



Cooking Club Lesson Plan

Vegetables

Grades 6-12

I. Lesson Objectives:

- A. Students will discuss the role of the various nutrients found in vegetables.
- B. Students will state the health benefits of eating a variety of vegetables.
- C. Students will identify the appropriate vegetable subgroup for named vegetables.

II. Behavior Outcomes:

- A. Make half your plate fruits and vegetables, at least half your grains whole grains, and switch to fat-free or low-fat milk and milk products.

III. Pennsylvania Educational Standards:

- A. 11.3 Food Science and Nutrition
- B. 1.6 Speaking and Listening
- C. 10.1 Concepts of Health
- D. 10.2 Healthful Living

IV. Materials

- A. Handouts- copies of recipe, *“Choose Bright Colored Veggies”* handout from Learning ZoneXpress or a similar handout.
- B. Additional Activities- *“Vegetable Groups”* worksheet, *“Vegetable Vocabulary Match Up”* worksheet (grades 9-12)
- C. MyPlate Graphic Poster highlighting the vegetable group or other appropriate poster depicting a variety of vegetables.
- D. Reinforcement that conveys the appropriate nutrition message
- E. Hand wipes, gloves, hairnets/head coverings, aprons, tablecloth
- F. Food and cooking supplies needed for recipe
- G. Paper products needed for preparing and serving recipe (i.e. plates, bowls, forks, spoons, serving utensils, etc.)
- H. Ten Tips Sheet: *Add More Vegetables to Your Day*

V. Procedure: *Text in italics are instructions for the presenter, non-italicized text is the suggested script.*

A. Introductory

- 1. Lesson Introduction
 - a. *Introduce yourself and the nutrition education program/organization presenting the lesson.*

- b. *Review previous lesson.*
- c. *Briefly introduce the lesson topic and recipe that will be prepared. Explain that in this lesson, students will learn why it is important to eat a variety of vegetables every day and discover the different subgroupings of vegetables on MyPlate.*

B. Developmental

1. Discussion of lesson topic
 - a. *Ask students to name the vegetables that they ate yesterday. These vegetables may be listed on the board. When listing them, try to list them together by vegetable subgroup which you can refer back to later in the discussion.*
 - b. *Distribute "Choose Bright Colored Veggies" handout.*
 - c. *Referring to a MyPlate Graphic poster or other appropriate poster, ask the students: What does MyPlate recommend to us about eating vegetables? Solicit responses and review the following points:*
 - i. *Half of our plate should be fruits and vegetables.*
 - ii. *We should vary our vegetables in order to get a variety of nutrients.*
 - iii. *Raw, cooked, fresh, frozen, canned, and dried or 100% vegetable juice all count towards vegetable intake.*
 - d. *Ask the students: Why should we eat a variety of vegetables? Solicit responses and tie them into a discussion on the importance of eating vegetables. Include the following points:*
 - i. *Eating vegetables as part of a healthy diet can reduce the risk of some diseases.*
 - ii. *Vegetables provide a variety of nutrients that are vital for health.*
 - iii. *Vegetables are naturally low in fat and calories and high in other nutrients, making them nutrient dense foods.*
 - iv. *Ask students: What does "nutrient dense" mean? Remind students that foods that are nutrient dense have a lot of nutrients for a lower amount of calories.*
 - e. *Ask students: Can anyone name a vitamin, mineral, or other nutrient that is commonly found in vegetables? Solicit responses. Prompt as needed, highlight the following nutrients:*
 - i. *Vitamin A: helps with eyesight; found in tomatoes, carrots, kale, broccoli, asparagus, and green peppers. Vegetables that are red, orange, or dark green tend to have more Vitamin A.*
 - ii. *Vitamin C: helps protect the body by aiding the immune system and aids in healing; found in asparagus, broccoli, carrots, cauliflower, corn, cucumbers, kale, peppers, potatoes, spinach, and sweet potatoes.*
 - iii. *Vitamin K: is important for blood clotting; found in broccoli, kale, and spinach.*
 - (a) *Ask students: Why might blood clotting be a good thing? Tell students to imagine getting a cut on their hand. If their blood did not clot it might be difficult to contain the bleeding. Clotting of the blood enables you to stop the bleeding.*

