



## Sweetpotatoes: It's What's for Dinner! Grades 6 - 8

**Purpose:** Students will explore the importance of eating a healthy, balanced diet including foods they consume daily and adding sweetpotatoes for improving their nutritional intake.

**Subject Area(s):** Health

### Common Core/Essential Standards

#### 6<sup>th</sup> Grade Health

**6.NPA.1.2** Evaluate Food Facts label with the advertisement of nutrition choices and allowable claims on food labels.

**6.NPA.1.3** Apply MyPlate meal-planning guides to ethnic and vegetarian choices.

**6.NPA.2.3** Implement a plan to consume adequate amounts of foods high in fiber.

#### 7<sup>th</sup> Grade Health

**7.NPA.1.1** Use the dietary guidelines for Americans to eat nutrient dense foods in moderation.

**7.NPA.1.2** Analyze Food Facts Labels for nutrients such as proteins, fats, and carbohydrates.

#### 8<sup>th</sup> Grade Health

**8.NPA.1.2** Summarize the benefit of consuming adequate amounts of vitamins A, E and C, magnesium, calcium, iron, fiber, folic acid, and water in a variety of foods.

**8.NPA.1.3** Implement meal plans that are consistent with the Dietary Guidelines.

**8.NPA.2.1** Plan healthy person eating strategies with attention to caloric intake and expenditure.

**8.NPA.2.2** Generate a healthful eating plan incorporating food choices inside and outside the home setting.

**8.NPA.4.2** Differentiate methods of food preparation in terms of health and safety.

### National Agricultural Literacy Outcomes

#### Agriculture and Environment Outcomes

(g) Recognize how climate and natural resources determine the types of crops and livestock that can be grown and raised for consumption

#### Plant, Animals, Food, Fiber, and Energy

(f) Identify where labeling indicates the origin of food and fiber (fabric or clothing)

#### Food, Health, and Lifestyle

(b) Evaluate food labels to determine food sources that meet nutritional needs

(c) Evaluate serving size related to nutritional needs

(g) Identify agricultural products (foods) that provide valuable nutrients for a balanced diet

(i) Identify sources of agricultural products that provide food, fuel, clothing, shelter, medical, and other non-food products for their community, state, and/or nation

## Essential Questions

- What can sweetpotatoes provide for the human body, nutritionally?
- Why is consuming a healthy diet important?
- What is a nutritional fact label?
- Are sweetpotatoes a good source of vitamins and minerals? If so, identify the vitamins and minerals.

## Materials

- [\*From Farm to School – Crops of North Carolina: Digging for Sweetpotatoes\*](#) by Heather Barnes and Karen Baltimore (book)  
Printed by North Carolina Department of Agriculture and Consumer Services  
Publication supported by U.S. Department of Agriculture's (USDA) Agriculture Marketing Service North Carolina
- Online Resource – Illinois Ag Mag – Nutrition  
<http://agintheclassroom.org/TeacherResources/AgMags/Nutrition%20Interactive%20Ag%20Mag3.pdf>
- Chart paper
- Markers
- Computer
- iPad
- Smartboard
- Sweetpotatoes
- Microwave
- Toaster oven
- Cinnamon
- Sugar
- Brown sugar
- Marshmallows
- Butter
- Plastic bag
- Condensed milk
- Graham crackers
- Whipped cream
- Nutrition Facts Label
- Student Observation Journal

## Essential Files/Links

- [\*Farm to School – Crops of North Carolina: Digging for Sweetpotatoes\*](#) (book)
- Nutrition Facts Label
- Health of Sweetpotatoes Article

- Food Diary  
Link: [https://www.healthyeating.org/Portals/0/Documents/Healthy%20Eating/Food\\_Diary.pdf?ver=2016-12-15-113520-863](https://www.healthyeating.org/Portals/0/Documents/Healthy%20Eating/Food_Diary.pdf?ver=2016-12-15-113520-863)
- Food Diary Example (Age 14+ calorie intake):  
[https://www.choosemyplate.gov/MyPlatePlan\\_3200cals\\_Age14plus](https://www.choosemyplate.gov/MyPlatePlan_3200cals_Age14plus)
- Food Diary Example (Age 9-13 calorie intake): [https://choosemyplate-prod.azureedge.net/sites/default/files/myplate/checklists/MyPlatePlan\\_3200cals\\_Age9-13.pdf](https://choosemyplate-prod.azureedge.net/sites/default/files/myplate/checklists/MyPlatePlan_3200cals_Age9-13.pdf)
- Choose MyPlate Poster  
Link: [https://choosemyplate-prod.azureedge.net/sites/default/files/tentips/mini\\_poster.pdf](https://choosemyplate-prod.azureedge.net/sites/default/files/tentips/mini_poster.pdf)
- Sweetpotato Recipe Card
- Nutrition Fact Label Note Sheet
- Illinois Ag Mag (online resource)  
Link: <http://www.agintheclassroom.org/TeacherResources/AgMags/Nutrition%20Interactive%20Ag%20Mag3.pdf>

