPyramid to MyPlate. For more information on this new tool, please visit: <http://www.choosemyplate.gov/>. The *My Plate* lesson on our website goes into more detail about this new tool.

[http://dug.org/storage/school-garden-curriculum/My\\_Plate.pdf](http://dug.org/storage/school-garden-curriculum/My_Plate.pdf)

## Method

### Introduction (20 minutes)

1. Begin by explaining that the class will be learning about nutrition and gardening. The focus of the classes will be to learn how to prepare, eat and grow healthy food.
2. Introduce and hand out the garden/nutrition journals to the class. Explain that they will be used for taking notes, writing stories or poetry and collecting recipes. Have each student write on the cover his/her name and Garden Journal (or other appropriately named title).
3. On the board draw two columns labeled "Healthy" and "Not Healthy." Have the class start by brainstorming actions/behaviors that they know are healthy. Then have the students come up with actions/behaviors that they know are unhealthy. Go back and forth between the two sides as students continue brainstorming.
  - a. Encourage them to think real hard by stating a goal: *I challenge you to come up with at least 15 actions/behaviors, can you do it?*
  - b. Let the behaviors and actions they come up with lead to discussion and more creative higher level thinking. Such as asking the class: *What can we do to make watching TV more healthy (exercise during commercials)? Should you use an elevator or take the stairs? Etc.*
4. Transition the activity to MyPlate.
5. Display the brightly colored plate for all the students to see. Discuss the different food groups to help the class understand what grains, dairy, fruits, vegetables and protein entail.
6. Hand out the MyPlate worksheet.
  - a. Have students work in groups or on their own to correctly label the food group sections on the MyPlate worksheet. Students can color the plate if time allows.

### Activity (15 minutes)

1. Tell the students that you can hold at least 200 carrots in one hand, while holding about 100 lettuces in the other. Have the class problem solve on how this would be possible.
2. After the students guess, pull out your seed packets and hold them in your hands explaining that each seed turns into a whole plant—one little lettuce seed can grow into a head of lettuce.
3. Explain to the class that all of our fruits, vegetables and grains are plants that are grown from seeds. Get them excited about seeds by telling them they will get to plant lots of seeds and grow their own fruits and vegetables later in the year. This is a good way to connect eating

healthy and growing healthy food in the garden.

4. Have the students write in their journals about what they learned and what they hope to plant later.

#### **Snack (10 minutes)**

While students are eating, discuss how the snack they are enjoying connects to the discussion on healthy behaviors, MyPlate and growing food in their garden. (*Did they find seeds in the fruit they are eating? What parts of the salad go into which part of MyPlate? Are all of the sections on MyPlate filled up by the snack?*)

#### **Conclusion (15 minutes)**

Have students create their own MyPlate in their journal. The students will put the ingredients of the salad in the proper sections. Students will complete their journal activity with a sentence reflecting on why the Glorious Fresh Fruit Salad was chosen for today's snack.

#### **Assessment Tools**

- Journal
- MyPlate Worksheets
- Participation

#### **Modifications**

- Have students only draw the ingredients of the Glorious Fresh Fruit Salad on their MyPlate worksheet.
- Have students help make the snack by having different teams cut up the various types of fruit (using a butter knife).

#### **Extensions**

- Challenge students to add one more ingredient in each of the MyPlate sections to make the today's salad healthier.
- Discuss and demonstrate how to use measuring cups and spoons (this is an easy and great way to incorporate math into the lesson). Discuss how to read recipes and how to double or reduce recipes is another great way to incorporate math. Challenge students to rewrite the recipe for today's snack by either doubling it or reducing it by half.
- Discuss with the class general cooking and cutting techniques. Show the class how to safely use their knives and teach them cutting terms such as cut, slice, julienne, dice, etc. Have them practice their new vocabulary.

## **Glorious Fresh Fruit Salad**

Kids love fruit. Feel free to experiment with other fruits that may be in season.

- 2 apples
- 1 cup seedless grapes
- 1 banana
- 1 can (16 oz) pineapple chunks, drained
- 1 cup cantaloupe
- 1 kiwi
- ¼ cup low fat sour cream
- 1 cup low fat cottage cheese (creamed)
- 1 cup low fat vanilla yogurt
- 1 Tbsp honey
- 2 tsp limejuice

Preparation (10 minutes): To make the dressing, combine sour cream, cottage cheese and yogurt. Mix well. Blend in honey and limejuice. Peel the banana, kiwi and cantaloupe. Cut all fruit into bite-sized pieces. Combine first five fruits with a little dressing. Garnish with slices of kiwi and serve with extra dressing.

## **Sources**

United States Department of Agriculture. *USDA's MyPlate*. Web. 27 June 2011.

<http://www.choosemyplate.gov/tipsresources/printmaterials.html>.

Mott's Fresh Apples. *Salad Recipes*. Web. 27 June 2011. <http://www.mottsfresh.com/salads.asp>.

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*BE HEALTHY!*

DENVER URBAN GARDENS' SCHOOL GARDEN AND NUTRITION CURRICULUM



## Easy Ways to 5-A-Day

### Lesson

#### Goals

Students will find new ways to add fruits and vegetables to their everyday diets.

#### Objectives

Students will discuss easy ways to add 5-A-Day to commonly eaten meals and prepare a rainbow fruit salad.

#### Standards

*Science: Life Science*

GR.5-S.2-GLE.2

*Comprehensive Health: Physical & Personal Wellness*

GR.K-S.2-GLE.1

GR.1-S.2-GLE.1

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.4-S.2-GLE.1

GR.5-S.2-GLE.2

GR.6-S.2-GLE.4

**Total Time** – 60 minutes

#### Materials

- Copies of meal images (end of lesson)
- Crayons, markers or colored pencils
- Seed catalogues (optional)
- Glue and scissors
- Cooking kits
- Journals

#### Method

**Introduction** (10 minutes)

1. Introduce the activity by talking about the USDA Food Guide Pyramid. Explain to students that they should eat at least five servings of fruit and vegetables each day. Ask if anyone knows what a serving is.
2. One serving is (it is helpful to show what these look like with measuring cups):
  - a. 1 medium-sized fruit
  - b.  $\frac{3}{4}$  cup 100% fruit or vegetable juice
  - c.  $\frac{1}{2}$  cup fresh, frozen or canned fruit (in 100% juice) or vegetables
  - d. 1 cup raw leafy vegetables

#### Did you know?

Bananas are the most popular fruit in the US. Americans eat an average of 28 pounds of bananas per person per year. That equals about 112 bananas per person per year.

Today Americans are consuming 900% more broccoli than 20 years ago.