- iv. Potassium: a mineral that helps maintain healthy blood pressure and water balance in the body; found in all types of potatoes, tomatoes, beets, broccoli, leafy greens, and mushrooms.
 - v. Folate: a vitamin that helps form red blood cells; found in lentils, soybeans, spinach, broccoli, asparagus, and white beans.
 - vi. Iron: a mineral that helps blood cells carry oxygen through the body; found in dark leafy green vegetables, as well as meats.
 - vii. Calcium: important for bone health; found in broccoli and dark leafy greens.
 - viii. Fiber: helps reduce blood cholesterol levels and is important for proper bowel function; found in all vegetables with some of the best sources being beans, peas, leafy greens, Brussels sprouts, broccoli.
- f. *Tell the students:* There are other substances in vegetables that provide health benefits and may reduce the risk of some diseases. These substances are called Phytonutrients. Phytonutrients give vegetables their color, flavor, and aromas, and help protect the body in many different ways. Over 4,000 phytonutrients have been found, but only a few have been studied and identified. The best way to get the health benefits from vegetables is to eat a wide variety and eat them every day. *Refer back to the list that was made at the start of class and briefly discuss the variety or lack of variety in the students' vegetable choices.*
- g. *Tell the students:* In order to get the vitamins, minerals, and phytonutrients from vegetables, MyPlate recommends that we eat approximately 2 ½ cups of vegetables each day, and each week include vegetables from each vegetable subgroup. The sub groups and examples are:
- i. Dark green vegetables – Broccoli and dark, leafy greens (kale, spinach, bok choy, Romaine lettuce, Turnip Greens, etc.)
 - ii. Red and orange vegetables - Squash, carrots, pumpkin, red peppers, sweet potatoes, tomatoes, etc.
 - iii. Beans and peas – Black beans, black-eyed peas, chickpeas, lentils, pinto beans, soy beans, white beans, etc.
 - iv. Starchy vegetables – corn, peas, lima beans, plantains, potatoes, etc.,
 - v. Other vegetables – these are vegetables that don't fall into the other groupings. Artichokes, asparagus, Brussels sprouts, celery, cauliflower, cabbage, cucumbers, green beans, mushrooms, onions, yellow squash, etc.
2. Vocabulary for the day:
- a. Phytonutrient: a substance found in plants which are believed to be beneficial to human health and help prevent various diseases.
3. Cooking Activity
- a. *Distribute copies of recipe to students. Suggested recipes are provided but may be altered as needed. When selecting a recipe, choose recipes that have ingredients from at least three food groups and can be prepared within the allotted time.*
 - b. *Review the ingredients and instructions for preparing the recipe.*

- c. *Remind students of food safety guidelines and proper cooking equipment use.*
 - d. *Involve students in food preparation and cooking. Choose volunteers and assign each student a task or have groups of students take turns assisting.*
 - e. *Discuss the following points while cooking:*
 - i. *Have students identify in which food group each ingredient belongs.*
 - ii. *Grades 9-12: Discuss the nutrients that are found in the ingredients.*
 - f. *Provide each student with a sample-sized portion of the recipe to taste.*
4. *Additional activities: may be used with students who are not participating in cooking or as a follow-up activity*
- a. *Vegetable Groups worksheet (Grades 6-8 or 9-12)*
 - i. *Have students work alone or in groups to complete the worksheet. Have students think of as many vegetables as they can and write the name of the vegetable in the appropriate vegetable subgroup.*
 - ii. *Review their answers.*
 - b. *Vegetable Vocabulary Match Up (Grades 9-12)*
 - i. *Have students work alone to complete the worksheet. Have the students match each vocabulary word on the left with the correct definition on the right.*
 - ii. *Review the answers.*

C. Conclusion

1. Review take-away messages from lesson.
 - a. *Ask students: Why is it important that we eat vegetables every day? Eating vegetables every day can help to reduce the risk of developing some diseases.*
 - b. *Ask students: Why is it important to vary our veggies? Different vegetables provide different nutrients. By varying the types of vegetables we eat, we can get a better variety of nutrients to make sure we get what we need.*
 - c. *Ask students to name the different vegetable subgroups and an example of a vegetable from each group.*
2. Distribute the reinforcement, read the message and/or explain the reason why they are receiving the reinforcement.
3. Distribute Ten Tips Fact Sheet (or other appropriate fact sheet) and encourage students to share it with their families.
4. Thank the students for their participation and answer any question they may have.



This material was funded by USDA's Supplemental Nutrition Assistance Program (SNAP) through the PA Department of Human Services (DHS). This institution is an equal opportunity provider.

Pasta Primavera

Serving Size: 1/3 of recipe

Yield: 3 servings

Ingredients:

- 1 cup noodles, uncooked
- 1 Tablespoon vegetable oil
- 2 cups chopped frozen mixed vegetables
- 1 cup diced, canned tomatoes, drained
- 1 Tablespoon margarine
- 1/4 teaspoon garlic powder
- 1/8 teaspoon black pepper
- 3 Tablespoons Parmesan cheese

Instructions:

1. Cook noodles according to package directions.
2. While noodles are cooking, heat oil in a skillet.
3. Add vegetables and sauté until tender; stirring constantly.
4. Add tomatoes and sauté 2 more minutes.
5. Toss vegetables with noodles and margarine.
6. Add seasonings; sprinkle with Parmesan cheese.