## Vocabulary

**Diet:** the foods and beverages a person selects and consumes daily.

**Food and Drug Administration:** a federal agency in the United States responsible for protecting the public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, and the safety of our nation's food supply.

**Minerals:** a solid, inorganic substance of a natural occurrence. There are 13 essential minerals the body needs to maintain its health.

**MyPlate:** the current nutrition guide published by the United States Department of Agriculture (USDA), depicting a place setting with a plate and glass divided into five food groups.

**Nutrition Facts:** a label required by law on food packages indicating the nutritional composition of food.

**Nutrients:** a chemical component of food that is essential, in some quantity, to a living organism.

**Serving Size:** portions of individual foods which provide certain amounts of major nutrients.

**Tuber:** a plant root that is specifically modified for storage of starch, water, and nutrients. Examples of tubers are carrots and sweetpotatoes also known as storage roots.

**Vitamins:** organic compounds essential for normal growth and nutrition required in the diet because they cannot be synthesized by the body.

## NC Ag Facts

- North Carolina grows nearly 60% of all United States sweetpotatoes (more than any other state in the United States).<sup>1</sup>
- The sweetpotato is North Carolina's state vegetable.<sup>1</sup> The single-word term helps differentiate the sweetpotato from the white or Irish potato, which is a tuber, not a root, and possess a different nutrient profile. Sweetpotato – *Ipomoea batatas*, a storage root is part of the morning glory family.<sup>7</sup>
- North Carolina sweetpotatoes are available every month of the year.<sup>1</sup>

- Most sweetpotatoes are grown in the piedmont and coastal plain regions of North Carolina because of the well-drained, sandy soil.<sup>1</sup>
- There are hundreds of varieties of sweetpotatoes and many are grown across North Carolina. Some you may see most often in grocery stores include the Japanese sweetpotato, the White sweetpotato, and the orange flesh Covington sweetpotato.<sup>1</sup>
- In 2017, nearly 89,500 acres of sweetpotatoes were harvested; 30,000 more acres than California, Louisiana and Mississippi combined.<sup>6</sup>
- North Carolina has produced more than one billion pounds of sweetpotatoes for the last seven years; this is the only state to exceed one billion pounds.<sup>6</sup>
- In dollars, North Carolina had the largest increase in 2017 at just over \$37 million.<sup>6</sup>

### **Background Knowledge**

Did you know that a sweetpotato is actually part of the morning glory family? It is a perennial (perennials regrow every spring); though it is cultivated as an annual (annuals live for one growing season, but often cannot be overwintered). The creeping stems of this amazing plant can grow up to 20 feet long and frequently send out roots at the nodes which, in favorable seasons, bear small potatoes. There are three main types of leaves: round, shouldered, and lobed or split. The color of the stems and leaves varies from dark green to light purple. No flowers are produced except in southern latitudes.<sup>2</sup>

The skin color of a sweetpotato can range from white to yellow, red, purple, or brown. The flesh also ranges in color from white to yellow, orange, or orange-red.<sup>3</sup>

So, is it a yam, a sweetpotato, or are they the same thing? The truth: yams and sweetpotatoes are not the same thing at all. There are thousands of sweetpotato varieties. Sweetpotato varieties are classified as either ‘firm’ or ‘soft’ – firm varieties were produced before soft varieties. When the soft varieties were grown there was a need to differentiate between the two (firm or soft). Africans actually named the ‘soft’ sweetpotatoes ‘yams’ because they resembled the yams in Africa. Their native word was ‘nyami’ and if the n & i are removed the term ‘yam’ remains. Despite this identification, this is not true. In fact, while the ‘soft’ varieties look like yams, they are not yams at all; it is just a variety of sweetpotato.<sup>3</sup>