3. Explain that eating a low-fat diet that includes **five to nine daily servings** of fruits and vegetables is key to developing a healthy lifestyle. Colorful fruits and vegetables provide a wide range of vitamins, minerals, fiber and phytochemicals (phytochemicals are chemical compounds that occur naturally in plants that give fruits and veggies their color, such as beta-carotene), which our bodies use to stay healthy and energetic. They also help us maintain a healthy weight, protect us against the effects of aging and reduce the risk of cancer, heart disease, high blood pressure and other chronic diseases.

#### **Activity (25 minutes)**

1. Ask the class to name fruits and vegetables that they like and eat often. Write their ideas on the board. Have them think about common meals they have and what fruits and vegetables are in those meals.
2. Tell the class: *Today we are going to find out how easy it is to add 5-A-Day to common meals that you and I like to eat.*
3. Hand out the meal images to the students. Have each student (or group of students) draw (or cut and paste images from the seed catalogues) fruits and/or vegetables they would like to add to their food to make a healthy meal. Some ideas are below:
  - a. Pizza: green or red bell peppers, pineapple, broccoli, jalapeños, mushrooms, fresh tomatoes, onions
  - b. Burrito: beans, spinach, red or green bell peppers, mushrooms, zucchini, avocado, tomatoes, cilantro, jalapeños
  - c. Oatmeal: dried fruit, raisins, blueberries, strawberries, bananas
  - d. Sandwich: lettuce, spinach, tomatoes, sprouts, avocado, cucumber
  - e. Spaghetti: green or red bell peppers, zucchini, eggplant, tomatoes, peas, green beans
4. Discuss other ways to make these common foods even healthier: limit the amounts of meat and cheese and choose products made with whole grains.
5. Ask the students: *What were the main points of the exercise?* (Learning to think about eating healthier; learning that fruits and vegetables don't have to be eaten separately but it's easy to add them to things; learning that there are already veggies in many things we are already eating; etc.)

#### **Snack & Conclusion (25 minutes)**

1. Prepare a snack with a variety of colorful fruits (or vegetables) and whole grains. Crunchy Burrito Banditos is attached as a recipe.
2. Discuss with the class or have the students write in their journals: *What are a few easy ways to eat a rainbow every day?*

#### **Assessment Tools**

- Participation
- Journals

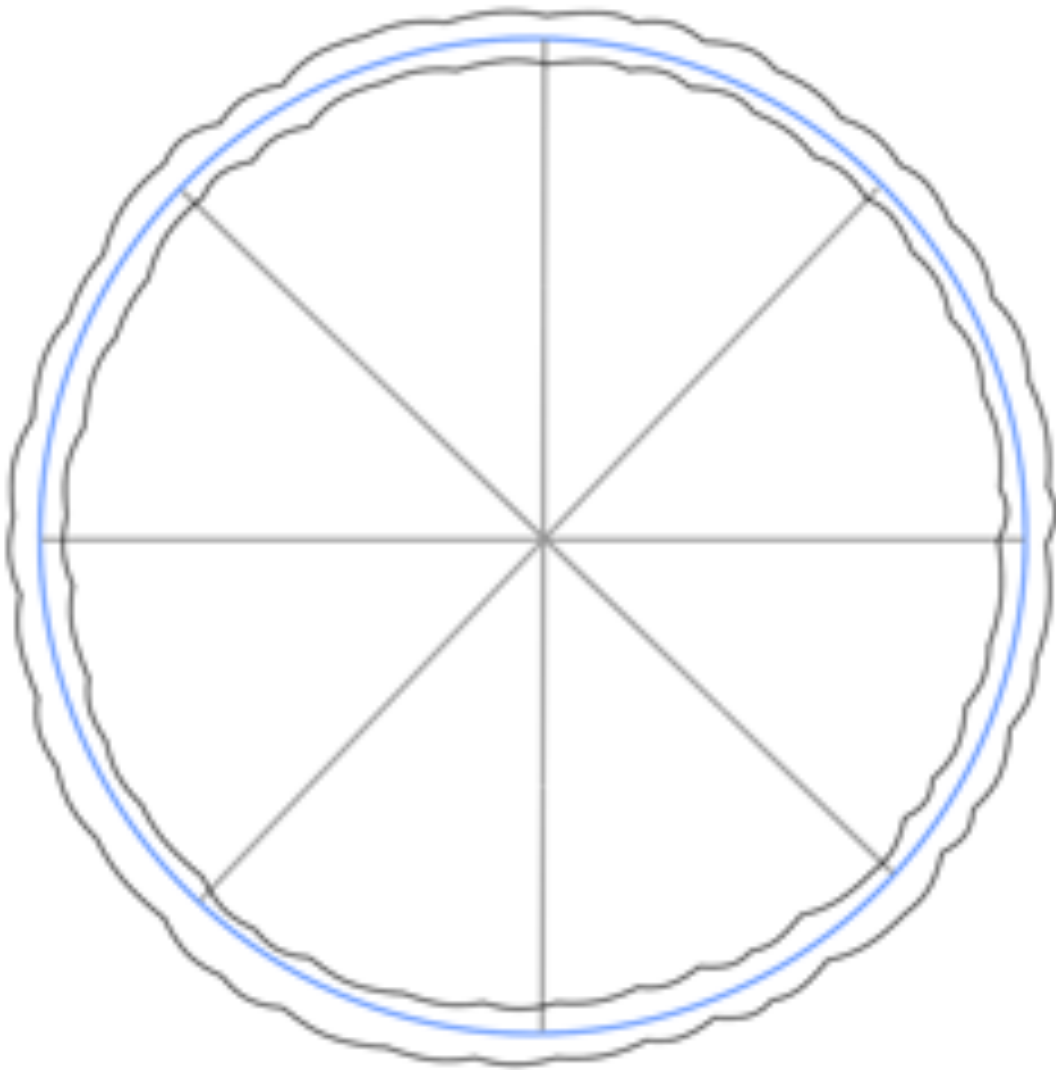
## **Crunchy Burrito Banditos**

- ½ cup shredded carrots
- ½ cup chopped broccoli
- ½ cup chopped cauliflower
- 2 green onions, thinly sliced (optional)
- 4 ounces shredded low fat cheddar cheese
- 4 small whole-wheat tortillas
- 1 cup torn Greenleaf lettuce, bite-size pieces
- ½ cup of your favorite salsa

Preparation (10-15 minutes): In a mixing bowl, combine carrots, broccoli, cauliflower, and onions with cheese. Add the salsa and toss lightly. Place mixture and ¼ cup lettuce down the center of the tortilla. Wrap each tortilla around the vegetable mixture. Cut in half. Provide extra salsa to use as a dip.