Nutrition Facts	
Serving Size 1/3 of recipe (266g)	
Servings Per Container	
Amount Per Serving	
Calories 300	Calories from Fat 110
<hr/>	
	% Daily Value*
Total Fat 13g	20%
Saturated Fat 2.5g	13%
Trans Fat 1g	
Cholesterol 20mg	7%
Sodium 250mg	10%
Total Carbohydrate 41g	14%
Dietary Fiber 7g	28%
Sugars 9g	
Protein 11g	
<hr/>	
Vitamin A 240%	• Vitamin C 40%
Calcium 10%	• Iron 15%
*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
Saturated Fat	Less Than 20g 25g
Cholesterol	Less Than 300mg 300 mg
Sodium	Less Than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Source:

Adapted from: Simply Seniors Cookbook, p.43 Utah Family Nutrition Program

Utah State University Extension

<http://recipefinder.nal.usda.gov>



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Black Bean Soup

Serving size: 1.5 cups

Yield: 12

Ingredients:

- Nonstick cooking spray
- 1 cup chopped onion
- 1/2 cup chopped carrot
- 1/2 cup chopped celery
- 2 cloves garlic, minced
- 3 16 ounce cans cooked black beans
- 1 (14 ounce) can whole tomatoes
- 3 cups low sodium chicken broth
- 1/3 cup fresh cilantro, chopped
- 2 Tablespoons tomato paste
-
- 1 Tablespoon lime juice
- 1 teaspoon ground cumin
- 1/8 teaspoon cayenne pepper
- 1/8 teaspoon ground black pepper
- 3/4 cup sour cream
- 1 Tablespoon sour cream

Instructions:

1. Spray skillet. Add onion, carrots, celery, and garlic. Cook 10 minutes.
2. Stir in 2/3 of the black beans, tomatoes & their juice, chicken broth, cilantro, tomato paste, lime juice, cumin, cayenne, and pepper.
3. In small bowl, mash the rest of the black beans with fork and add to soup.
4. Bring to boil, reduce heat and simmer for 30 minutes or until thickened.
5. Top each serving with 1 Tablespoon of sour cream. Serve.

Source:

Your Plan to Eating More Cookbook

www.fruitsandveggiesmorematters.org



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Nutrition Facts			
Serving Size 1.5 C			
Servings Per Container 12			
Amount Per Serving			
Calories 146	Calories from Fat 60		
Total Fat 2.2g			
Saturated Fat 1.1g			
Polyunsaturated fat .3g			
Cholesterol 4mg			
Sodium 388mg			
Potassium 554mg			
Total Carbohydrate 24g			
Dietary Fiber 5.6g			
Protein 8g			
* 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
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Protein		50g	65g

Ryan's Rockin' Layered Salad

Serving Size: ½ cup

Yield: 10 servings

Time: 15 minutes

Ingredients:

- 1 cup prepared low-fat Ranch salad dressing
- 1 cup prepared salsa
- 1 (10-ounce) package romaine mix
- 1 (10-ounce) package shredded carrots
- 1 (15-ounce) can black beans, drained and rinsed
- 1 (15-ounce) can whole kernel corn, drained
- 1 small red onion, diced
- 1 cup finely shredded reduced-fat cheddar cheese
- 1 cup baked tortilla chips, crushed

Instructions:

1. Combine Ranch dressing and salsa; set aside.
2. In large bowl, layer the romaine mix, carrots, black beans, corn, red onion, and cheese.
3. Pour the dressing/salsa mixture on top; chill for 45-60 minutes in refrigerator.
4. When ready to serve, top with crushed tortilla chips.

Source:

5 A Day

<http://www.5aday.gov/>

Nutrition Facts	
Serving Size 1/2 cup (236mL)	
Servings Per Container 10	
Amount Per Serving	
Calories 140	Calories from Fat 60
%Daily Value*	
Total Fat 7g	11%
Saturated Fat 2g	10%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 600mg	25%
Total Carbohydrate 14g	5%
Dietary Fiber 3g	12%
Sugars 0g	
Protein 6g	
Vitamin A 4%	Vitamin C 10%
Calcium 10%	Iron 6%
*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



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Sweet Potato & Black Bean Chili

Serving Size: ½ cup

Yield: 15 servings

Time: 40 minutes

Ingredients:

- 2 teaspoons extra virgin olive oil
- 1 onion, finely diced
- 1 sweet potato, peeled and diced
- 2 cloves garlic, minced
- 1 Tablespoon chili powder
- 2 teaspoons ground cumin
- 1/8 teaspoon salt
- 1 1/3 cups of water
- 1 15-ounce can black beans, drained
- 1 15-ounce can diced tomatoes
- 2 teaspoons lime juice
- 2 Tablespoons chopped fresh cilantro