Yams are often imported from the Caribbean; they are rough and scaly—very different from our smooth, orange flesh variety sold in the United States. In the United States, people often use the word sweetpotatoes and yams interchangeably; however, this is not correct and often adds confusion for the consumer. When a consumer goes to the store and purchases ‘yams,’ they are more than likely purchasing a sweetpotato. Today, the U.S. Department of Agriculture requires labels with the term ‘yam’ to be accompanied by the term ‘sweetpotato.’<sup>3</sup>

According to the North Carolina SweetPotato Commission, North Carolina has ranked number one in sweetpotato production in the United States since 1971 (2018). North Carolina’s hot, moist climate and rich, fertile soil are ideal for cultivating sweetpotatoes. Sweetpotato production in North Carolina

averages nearly 60% of the U.S. supply.<sup>4</sup>

### Climate

Sweetpotatoes can be grown where there is a long frost-free period with warm temperatures in the growing season.<sup>4</sup> Most cultivars require a minimum frost-free period of 90-120 days, with a minimum average daily temperature of 77 degrees Fahrenheit. Sweetpotatoes also require an inch of water per week uniformly distributed throughout the growing season for highest yields.<sup>4</sup>

### Uses for Sweetpotatoes

Sweetpotatoes have many uses. They can be prepared in a number of dishes, canned, pureed, preserved and dehydrated. For drying, clean washed potatoes are placed in a suitable basket and immersed in boiling water for a short time; when taken out of the basket, they are cut into thin slices and spread over mats and exposed to the sun for two or three days. In order to make a superior quality, the skin of the potato is peeled off before slicing.<sup>2</sup> Instances were reported wherein the dried product was successfully ground into flour. In North Carolina a company named Glean produces a sweetpotato flour.<sup>5</sup> Sweetpotatoes can also be used as food stock for animals. They have been successfully fed to hogs, cattle, horses and poultry.<sup>2</sup>

### How to Play KAHOOT!

Let's play KAHOOT! If you do not have an account set up, please follow the link here: <https://create.kahoot.it/register> to register. Once you have registered you may begin creating an interactive game for your students to learn and enjoy. Log into KAHOOT and simply click discussion, survey, multiple choice, or jumble to start making a quiz. Then you will add your questions using the **NC Ag Facts and Background Knowledge** sections of the lesson plan. Once you have created your Kahoot game, launch the game so players can join. A unique game pin will be provided and players will enter this pin to join. Remember this link: <https://kahoot.com> to be put in the browser of your device (computer, phone, iPad, tablet, etc.) to join the game. Kahoot can be used in many ways to ignite learning in your classroom. The following link provides more step by step instructions on how to use Kahoot: [http://kahoot.com/files/2017/07/Kahoot\\_guide\\_to\\_creating\\_and\\_playing\\_learning\\_games.pdf](http://kahoot.com/files/2017/07/Kahoot_guide_to_creating_and_playing_learning_games.pdf)

### Procedures

#### Activity 1: Understanding MyPlate

#### Objectives Addressed: 6.NPA.1.2, 6.NPA.1.3, 7.NPA.1.2

1. Teacher will write this statement: *We all know it is important for us to eat healthy.* Teacher will ask, "What does eating healthy actually mean?" Proceed into a group discussion regarding tips and styles of eating healthy commonly seen and used by students. Assign students to groups of 4; each student will have a role within the group. Assign student roles within groups to hold during discussion time:
  - **Recorder:** Takes notes as other group members are talking; recorder also contributes to conversation among the group.
  - **Time Keeper:** Keeps up with time as shown on a stop watch/clock and acknowledges when

the group only has one minute left.

- **Mediator:** Ensures all students are making appropriate valid comments that supports the discussion of the group and redirects when group members take on a different topic.
- **Accountability Person/Reporter:** Serves as a liaison to the mediator and also reports group's findings during a class discussion.

After groups have had 5-10 minutes to discuss their views on eating healthy and living a healthy life style, **Reporters** from each group will give a report as part of the class discussion (10 minutes). If groups need redirection of conversation, pose questions such as: Do you think about what foods you eat? How often do you eat? How do you decide what kinds of foods to eat? How much do you eat at one time? Do you make healthy choices? Discuss any similarities and differences as seen from each group as a class.