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# Pizza



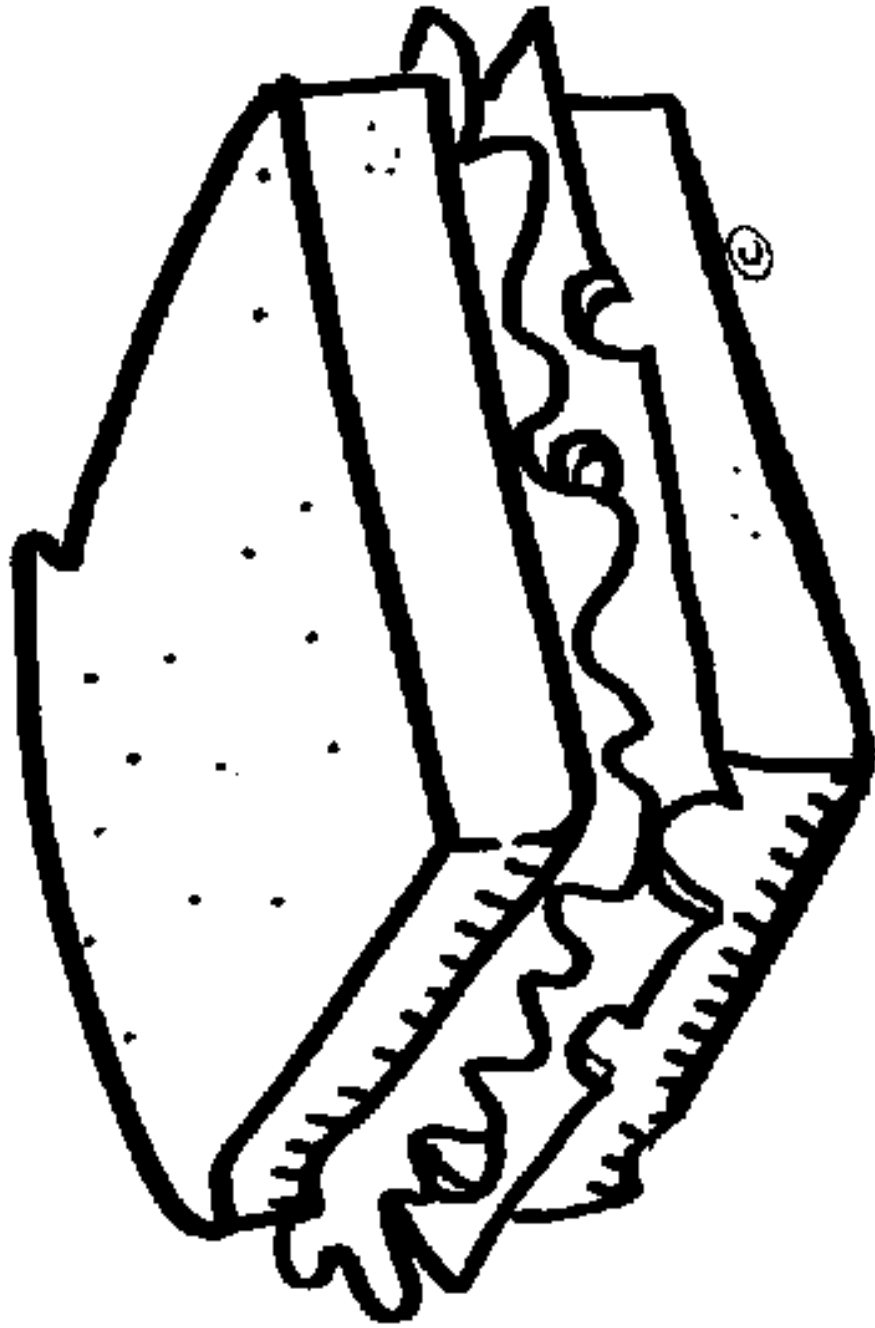


## **Burrito**

# Oatmeal



# Sandwich



**Spaghetti**





## Fun with Fiber

### Lesson

#### Goals

Students will learn about fiber and why they need it.

#### Objectives

Students will discuss and read about fiber, analyze nutrition labels looking for fiber content, and calculate how much fiber they need in a day. Student will also evaluate which type of cereal with high fiber they like the best.

#### Colorado Academic Standards

Science: Life Science

GR.5-S.2-GLE.2

Comprehensive Health: Physical & Personal Wellness in Health

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.5-S.2-GLE.1

GR.6-S.2-GLE.4

#### Did you know?

Food changes when processed and the fiber content may change too. A whole apple with peel has 3.7 g of fiber, an apple without peel has 2.4 g, applesauce has 1.5 g and apple juice has 0 g.

**Total Time** – 60 minutes

#### Materials

- Copies of handouts and recipe (end of lesson)
- Four different types of cereal (or use the attached nutrition labels and skip the taste test)
- Plates
- Calculators
- Journals

#### Vocabulary

body waste

fiber

intestines

calories

healthy weight

whole grains

#### Method

Introduction (10 minutes)

1. Ask the class: *Who knows what fiber is?* Fiber is a nutrient found in many foods such as whole grain breads, dried beans, fruits and vegetables. Our body does not digest fiber; therefore it helps our stomach to feel full without providing any calories. *Why is fiber good for us?* Fiber helps keep our intestines healthy by promoting movement of waste out of our body. Fiber also helps us to maintain a healthy weight by providing a feeling of fullness without calories.
2. If you have covered whole grains, review with them with the class. If not, have a brief discussion about the importance of whole grains and what are whole grains.
3. Go over tips for increasing fiber.



- a. Eat whole fruits and vegetables, with the peel.
- b. Read nutrition labels. Look for good sources of fiber (3g) and excellent sources (5g).
- c. Look for whole grain or whole wheat in ingredient lists.

#### **Activity (25 minutes)**

1. Have the class complete the attached sheet to determine how much fiber they need a day. You may need to help the younger students with their math.
2. Put a little of each cereal on a plate for each student or group of students. Have the students sample four or more types of cereal and fill out the charts at the end of the lesson. It is helpful to put the name of the cereal and the grams of fiber on the board for the class to write down, but you may also want to photocopy the nutrition labels from your cereal boxes and have the class find the grams of fiber themselves.
3. Make sure students understand how to find fiber on a nutrition label. It is labeled dietary fiber and can be difficult for students to find. Have a few students show the class where fiber is on different nutrition labels. Also, make sure they know to look at the grams in the serving not just the Percent of Daily Value.
4. Have students cut and paste the handouts into their journals.

#### **Conclusion (15 minutes)**

Discuss or have the students write in their journals: *What is fiber? Why do we need fiber? How can we increase our fiber? Are any of the foods we grow in the garden high in fiber? How are fiber and whole grains related?*

#### **Snack (10 minutes)**

Have the Fruit Pizza or Banana Split Cereal snack. While eating the snack, discuss the fiber value of the snack ingredients.

#### **Assessment Tools**

- Participation
- Fiber charts and math
- Journals

#### **Modifications**

- Provide students with calculators to help calculate daily fiber intake on Fiber Worksheet. May need to scaffold skill needed to accurately use the calculators.
- Combine with the “What Are Whole Grains?” lesson by cutting the snack preparation from both of them for a full one-hour lesson.