Nutrition Facts

Serving Size 1/2 cup (118mL)
Serving Per Container 15

Amount Per Serving

Calories 80 Calories from Fat 25

%Daily Value*

Total Fat 3g **5%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **1%**

Sodium 170mg **7%**

Total Carbohydrate 10g **3%**

Dietary Fiber 2g **8%**

Sugars 9g

Protein 2g

Vitamin A 15% • Vitamin C 8%

Calcium 4% • Iron 6%

* 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

Instructions:

1. Heat oil in skillet over medium-high heat. Add onion and sweet potato and cook, stirring often, until the onion is slightly softened.
2. Add garlic, chili powder, cumin, and salt, stirring constantly, about 1 minute.
3. Add water, bring to a boil, cover, reduce heat to maintain a gentle simmer and cook until the potato is tender, about 12-15 minutes.
4. Add beans, tomatoes, and lime juice; increase heat to high and return to a boil, stirring often. Reduce heat to maintain a simmer and cook until slightly reduced, about 4 minutes.
5. Remove from heat and stir in cilantro.

Source:

www.eatingwell.com



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Vegetable Groups

Directions: Think of as many vegetables as you can. Place each vegetable into the appropriate vegetable subgroup.

Dark Green	Red and Orange	Beans and Peas	Starchy	Other Vegetables



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Vegetable Vocabulary Match Up

Directions: Match each vocabulary word on the left with the correct definition on the right..

Vocabulary Words	Definitions
___ Calcium	A. The part of the plant you are eating when you eat spinach.
___ Broccoli	B. The most popular vegetable in the U.S.
___ Vitamin C	C. The part of the plant you are eating when you eat celery.
___ Vitamin A	D. The number of kernels on a typical ear of corn.
___ Phytonutrients	E. This vegetable has more vitamin A than carrots.
___ 800	F. Green and orange vegetables usually have lots of this nutrient.
___ Iron	G. A vitamin that is important for blood clotting and is found in broccoli, kale, and spinach.
___ Folate	H. Dark green, leafy vegetables are a good source of this nutrient.
___ Fiber	I. The number of milligrams of calcium teenagers need every day.
___ 1300	J. This nutrient helps our blood stay healthy. It is found in meats and in dark green vegetables.
___ Stem	K. This vitamin helps to form red blood cells and is found in lentils, spinach, broccoli, and asparagus.
___ Vitamin K	L. A plant substance that gives vegetables flavor, color, or aroma and may have health benefits in humans.
___ Leaves	M. A nutrient that helps to reduce blood cholesterol and maintain proper bowel function.
___ Sweet potatoes	N. A nutrient that helps to protect the body by aiding the immune system. It is found in broccoli, peppers, potatoes, sweet potatoes, and citrus fruits.
___ Potatoes	O. This vegetable has more Vitamin C than potatoes.



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Vegetable Vocabulary Match Up – ANSWER KEY

Directions: Match each vocabulary word on the left with the correct definition on the right..

Vocabulary Words	Definitions
<u>H</u> Calcium	A. The part of the plant you are eating when you eat spinach.
<u>O</u> Broccoli	B. The most popular vegetable in the U.S.
<u>N</u> Vitamin C	C. The part of the plant you are eating when you eat celery.
<u>F</u> Vitamin A	D. The number of kernels on a typical ear of corn.
<u>L</u> Phytonutrients	E. This vegetable has more vitamin A than carrots.
<u>D</u> 800	F. Green and orange vegetables usually have lots of this nutrient.
<u>J</u> Iron	G. A vitamin that is important for blood clotting and is found in broccoli, kale, and spinach.
<u>K</u> Folate	H. Dark green, leafy vegetables are a good source of this nutrient.
<u>M</u> Fiber	I. The number of milligrams of calcium teenagers need every day.
<u>I</u> 1300	J. This nutrient helps transport oxygen through our blood. It is found in meats and in dark green vegetables.
<u>C</u> Stem	K. This vitamin helps to form red blood cells and is found in lentils, spinach, broccoli, and asparagus.
<u>G</u> Vitamin K	L. A plant substance that gives vegetables flavor, color, or aroma and may have health benefits in humans.
<u>A</u> Leaves	M. A nutrient that helps to reduce blood cholesterol and maintain proper bowel function.
<u>E</u> Sweet potatoes	N. A nutrient that helps to protect the body by aiding the immune system. It is found in broccoli, peppers, potatoes, sweet potatoes, and citrus fruits.
<u>B</u> Potatoes	O. This vegetable has more Vitamin C than potatoes.



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