2. Show students **MyPlate**, a nutrition guide published by the USDA, following the link [www.choosemyplate.gov](http://www.choosemyplate.gov). If you are *one-to-one*, have students spend time on the website searching for information about eating healthy and health recommendations for living a healthy life style (5-10 minutes).
3. Have students get back into assigned groups and discuss new learned knowledge. What did they find out? Are they or are they not healthy eaters? What are easy things they can do to become healthy eaters and improve their **diet**? (5-10 minutes).
4. Provide each student with a *food diary* (see **Essential Files**) to record everything they eat or drink, including serving size, for at least the next 24 hours. Encourage students to eat as they would on a normal day and BE HONEST.
5. Show students a *food diary example* (see **Essential Links**), explain to them what should be documented. Remind students that meals like pizza or cheese burgers (combination foods) must be broken down by different food groups. For example, a cheese burger may include a bun, hamburger patty, lettuce, onion, cheese, tomato, and mayonnaise. Also, make students aware that **serving size** is important and to be mindful of it on the nutritional facts from food labels. For example, if the serving size for a bag of pretzels is 30 pretzels, but almost 60 pretzels were consumed that would be 2 servings. Serving size information can be found on food and beverage labels, at the USDA Choose MyPlate website <http://www.choosemyplate.gov/about>, or on nutritional food labels.
6. **Assignment:** Students will complete a food diary of all items eaten in at least 24 hours, providing as much information about food, portion size, and nutritional facts as possible. Also, ask students to bring in nutritional labels of common foods and snacks they eat from their food diary.

## Activity 2: Understanding Your Food Diary

**Objectives Covered:** 6.NPA.1.2, 6.NPA.1.3, 7.NPA.1.1, 7.NPA.1.2, 8.NPA.2.1, 8.NPA.2.2

1. Beginning the next class, ask students to bring out their food diary and share the foods and beverages consumed and recorded.
2. As students are discussing the foods and beverages consumed, show students the five food groups (protein, dairy, fruits, vegetables, etc.) by showing the *Choose MyPlate Poster* (see



**Essential Files).**

3. Explain to students: “Foods are put in specific groups based on the main **nutrients** they provide our bodies. Protein is a great source of iron. Fruits and vegetables are a great source of vitamin C. MyPlate helps us visualize the amount in each food group and **servings size** we should eat on a daily basis.
4. Divide the class into groups of four (can be same groups as Activity 1). Working with the list of meals, beverages, and snacks generated from the students’ food diaries, ask the groups to identify which MyPlate food group—Fruits, Vegetables, Grains, Protein, or Dairy—each item falls under and calculate the caloric intake of at least one meal.
5. During group time pose questions to students and have them discuss their results with a partner:
  - What was the number of servings you ate from each food group?
  - What food group did most of your food items fall in?
  - Based on your knowledge of MyPlate, do you believe you eat a healthy diet?
  - What was the caloric intake of one of your meals? Did it meet the caloric standards for the day?
6. Teacher will create a chart with a sheet of paper divided into the five food groups. After discussion, students will come up to the chart and write the food item or draw a picture of the item consumed by themselves or by their peers.
7. Create a bar graph with the five food groups – have students report back what food group they ate the most of and determine if there are foods they should decrease or even eliminate from their diet.
8. **Exit Ticket:** Have students write down one eating habit they can be committed to changing for creating a healthier diet.

**Activity 3: Sweetpotato: The Super Food!!!**

**Objectives Covered: 6.NPA.1.2, 7.NPA.1.2, 8.NPA.1.2**

1. Start by saying, “As we have reviewed all of your additions to our food group charts, I want to take a moment to look at a specific food that is classified as a plant root.” Teacher points out “sweetpotato.” *Disclaimer: If sweetpotato is not listed on the food group’s chart, teacher should write or draw it in before lesson begins.*
2. Pose the following questions to students, “Is it important to eat a healthy balanced diet? Is it important to exercise? Should our caloric intake be monitored? Does it matter what foods we eat in order to be healthy?” Allow students to discuss and share out answers.
3. Through our previous lessons we have determined the importance of eating healthy and what is suggested to maintain a healthy diet. Today we are going to look at a specific food within a specific food group – the sweetpotato. Ask students, “How many of you eat or have eaten a sweetpotato?”
4. Teacher will show students a food label for a sweetpotato indicating the nutritional composition listed on the *nutrition facts label* (see **Essential Files**).
5. Teacher will ask students, “Is there anyone who knows what this is?” Students will respond: “Food label.” Teacher: “This is a food label for a sweetpotato; let’s take a minute to walk