#### **Extensions**

- Give the students a recipe (such as Fruit Pizza) with ingredient analysis. Have the students calculate the amount of fiber per serving.
- Have the students write in their journals: *Are any of the foods we grow in the garden high in fiber? How are fiber and whole grains related?*

### **Suggested Products**

- Cheerios
- Kix
- Special K
- Quaker Oatmeal Squares
- Raisin Bran
- Shredded Wheat (without frosting)
- Kashi Autumn Wheat

### **Fruit Pizza**

- Whole wheat pita bread or English muffins
- 8 oz. light cream cheese (or Neufchatel cheese)
- 1 banana, peeled and sliced
- 4 cups of assorted fruit (pineapples, blueberries, strawberries, honeydew, cantaloupe, pitted cherries, peaches, etc)

Preparation (15 minutes): Spread cream cheese over pita or a half of English muffin. Arrange the fruit on the pizza in a design you desire. Be creative! If using pita bread, cut into wedges.

### **Banana Split Cereal**

Who said banana splits were only for desert? Yogurt, cereal and fruit combine to make a powerhouse breakfast!

- 1 small ripe banana
- ½ cup fresh blueberries or other fresh fruit
- ½ cup nonfat or low-fat vanilla yogurt
- ½ cup low sugar cereal (Cheerios, Wheaties, Grape Nuts, Kashi Autumn Wheat)

Preparation (10 minutes): Peel the banana and slice it lengthwise (from tip to tip). Wash the blueberries or other fresh fruit. If using other fruit beside blueberries, cut them into small pieces. Spoon the yogurt in a mound in the center of a cereal bowl. Sprinkle the cereal on top of the yogurt. Arrange the banana halves on either side of the yogurt. Sprinkle the top with the blueberries or other fruit. Or yogurt and fruit can be layered in a cup with cereal sprinkled on top.

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How much fiber do you need daily?

Consuming fiber helps to keep our stomach full making it helpful in achieving and maintaining a healthy weight. The recommended amount of fiber for children is 5 grams of fiber plus the your age.

For example, if Billy is 8 years old, he needs to eat 8 + 5 grams of fiber every day, or 13 grams of fiber.

Your age in years: \_\_\_\_\_

+ 5 grams of fiber

= \_\_\_\_\_ grams of fiber per day

Taste Test

Name of Cereal	Grams of Fiber	Did you Like it:
		Yes or No
		Yes or No
		Yes or No
		Yes or No

## High Fiber Foods

- Fresh fruit with their peels (apples, pears, peaches, berries, etc)
- Vegetables (broccoli, carrots, cauliflower, cabbage, avocados, peas, spinach, etc)
- Nuts and nut butters (almonds, cashews, pistachios, sunflower seeds, peanuts, etc)
- Bananas
- Oranges
- Raisins
- Beans
- Oatmeal
- Popcorn
- Multi grain cereals
- Whole-grain bread
- Wheat crackers

## Ways to Increase Your Fiber

- **Eat Breakfast:** Enjoy a high-fiber cereal, whole-wheat toast, oatmeal and fresh fruit to start your day out right.
- **Eat Fruit:** An easy, delicious snack can be fresh or dried fruit. Keep the peel on to get the most fiber out of your snack.
- **Become a Topper:** Don't forget the fiber-filled toppers like: bananas, blackberries, or hummus while enjoying cereal, oatmeal, or whole-wheat toast.
- **Keep the Veggies:** Carrots, celery, snap peas are easy high-fiber snacks. It is easy to add vegetables to your sandwiches or burritos.

# Cheerios



## Nutrition Facts

Serving Size 1 cup (30g)

### Amount Per Serving

**Calories** 110      Calories from Fat 20

**%Daily Value\***

**Total Fat** 2g      **3%**

Saturated Fat 0g      **0%**

Trans Fat 0g

**Cholesterol** 0mg      **0%**

**Sodium** 210mg      **9%**

**Total Carbohydrate** 22g      **7%**

Dietary Fiber 4g      **16%**

Sugars 2g

**Protein** 4g

Vitamin A 10%      •      Vitamin C 10%

Calcium 10%      •      Iron 60%

\* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

		Calories: 2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carb		300g	375g
Dietary Fiber		25g	30g

## Nutrition Facts

Serving Size 1/2 cup dry (100g)

### Amount Per Serving

**Calories** 370      Calories from Fat 60

**%Daily Value\***

**Total Fat** 7g      **11%**

Saturated Fat 1g      **5%**

Trans Fat 0g

**Cholesterol** 0mg      **0%**

**Sodium** 0mg      **0%**

**Total Carbohydrate** 68g      **23%**

Dietary Fiber 9g      **36%**

Sugars 1g

**Protein** 14g

Vitamin A 0%      •      Vitamin C 0%

Calcium 6%      •      Iron 25%

\* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

		Calories: 2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carb		300g	375g
Dietary Fiber		25g	30g



<b>Nutrition Facts</b>	
Serving Size 3/4 cup (30g)	
Amount Per Serving	
<b>Calories</b> 120	Calories from Fat 10
<b>%Daily Value*</b>	
<b>Total Fat</b> 1g	<b>2%</b>
Saturated Fat 2g	<b>10%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 150mg	<b>6%</b>
<b>Total Carbohydrate</b> 26g	<b>9%</b>
Dietary Fiber 1g	<b>4%</b>
Sugars 12g	
<b>Protein</b> 2g	
Vitamin A 10%	Vitamin C 25%
Calcium 0%	Iron 35%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:	
	Calories: 2,000    2,500
Total Fat	Less than 65g    80g
Sat Fat	Less than 20g    25g
Cholesterol	Less than 300mg    300mg
Sodium	Less than 2,400mg    2,400mg
Total Carb	300g    375g
Dietary Fiber	25g    30g

<b>Nutrition Facts</b>	
Serving Size 1 cup (28g)	
Amount Per Serving	
<b>Calories</b> 100	Calories from Fat 0
<b>%Daily Value*</b>	
<b>Total Fat</b> 0.5g	<b>1%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 130mg	<b>5%</b>
<b>Total Carbohydrate</b> 25g	<b>8%</b>
Dietary Fiber 3g	<b>12%</b>
Sugars 12g	
<b>Protein</b> 1g	
Vitamin A 10%	Vitamin C 25%
Calcium 0%	Iron 25%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:	
	Calories: 2,000    2,500
Total Fat	Less than 65g    80g
Sat Fat	Less than 20g    25g
Cholesterol	Less than 300mg    300mg
Sodium	Less than 2,400mg    2,400mg
Total Carb	300g    375g
Dietary Fiber	25g    30g



