



Serving Nutrition at Home

Grade Level: 5-12

Time: Varied

Objectives: Students prepare a healthy meal(s) by integrating fruits and vegetables.

Materials:

- Recipe collection/cookbook(s)/online recipe resource
- Calculator
- Kitchen/cooking supplies

Background:

A recent report from the Centers for Disease Control and Prevention (CDC) shows that high school youth are not eating enough fruits and vegetables. The amount of fruits and vegetables needed for each person to maintain a healthy diet varies depending on the amount of calories your body needs to consume which is dependent on your age, gender, and physical activity level. Overall, eating more fruits and vegetables as opposed to unhealthy options is a great pattern. Here is an interactive tool you can use to calculate how many cups of fruits and vegetables are recommended daily for you. (<http://www.fruitsandveggiesmatter.gov/form.html>)

Although the winter season may result in fewer varieties of fresh fruits and vegetables, depending on where you are located geographically, there are still plenty of options to meet the recommendations for a healthy diet. This time of year is often burdened with unhealthy snacks and desserts, but there are many ways to enjoy the food you eat without sacrificing the nutritional value.

Encourage your child to continue learning during the winter break, by creating a meal list for the family that incorporates more fruits and vegetables. This activity can be expanded by taking your child to the store to research availability of produce and cost and then calculating the amount needed to follow certain recipes and the total cost for each meal and each person's individual plate. Ultimately your child could be given the task of following through and preparing the meals they choose.

Exploration

1. Discuss with your child the fruit and vegetable consumption recommendations. Use the interactive tool presented above to calculate the recommendations for you and your child. Ask your child, "*Why do you think recommendations are in place?*"
 - a. Possible responses:
 - i. In order for our bodies to gain proper nutrition which is available by eating a variety of healthy foods including fruits and vegetables.
 - ii. Choosing fruits and vegetables provides lower calorie, lower fat snacks and additions to meals and can replace those less nutritious options.



2. Share with your child, *"Fruits and vegetables can be substituted into recipes in place of higher calorie foods to help maintain a healthy body weight. They also help promote healthy skin among many other benefits."*
3. Have your child select, from a cookbook/recipe collection, a meal he/she would like to prepare. They could focus on one meal (breakfast, lunch, or dinner) or could create a dish for each. The goal is to prepare meals that will help the family consume more fruits and vegetables, so your child needs to be considering the number of servings of fruits and vegetables in each serving of the recipe(s). If one recipe does not have enough fruits and vegetables, your child may consider adding a side of fresh vegetables and a fruit salad.
4. If your child wants to choose a certain meal but it isn't a very healthy meal, consider helping him/her identify ways to substitute some of the higher calorie/fat items for fruits and/or vegetables (*see pg. 3*).
5. Once your child has selected the dishes he/she will be creating, have them calculate the number of servings needed to feed the family. Next he/she should calculate the quantities of each ingredient needed to prepare the meal based on the number of servings needed. Finally, he/she can prepare a shopping list to include those necessary ingredients.
6. (Optional) Have your child make a trip to the store to research cost of each ingredient and prepare a budget for what they anticipate each dish to cost. Another option is for your child to research the cost of each ingredient online. Using this information, your child can then calculate how much each serving of the recipe will cost and identify what it will cost to serve each dish to a given number of people.
7. Determine with your child when they will be serving their dishes. Allow him/her to go to the store and shop prior to the day they will be serving their dishes. On the designated day allow your child to prepare the dishes, facilitate as needed/desired by your child. Offer your child some instructions on food safety. Here is a link with information provided by NGA to schools which is also relevant to cooking at home:
<http://www.kidsgardening.org/node/11545>.
8. When your child serves each dish they have prepared encourage him/her to share with the family what they learned.
 - a. Possible topics:
 - i. Share what they know about the recommendations for fruits/vegetables and how the dishes he/she prepared help everyone meet those recommendations.
 - ii. Share what they learned about planning, shopping for, and preparing a meal.
 - iii. Share what they learned about planning and following a budget.
 - iv. What was the hardest part about making this meal?
 - v. Were any of the ingredients available locally?
 - vi. Have you ever grown any of the vegetables/fruits used in this meal?



9. Don't forget to take pictures of your child working through this process. Join the group "Kids in the Kitchen" on our site at <http://www.kidsgardening.org/groups/school> to share your pictures, recipes, and stories of your student(s) cooking. Be sure to include what recipe(s) your student(s) prepared. You can also share your pictures with us on our Facebook site, KidsGardening.org or Twitter at Kids_Gardening.

Digging Deeper

Share this resource with your child:

http://www.fruitsandveggiesmatter.gov/benefits/nutrient_guide.html

This site contains great information about the fruits and vegetables that provide each nutritional benefit. Have your child consider the meals he/she is preparing and identify what nutritional value the meal has and how those nutrients are beneficial.

Healthy Meal Substitutions

Breakfast:

- Replace half of the cereal in your bowl with fruit such as a banana or apple
- Use an Applesauce/fruit puree for oil when baking cupcakes/muffins
- Use turkey bacon instead of the pork product
- Egg whites/egg substitute instead of whole eggs
- Add fresh/frozen fruit to baked goods for additional flavor
- Top pancakes/waffles with fruit rather than syrup

Lunch:

- Use two large pieces of lettuce in place of bread bun for burgers/sandwiches
- Try a baked potato loaded with fresh vegetables instead of French fries
- Reduce the amount of salt for flavoring; instead try herbs and spices

Dinner:

- Use Spaghetti Squash instead of noodles for spaghetti dinner
- Replace half of the cheese in a lasagna dish with spinach
- Replace white pasta with whole grain pasta
- Reduce the amount of meat in your dinner dish while increasing the number of vegetables proportionately
- Try your chicken/fish dinner baked in bread crumbs or rolled oats instead of frying it in oil

Snacks:

- Cut up vegetables with low-calorie dip instead of chips
- Piece of fresh fruit/fruit canned in water or its own juices (not in syrup)

Dessert:

- Fresh fruit cups
- Yogurt parfait-fat free vanilla yogurt, fresh berries, low-fat granola

This lesson plan was developed by Cynthia Domenghini, NGA staff.