through what the food label is telling us.” *Food label was taken from:*

<https://snaped.fns.usda.gov/seasonal-produce-guide/sweet-potatoes-yams>

6. Have students identify the different components by asking questions: “How many total carbohydrates are in a sweetpotato?” “How much sodium is in a sweetpotato?” “How much total fat is in one sweetpotato?”
7. Explain to students that sweetpotatoes are indeed a vegetable that is good for our health. Front load students with nutrition facts about sweetpotatoes by saying, “Sweetpotatoes are a very healthy food, they are rich in Vitamin A (stimulates production of immune cells to fight off disease and infection) and Vitamin C. They only have 100 calories, and are low in sodium, but do contain natural sugar. Due to their orange color, sweetpotatoes are also high in carotenoids (beta-carotene). They have many other vitamins including B5, B6, thiamin, niacin, and riboflavin. Health benefits include stabilizing blood sugar, high in antioxidants, boost brain function, enhance immunity, promote vision health, and aid in weight loss.” These are all important facts that can be added to the student observation journals.
8. Pass out the non-fiction reading passage *Health of Sweetpotatoes Article* found in the **Essential Files** to each student. Allow students time to read through the information. *Teachers this is an opportunity to highlight non-fiction text features.*
9. Once students have read the article on the *Health of Sweetpotatoes*, ask students what they have learned about different **vitamins** and **minerals** provided to us if we eat sweetpotatoes. Pose these questions:
  - a. Why are these vitamins and minerals important?
  - b. What vitamins and minerals do sweetpotatoes contain?
  - c. What environmental conditions such as climate could occur do prevent the sweetpotato to develop and grow to its potential?
  - d. What natural resources are important for sweetpotatoes to grow?
10. Students will work with partners or small groups to research and find more knowledge for the roles of vitamins and minerals needed by the human body.
11. Have groups create an informational text brochure or article to explain other vitamins and minerals that are healthy for our bodies. Students can also research benefits of eating other fruits and vegetables and compare to that of a sweetpotato.

#### **Activity 4: Get in the Kitchen!!**

**Objectives covered: 6.NPA.1.2, 6.NPA.1.3, 6.NPA.2.3, 7.NPA.1.1, 7.NPA.1.2, 8.NPA.1.3, 8.NPA.4.2**

1. Ask students, “How many have ever eaten a sweetpotato?” Count student hands and write down number of who has and who has not eaten a sweetpotato. Continue with, “In our lessons we have learned about eating healthy, serving size, necessary portions, vitamins, minerals, and the benefits of eating sweetpotatoes and other foods. Now that we have a better understanding of eating healthy and an example of one food that supports many of our daily nutrient requirements, let’s investigate!”
2. Say, “Most of you have eaten a sweetpotato; however, some of you have probably eaten sweetpotatoes and didn’t realize it. We are going to learn about different recipes that use



sweetpotatoes as an ingredient.”

3. Provide students with a *sweetpotato recipe card* (see **Essential Files**) to use for writing the recipe while taking special notice to the ingredients, steps, and notes.
4. **Sweetpotatoes Around the World Recipe Writing:** Students will utilize the NC SweetPotato Commission website, [www.ncsweetpotatoes.com](http://www.ncsweetpotatoes.com) to research different recipes from around the world. After researching the different recipes, students will write a recipe using sweetpotatoes as an ingredient. Students will share the recipe with the class. Some of the recipes can be cooked and tested in the classroom to show students what a recipe looks like from start to finish.
5. **Taste Test:** Students will now get to taste sweetpotatoes. Provide students with a cooked sweetpotato or either materials/ingredients to complete the different sweetpotato preparations below (please choose the one that best fits your classroom and time).
  - **Toaster Oven Sweetpotato Fries**

Take two large sweetpotatoes and cut into long wedge strips (I would suggest having the sweetpotatoes pre-cut before class). Sprinkle with your choice of seasoning: a small bit of olive oil and salt, or a cinnamon sugar mixture with margarine. Bake sweetpotato wedges in the toaster oven for about 35-45 minutes (until a fork goes smoothly into the sweetpotato). Be sure to line toaster oven tray with aluminum foil or spray with non-stick cooking spray. Allow to cool about 5 minutes, then taste.
  - **Sweetpotato Pie in a Bag**