# Shredded Wheat



## Nutrition Facts

Serving Size 2 biscuits (47g)  
Servings Per Container 9

Amount Per Serving	2 Biscuit	1 Biscuit
<b>Calories</b>	160	80
Calories from Fat	10	5
<b>% Daily Value**</b>		
<b>Total Fat</b> 1g*	<b>2%</b>	<b>1%</b>
Saturated Fat 0g	<b>0%</b>	<b>0%</b>
Trans Fat 0g		
Polyunsaturated Fat 0.5g		
Monounsaturated Fat 0g		
<b>Cholesterol</b> 0mg	<b>0%</b>	<b>0%</b>
<b>Sodium</b> 0mg	<b>0%</b>	<b>0%</b>
<b>Potassium</b> 180mg	<b>5%</b>	<b>3%</b>
<b>Total Carbohydrate</b> 37g	<b>12%</b>	<b>6%</b>
Dietary Fiber 6g	<b>24%</b>	<b>12%</b>
Soluble Fiber <1g		
Insoluble Fiber 5g		
Sugars 0g		
Other Carbohydrate 31g		
<b>Protein</b> 5g		

## Nutrition Facts

Serving Size 59 g

Amount Per Serving	
<b>Calories</b> 187	Calories from Fat 13
<b>% Daily Value*</b>	
<b>Total Fat</b> 1g	2%
Saturated Fat 0g	1%
Trans Fat	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 289mg	12%
<b>Total Carbohydrate</b> 45g	15%
Dietary Fiber 7g	29%
Sugars 17g	
<b>Protein</b> 6g	
Vitamin A 15%	Vitamin C 8%
Calcium 3%	Iron 79%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.



## How Much?

### Lesson

#### Goals

To introduce students to the importance of portion control by reading nutrition labels and measuring portions.

#### Objectives

Students investigate serving sizes on nutrition labels, measure amounts of food based on serving sizes and calculate nutrition information based on serving sizes. Students will also determine how much exercise is needed to burn off a set amount of calories consumed.

#### Standards

*Science: Life Science*

GR.5-S.2-GLE.2

*Comprehensive Health: Physical & Personal Wellness*

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.4-S.2-GLE.1

GR.5-S.2-GLE.1

GR.6-S.2-GLE.4

**Total Time** – 60 minutes

#### Materials

- Box of cereal
- Variety of sizes of bowls
- Measuring cup
- Handouts (end of lesson)
- Journals

#### Method

**Introduction** (5 minutes)

1. Begin the class with a review of the nutrition label or other nutrition topics you may have covered. Reiterate how important it is to look at the ingredient list and focus on eating whole grains and limiting sugars and fats. Point out the serving size section of the nutrition label and discuss that in addition to **WHAT** you eat, you have to also be aware of **HOW MUCH** you eat.
2. Remind the class that calories are like fuel, but if we consume too many we begin to gain weight. To prevent this from happening we need to burn off the calories with exercise.

**Activity** (25 minutes)

1. Set up a table in the front of the room with a box of cereal and a variety of different sizes of bowls.

#### Did you know?

Obesity is among the most serious threats to Americans' health, with rates of obese and overweight children tripling since the 1960s. The main cause is too many calories consumed and not enough burned off. The solution: eating less and exercising more.



2. Describe a situation: "You just rode your bike home from school and you go into the kitchen to get a snack. You see a box of cereal and grab a bowl and pour yourself some cereal."
3. Have a volunteer from the class come up and pick a bowl and pour how cereal he/she would realistically eat. Have two more volunteers come up and do the same.
4. Now measure out each student's cereal. Compare to the serving size on the cereal box. Have the class calculate how many calories, sugar, fat, etc. based on how much cereal was poured by each student.
5. Write the amount of calories that were consumed by the largest serving on the board.
6. Have the class do jumping jacks for one minute. Tell them that they burned about 3 calories. Have them jump for another minute. How many calories have they consumed now? Have the class calculate how long they would have to jump to burn off all of the calories consumed by the largest serving of cereal.
7. Write the Order Size Guide (end of lesson) on the board with blanks for actual categories. Have students work in groups to estimate how many calories each item contains for a small and large serving.
8. Then display the actual calories. Discuss with the class what their estimates were and why the actual calories may differ from their estimates. Remind the class that they should be consuming between 1800 and 2000 calories per day.
9. Have the students calculate how many minutes you would need to do jumping jacks to burn off a small meal versus a large meal.
10. Handout the Portion Size Guide and review with the class.

#### **Snack & Conclusion (20 minutes)**

1. Have the class journal or discuss why it is important to look at serving sizes. Ask the class to brainstorm some strategies to help them with portion control (use smaller plates and cups, read nutrition labels, order small, avoid supersize, share large entrees, avoid eating directly out of the bag or container, avoid eating while watching TV, etc).
2. Have the students prepare their California Wraps or another healthy snack. Discuss the benefits of the various ingredients.

#### **Assessment Tools**

- Participation
- Math
- Journals

**Possible Modifications and Extensions**

- Feel free to do this activity with other types of food (e.g. chips, Cheetos, juice).
- Do the math of how many minutes of jumping jacks you need for other items, such as their lunch or breakfast that day.

**Order Size Guide**

The difference between a small meal and large (supersized) meal could easily double the amount of calories.

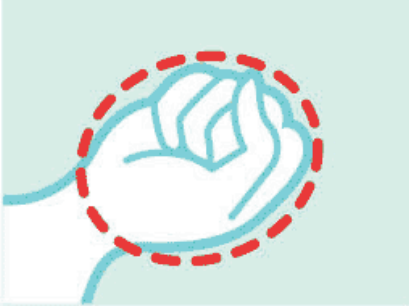
	LARGE	SMALL
French Fries	570	250
Burger	730	260
Soda	310	150
Cookie	470	110
Ice Cream	560	230
Totals	2640	1000

**California Wrap**

- Cheddar cheese, grated
- Whole wheat flour tortillas
- Carrots, shredded
- Red or yellow bell peppers, sliced thinly
- Avocados, peeled and sliced
- Baby spinach leaves
- Salsa

Preparation (10 minutes): Spread the avocado over the tortilla within ½” of the edges. Arrange all the filling ingredients in a row along the center of the tortilla. Roll the tortilla up as tightly as possible to enclose the filling without tearing the tortilla.

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Hand Symbol	Equivalent	Foods	Calories
	<b>Fist</b> 1 cup	Rice, pasta Fruit Veggies	200 75 40
	<b>Palm</b> 3 ounces	Meat Fish Poultry	160 160 160
	<b>Handful</b> 1 ounce	Nuts Raisins	170 85
	<b>2 Handfuls</b> 1 ounce	Chips Popcorn Pretzels	150 120 100
	<b>Thumb</b> 1 ounce	Peanut butter Hard cheese	170 100
	<b>Thumb tip</b> 1 teaspoon	Cooking oil Mayonnaise, butter Sugar	40 35 15



## Nutrition Detectives

### Lesson

#### Goals

Students will learn how to read nutrition labels in order to make healthy food choices.

#### Objectives

Students will learn clues to look for healthy food when reading nutrition labels and will play a game where they practice reading labels. Students will prepare a quick snack.

#### Standards

*Comprehensive Health: Personal & Physical Wellness in Health*

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.4-S.2-GLE.1

GR.5-S.2-GLE.1

GR.6-S.2-GLE.1 & GLE.4

#### Did you know?

In the past decade, as consumption of high fructose corn syrup has soared, diabetes has increased by a staggering 90% and 8% or more of Americans now have diabetes.

#### Background for Teachers

See information on nutrition labels at the end of this lesson.

**Total Time** – 60 minutes

#### Materials

- “The 5 Clues for Nutrition Detectives” (write these on the board)
- Copies of a sample nutrition label (end of lesson)
- Various packaged food products that may be commonly eaten by the class (cereals, chips, bread, crackers, juices, peanut butter, etc)—provide healthy and unhealthy examples
- Journals

#### Method

**Introduction** (10 minutes)

1. Begin by telling the class: *Who knows what detectives do? Today you are going to learn how to be nutrition detectives. You will learn special nutrition spy skills to help you find the truth about food and become clued-in to health. You are going to learn about 5 clues only nutrition detectives know that will enable you to know what foods are good for you and what foods are not. You may have been making clueless choices before, but you will be making clued-in choices from now on. A nutrition detective is clued-in to health and makes clued-in food choices, and leaves the clueless choices behind.*
2. Have the five clues up on the board and copies of a sample nutrition label and box of cereal for the class to look at while going over the five clues. See “The 5 Clues for Nutrition Detectives” at the end of the lesson.
3. Tell the class: *A nutrition detective knows how to see past food package deceptions and uses*

*clues to get to the truth. Who knows what it means to say “don’t judge a book by its cover?” (What something looks like on the outside may not be anything like what it is like on the inside.) As you are going to see in the first clue used by a nutrition detective, sometimes you cannot judge a packaged food by its cover, either.*

*Food labels can be tricky because they do not say, “This food has a lot of sugar, salt, and fat.” They tend to use confusing names. For example, the worst kind of fat (trans fat) appears on ingredient lists as “partially hydrogenated oil.” (Write on that board: trans fat = partially hydrogenated oil.) Unlike some healthier types of fats that you can eat, such as olive oil, partially hydrogenated oil is an artificial kind of fat that is like poison to your body—it damages your blood vessels and heart. When you see this in a food, step away from the box and no one will get hurt.*

*Does anyone know what high fructose corn syrup is? (High fructose corn syrup is a long and complicated name for added sugar. It is an artificial type of sugar.) Its long, complicated name may fool people who will be eating food with lots of added sugar and not even know it. But you will be a nutrition detective, so you will not be fooled. High fructose corn syrup means added sugar.*

*Finally, now that you know about artificial fat and artificial sugar, you will also want to look out for other artificial ingredients, like flavorings and colorings. Remember, the food you eat makes up the building blocks for who you are. Do you want to grow out of artificial ingredients?*

*Now that we know what to look out for, where do we find these clues? You have to be a good spy, and look everywhere to find the truth on a food package. The front of the package wants you to think that if you eat this food you will be a superstar or a famous athlete. Maybe you will be, but not because of this food. You will find the clues you need to get to the truth, the nutrition facts and ingredient list on the side.*

#### **Activity (30 minutes)**

1. Divide the class into groups of 4-5 students each.
2. Each team is assigned 3-5 products (see the end of the lesson for ideas for products).
3. Some of the products are *clueless*, namely those that are highly processed, contain partially hydrogenated oils and high fructose corn syrup, have added salt and flavoring, and in the case of crackers, cereal and breads have 1g or less of fiber. Others are *clued-in*, namely those with more wholesome products containing no trans fats or high fructose corn syrup, more fiber, and less added salt, sugar and flavorings.
4. The students’ mission is to apply the five clues they just learned to their products. Have them start to divide items into *clued-in* and *clueless* choices. While the students are dividing, offer comments, guidance, feedback and cheering on as needed to the different groups. Make the students feel that they are participating in an exciting mission.
5. After ten minutes, each team designates two delegates to represent their products and report their findings to the whole group, one team at a time. They each come up to place their *clued-in* and *clueless* items on two separate tables upfront, so that by the end, all the *clued-in* items

in all the categories are stacked together separately from all the *clueless* items. Make any necessary corrections and recognize each team for their successes.

Use this opportunity to highlight any deceitful wording on the front of the packages on the *clueless* table, and how, as great nutrition detectives, they knew better and were not fooled. Really emphasize how the products are marketed towards youth. Have the class point out what makes the item attractive to them (colors, games, cartoons, etc).

### **Snack & Conclusion (20 minutes)**

1. Use the ingredients from the *clued-in* side for a quick healthy snack, such as peanut butter and jelly on whole grain bread or apple butter on whole grain crackers or hummus on whole grain pita, bread, etc. Or see attached recipe for a broccoli garden salad.
2. Have the class write in their journals about the experience of becoming a food detective and what surprised them the most.

### **Assessment Tools**

- Participation
- Journals
- Team work

### **Suggested Products**

- Cereals
  - Unhealthy: Trix, Froot Loops, Apple Jacks
  - Healthy: Cheerios, Wheat Chex
- Snacks
  - Unhealthy: Hot Cheetos, mini donuts, Jell-o, Pop Tarts, crackers
  - Healthy: Whole grain crackers, sugar-free peanut butter, no sugar added jelly/jam
- Breads
  - Unhealthy: White, “wheat”
  - Healthy: Whole grain bread, whole grain pitas
- Drinks
  - Unhealthy: Sunny-D
  - Healthy: 100% orange juice

### **Possible Modifications and Extensions**

- There is a lot of information in this lesson. We often recommend breaking it into two lessons to make sure the students are grasping all of the concepts.
- Turn the above activity into a game, where the teams are timed.
- Consider giving each team a category of food (cereals, snacks, breads, drinks, etc) with unhealthy and healthy options.
- For younger groups of students (2<sup>nd</sup> and 3<sup>rd</sup> graders), consider putting them in pairs and giving each pair one food item to look at.

## **The 5 Clues for Nutrition Detectives**

### **1. Don't be fooled by THE BIG LETTERS in the front of the package.**

Look for the itty-bitty letters on the food label instead!

### **2. The first ingredient is always the biggest!**

The ingredients are always listed in the order of quantity – the food is mostly made up of the ingredients that come first.

### **3. Avoid partially hydrogenated oil and high fructose corn syrup!**

### **4. Avoid foods with a long ingredient list!**

Look for shorter ingredient lists because these foods will be more nutritious.