Students will get into groups of 3-4. Students will need measuring cups, 2 plastic bags, cooked sweetpotato (canned sweetpotatoes can be substituted), cinnamon, sweetened condensed milk, and a spatula. Students will begin by digging out the inside of the sweetpotato and putting the inside of the sweetpotato in a measuring cup. Transfer the measured sweetpotato into a plastic bag. Students will then pour ¼ cup sweetened condensed milk into the plastic bag with sweetpotato filling. Add a teaspoon of cinnamon. Students will then place the plastic bag inside the second plastic bag for extra support. Pass the bag around the group allowing each student to mash the ingredients together. When the two have mixed well it is ready to taste. Use graham crackers for pie crust and top with whip cream if desired.
  - **Microwavable Sweetpotatoes**

Microwaveable sweetpotatoes can be purchased at the store, or you can create your own – simply wash the sweetpotato and wrap a paper towel around the sweetpotato, place in a 1100 – watt microwave and cook on high for 5 minutes. Be careful when taking out of the microwave, the potato will be very hot!!! Allow students to top their own sweetpotato with cinnamon, brown sugar, butter, marshmallows or taste it plain.
6. Reflection/Written Response:
  - Sweetpotatoes are cooked and consumed in a variety of ways, what is the most consumed way?
  - What is your favorite way to eat sweetpotatoes?
  - How can I put sweetpotatoes in my diet?
  - How many should I eat?

- What vitamins and minerals do sweetpotatoes provide in my diet?

**Extension Activity:** Have students work in groups to create a commercial or infomercial that would air during the Thanksgiving holiday promoting North Carolina sweetpotatoes. They can record the commercial or infomercial using an iPad. Have them include not only the delicious taste of sweetpotatoes but also its versatility in recipes, availability, and nutritional value. Teachers may create a rubric for students to use as peer reviewers for each other's work.

### **Activity 5: Portion Size: Is bigger always better?**

**Objectives Covered: 7.NPA.1.1, 8.NPA.2.1**

1. Teacher will start by saying, "Farmers work very hard to produce the foods we eat, for instance the farmer wants to produce the perfect size vegetable or fruit to meet the desires of the consumer. Farmers research and implement ways to produce larger varieties to ensure the consumer demand is met. Even when we go to the grocery store or to a fast food restaurant we always have the options to "up size" or get a bigger box. Of course, we want more for our money, but is bigger always better?" Pose question to students.
2. Teacher says, "Did you know that for children between the ages of 9 and 13, the USDA recommends 1½ cups of fruit and 2-2½ cups of vegetables per day?"
3. Show students a measuring cup to visualize 2 ½ cups. "Let's recap the fruits and vegetables we eat."
4. Allow students to discuss fruits and vegetables and the foods we eat (5 minutes) Example: Idaho farmers produce potatoes that are used to make French fries, but how many should we actually eat?
5. Share with students the website [choosemyplate.gov](http://choosemyplate.gov), go to the *eat healthy* tab, in the drop down select *All About Vegetables Group* or go to: <https://www.choosemyplate.gov/vegetables>. There are several drop down boxes (hit the + sign in the blue box) that provides the daily amounts for every age range and size of different foods equivalent to one cup.
6. After going through the different scenarios to determine a cup size have students create a measuring cup or tool that equates to one cup. Have students take this home and compare it to the size of the portion they are actually eating.
7. Students will take note of the food they ate, the portion size, and if it was appropriate for a healthy diet (something like a food diary).
8. Ask students to reflect on their eating habits to understand the true meaning of a serving size. Ask them if they will change their eating habits. This is an opportunity to allow students to create posters (focus on digestion, draw pictures of the vitamins and minerals that help our bodily functions, i.e. calcium helps build strong teeth and bones, etc.).

### **Activity 6: Reading Food Labels – What does this Mean?**

**Objectives Covered: 6.NPA.1.2, 7.NPA.1.2, 8.NPA.1.2, 8.NPA.2.2**

1. Have students bring in a food label from their favorite food or something they eat often. Have the student share with a partner the information from the nutrition label.
2. Teacher: "A nutrition fact label is required by law on food packages to indicate the nutritional

consumption of the food. These labels are required, reviewed, and regulated by the **Food and Drug Administration**, a United States federal agency responsible for protecting public health.” Show students the breakdown of what nutrient labels show us:

**1. Servings**

Standard serving sizes have increased to reflect what people actually eat and are in large, bold type. Single serve packaging now reflects 1 serving as the entire container.