### **5. Fiber is your friend, so look out for whole grain imposters!**

Identify products made of whole grains (breads, cereals, cereal bars and crackers). High-fiber grain products have at least 2 grams of fiber per 100 calories. Products that have less fiber or do not say “whole grain” on the package are whole grain imposters.

## Nutrition Labels

Nutrition labels provide basic information about the foods you eat, allowing a person to determine the amount of energy, fat & specific nutrients that are in a food. Important data includes:

- **Serving Size:** The amount of a food that an average person might eat.
- **Serving Per Container:** The number of servings that are in the package.
- **Calories:** The amount of energy per serving.
- **Calories from Fat:** The number of calories that come just from fat. To figure out the percent of calories from fat, divide the calories from fat by the total number of calories per serving. Example: calories from fat (30) divided by calories per serving (90) = 33%.
- **% Daily Value:** The numbers down the right side of the Nutrition Facts panel are the percentage of the recommended amount of energy and nutrients that are provided per serving. Values of 5% or less are considered low, from 5-19% are medium & 20% or higher are considered high.
- **Cholesterol:** A fat-like substance found only in animal products. Eating too much cholesterol can raise our risk of developing heart disease; try to consume no more than 300 milligrams per day.
- **Sodium:** Often called “salt”. For some people, eating large amounts of sodium may lead to high blood pressure. Canned and processed foods often have higher amounts of sodium than unprocessed foods. Try to limit the amount of sodium in your diet to 2,400 milligrams per day. This is equal to about 2 teaspoons of salt daily.
- **Total Carbohydrate:** Carbohydrates are found in foods like bread, pasta, potatoes, fruits and vegetables. Total carbohydrates include dietary fiber, starches and sugars. Carbohydrates provide your body with the energy you need to move and be active. They also help keep your lungs, heart, and brain working.
- **Dietary Fiber:** Also called “roughage” and is found in the skins of fruits, vegetables, beans and whole grains. Fiber is the part of plants your body can’t digest. Choosing foods high in fiber can help lower the risk for heart disease and cancer. To figure out how much fiber you need, add 5 to your age (for children and teenagers). For adults, aim for at least 25 grams of fiber daily.
- **Sugars:** Includes natural sugars, such as those found in fruits, juices and milk products, and added sugars, which are often found in candy and soda.
- **Protein:** Our bodies need this nutrient for growth, repair of body tissues, and for general maintenance. Animal products like meat, milk and eggs and vegetable products like beans, nuts and nut butters are rich sources.
- **Vitamin A:** Helps us see at night, is needed for bone and skin growth & helps our bodies fight disease. Dark orange & dark green fruits & vegetables are rich sources.
- **Vitamin C:** Helps the body to fight infections & heal wounds. May help prevent some diseases like cancer & heart disease. Oranges, kiwi fruit, tomatoes, broccoli, spinach & peppers are rich sources.
- **Calcium:** Promotes development of strong bones and teeth.
- **Iron:** Helps carry oxygen throughout the body.



### **Broccoli Garden Salad**

Try this colorful salad for lunch or dinner. The carrots, apples and nonfat vanilla yogurt add sweetness while the peanuts add a nice crunch. Serving size 1 cup.

- 3 cups broccoli florets
- 1 cup grated carrots
- 1 cup sliced cauliflower
- 1 cup chopped apples
- 1/4 tsp ground cinnamon
- 1 cup nonfat light vanilla yogurt
- 1/4 cup roasted chopped peanuts (or pre-shelled sunflower seeds)
- 1/2 cup raisins
- 1/2 cup sliced green onions (optional)

Preparation (10 minutes): Toss all ingredients together in a large mixing bowl. Refrigerate until ready to serve, up to 6 hours. Serve chilled. You can garnish this lovely salad with a sprinkle of ground cinnamon and some green onions.

### **Sources**

- Seagraves, Randy and Lisa Whittlesy. *Junior Master Gardener: Golden Ray Series—Health and Nutrition from the Garden*. Bryan, TX: Texas Cooperative Extension, 2001.
- Evers, Connie Liakos. *Fun with Brocc & Roll*. 24 Carrot Printing, 2007.
- Recipe: <http://www.communicatingfoodforhealth.com>

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## Reading a Nutrition Label

Sample Macaroni and Cheese Label

1. Look at Servings per Container

2. Check Calories

3. Limit Fat, Cholesterol and Sodium

4. Get Enough of These Nutrients and Dietary Fiber

5. Footnote

<b>Nutrition Facts</b>			
<b>Serving Size 1 cup (228g)</b>			
<b>Servings Per Container 2</b>			
<u>Amount Per Serving:</u>			
<b>Calories</b> 250	Calories from Fat 110		
<b>% Daily Value*</b>			
<b>Total Fat</b> 12g			18%
Saturated Fat 3g			15%
Trans Fat 3g			
<b>Cholesterol</b> 30mg			10%
<b>Sodium</b> 670mg			25%
<b>Potassium</b> 700mg			20%
<b>Total Carbohydrate</b> 31g			10%
Dietary Fiber 0g			0%
Sugars 5g			
<b>Protein</b> 5g			
<hr/>			
<b>Vitamin A</b>			4%
<b>Vitamin C</b>			2%
<b>Calcium</b>			20%
<b>Iron</b>			4%
*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.			
	<b>Calories:</b>	<b>2,000</b>	<b>2,500</b>
Total fat	Less than	65g	80g
Sat fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

**Notes:**

- Always remember to see how many servings there are per container. If you are eating more than one serving all of your other amounts will increase.
- For % Daily Value: 5% or less is Low, 20% or more is High.
- Sodium is another word for Salt.
- To find Dietary Fiber (also referred to as Fiber) go the far column. Follow the column down to the last percentage in the middle box. It is right below Total Carbohydrate.



## What Are Whole Grains?

### Lesson

#### Goals

Students will understand what whole grains are, why they should eat them and how to prepare a healthy snack with whole grains.

#### Objectives

Students will discuss what whole grains are using MyPlate and pictures of whole grains. Students will prepare a healthy snack using whole grain rolls.

#### Colorado Academic Standards

*Science: Life Science*

- GR.2-S.2-GLE.2
- GR.5-S.2-GLE.1
- GR.5-S.2-GLE.2

*Comprehensive Health: Physical & Personal Wellness in Health*

- GR.2-S.2-GLE.1
- GR.5-S.2-GLE.1
- GR.6-S.2-GLE.4

**Total Time** – 60 minutes

#### Materials

- MyPlate
- Examples of whole grains (dried corn, oats, wheat berries, brown rice, quinoa, etc.)
- Wheat bran
- Paper towels
- Plastic bags
- Pictures of whole grains and the plants they come from

#### Did you know?

A food's color is not helpful in identifying whether it contains whole grain ingredients. Dark or brown bread is often a whole grain food, but it may just have molasses or caramel food coloring added. Alternatively, whole grain foods may be light in color, such as those made from oats.

Only 1 in 10 Americans eat the recommended amount of whole grains (3 servings).

#### Background for Teachers

Whole grains are higher in fiber and about a dozen vitamins and minerals than enriched white flour. Fiber is found only in plants, in the non-digestible outer coating of grains (the bran layer), fruits and vegetables. Examples of whole grains are wheat, oats, corn, barley and rice. Grains are members of the grass family and germinate with one cotyledon (they are monocots). Processed grains (white, wheat or enriched bread) began life as whole grains but had their bran layer removed (which also removes many of the vitamins and minerals) in the manufacturing process. They then need to be enriched with added nutrients before they can be sold.

Follow up this lesson with the Fun with Fiber lesson:

[http://dug.org/storage/school-garden-curriculum/Fun\\_with\\_Fiber.pdf](http://dug.org/storage/school-garden-curriculum/Fun_with_Fiber.pdf).

## **Method**

### **Introduction** (15 minutes)

1. Display MyPlate to the class and review the food groups. Remind the class that half of their grains should be whole grains. Ask the class if they know what whole grains are.
2. Discuss the information in the background section. Start with discussing what whole grains are and why they are beneficial to eat. Make sure to emphasize the importance of eating fiber and the vitamins and minerals found in the bran layer.

### **Activity** (25 minutes)

1. Display or hand out the image of the wheat kernel. Talk about each part of the kernel (the bran layer, the endosperm and the germ) and the different components of each (bran-fiber, endosperm-carbohydrates and germ-vitamins and fats).
2. Pass around examples of whole grains so the class has a chance to touch and smell them. Bringing in examples of the actual grains is great because it gives the students a chance to see them in their raw form. While talking about each grain, display images of that grain growing, so students have an understanding of what each plant looks like.
3. Explain that grains are examples of monocotyledons, which means they have one seed leaf. Compare this to a dicotyledon (beans), which have two seed leaves. Explain to the class that they will learn the difference between the two through a germination experiment.
4. Put a few wheat seeds in a moist paper towel. Make sure this is flat and put inside a sealable plastic bag. Do the same with a couple of beans. Each day have a student open the bag and gently blow on the seeds. The wheat and beans should sprout within one week. Make sure all the students see the difference between the two types of sprouts.

### **Conclusion** (5 minutes)

Have students write a list of whole grains in their journals.

### **Snack** (15 minutes)

Have students assemble their Boo-Wiches or Fruit Rice Cakes. Emphasize the difference in whole grains versus refined grains.

### **Assessment Tools**

- Journals
- Presentation of Boo-Wiches or Fruit Rice Cakes

### **Modifications**

- Make this a two-day lesson with the extensions below and use both recipes.

### **Extensions**

- Discuss the origins of the various grains and point it out on the map.

- Discuss the process of growing and processing of different grains. Consider showing pictures of grain mills, mortar and pestle or other grinding mechanisms.

### **Supplemental Materials**

- Wheat images: [http://en.wikipedia.org/wiki/File:Wheat\\_close-up.JPG](http://en.wikipedia.org/wiki/File:Wheat_close-up.JPG)
- Corn images: <http://en.wikipedia.org/wiki/File:ZeaMays.jpg>
- Oats images: [http://en.wikipedia.org/wiki/File:Avena\\_sativa\\_L.jpg](http://en.wikipedia.org/wiki/File:Avena_sativa_L.jpg)
- Rice images: [http://en.wikipedia.org/wiki/File:US\\_long\\_grain\\_rice.jpg](http://en.wikipedia.org/wiki/File:US_long_grain_rice.jpg)
- Quinoa images: [http://en.wikipedia.org/wiki/File:Chenopodium\\_quinoa\\_in\\_flower.jpg](http://en.wikipedia.org/wiki/File:Chenopodium_quinoa_in_flower.jpg)

### **Boo-Wiches**

These sandwiches give students a chance to get creative with their food, while eating a healthy low-fat, high-fiber snack.

- Whole grain rolls
- Low-fat cream cheese or hummus
- Condiments of choice (salsa, ketchup, etc.)
- Various vegetables (lettuce, olives, celery, cucumbers, carrots, tomatoes, cabbage, etc.)
- Herbs for decoration (dill, parsley, cilantro, etc.)

Preparation (10 minutes): Cut each roll in half and spread the cream cheese on one side. Now get creative! Give it a ghoulish touch by using the garnishes to make faces. What do you have to make eyes? Olives work great, especially pimento-filled green olives sliced in half. Carrots cut in rounds about 1/4 inch thick will do the trick. What about hair? Many herbs will fit the bill and add a touch of flavor, too.

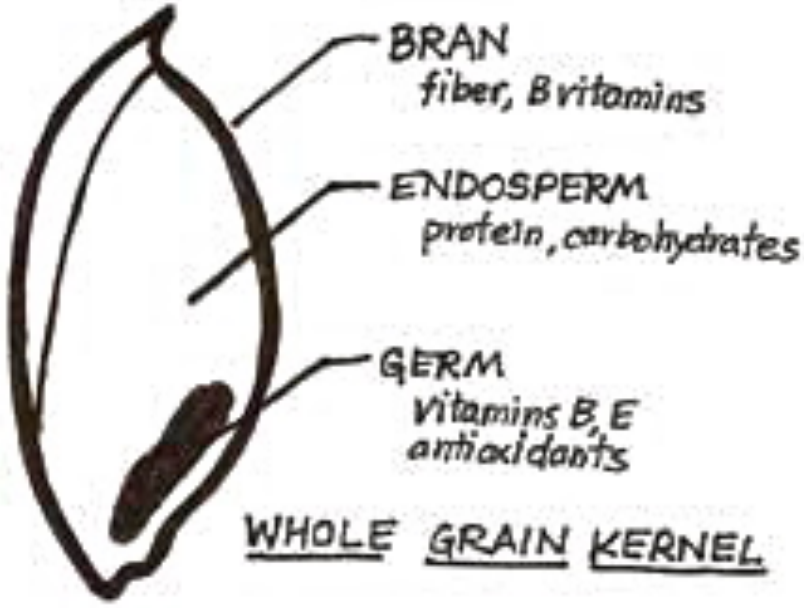
### **Fruit Rice Cakes**

This snack is a good source of B vitamins, fiber and protein with added antioxidants from the berries.

- Whole grain rice cakes
- Natural almond butter (no added sugar)
- Preserves, such as strawberry or raspberry (use a variety that is sweetened with plain fruit juice)
- Fruit, such as raspberries, banana slices or blueberries

Preparation (10 minutes): Spread each rice cake with almond butter and fruit preserves of your choice. Decorate with a few pieces of fruit.

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WHOLE GRAIN KERNEL