**2. Calories**

“Calories” is now larger and bolder.

**3. Fats**

“Calories from Fat” has been removed. Research shows that the type of fat is more important than the amount.

**4. Added Sugars**

“Added Sugars” is new. It is represented in grams as well as % DV. These are sugars added during the processing or packaging of the food. Sugar, syrup, honey, sugars from concentrated juices, etc.

**5. Nutrients**

Vitamin D and potassium are now required. Vitamins A and C are not. The amount in milligrams or micrograms is included. Daily values for nutrients have been updated according to latest science.

**6. Footnote**

The footnote at the bottom of the label has changed to explain the meaning of %DV in the context of a total daily diet.

This image was used from

[https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=666&author\\_state=0&search\\_term\\_lp=food%20labels](https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=666&author_state=0&search_term_lp=food%20labels)

3. Review this guide with students to determine their understanding of each item on the nutritional fact label. Give students *Nutrition Fact Label Note Sheet* (see **Essential Files**). Review with students, following the notes guide to ensure understanding of the nutrition label.
4. Have students review the food label they brought and have them specifically look at the serving size listed on the nutritional fact label. Ask students to determine if they have made a healthy eating choice. Ask students: “Now that you know more about the nutrition fact label what do you think about your food choices?”
5. Share with students the nutritional fact label of a sweetpotato:

## Sweetpotato Nutritional Facts

One large sweet potato has the following:

Calories	Protein	Vitamin E	Vitamin A	Ascorbic Acid	Thiamin	Riboflavin	Niacin	Calcium	Phosphorus	Iron
136	2.14g	5.93mg	26,082IU	29.6mg	0.096mg	0.16mg	0.83mg	29mg	37mg	.76mg

<https://ncsweetpotatoes.com/wp-content/uploads/2013/06/Healthy-Living-Lesson-Plan.pdf>

You can also research nutritional facts about sweetpotatoes and other foods at: USDA Foods Product Information Sheet:

[https://fns-prod.azureedge.net/sites/default/files/fdd/100343\\_Sweet\\_Potatoes\\_Fresh.pdf](https://fns-prod.azureedge.net/sites/default/files/fdd/100343_Sweet_Potatoes_Fresh.pdf)

USDA Food Composition Database:

<https://ndb.nal.usda.gov/ndb/foods/show/11508?n1=%7BQv%3D1%7D&fgcd=&man=&lfacet=&count=&max=25&sort=default&qlookup=sweet+potato&offset=&format=Full&new=&measureby=&Qv=1&ds=&qt=&qp=&qa=&qn=&q=&ing=>

6. After students have a good understanding of nutrients associated with the consumption of sweetpotatoes; allow students to talk and determine what is healthy about a sweetpotato and the benefits we get from putting sweetpotatoes in our diet.
7. Students will create a nutrition label for a sweetpotato and explain each benefit that comes from the consumption of certain vitamins and nutrients.

### Concept Elaboration and Evaluation

- **What can sweetpotatoes provide for the human body, nutritionally?**  
Sweetpotatoes are a very healthy food, they are rich in Vitamin A (stimulates production of immune cells to fight of disease and infection) and Vitamin C. They only have roughly 100 calories, and are low in sodium, but do have some natural sugar. Due to their orange color, sweetpotatoes are also high in carotenoids (beta-carotene). They have many other vitamins too, including B5, B6, thiamin, niacin, and riboflavin. Health benefits include stabilizing blood sugar, containing antioxidants, boosting brain function, enhancing immunity, promoting vision health, and aid in weight loss.
- **Why is consuming a healthy diet important?**  
Eating a healthy diet is paramount to sustain good health and nutrition. Eating a diet with adequate daily intake of fruits and vegetables may help protect against certain types of cancers. In addition, a diet high in foods containing fiber may reduce the risk of heart disease, obesity, and type 2 diabetes. Eating a healthy diet and increasing levels of physical activity can help reduce heart disease and stroke.

- **What is a nutritional fact label?**  
The federal agency in the United States Department of Agriculture is responsible for protecting the public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, and the safety of our nation's food supply. The USDA has required by law that food packages indicating the nutritional composition of the food must be listed on the food package.
- **Are sweetpotatoes a good source of vitamins and minerals?**  
Sweetpotatoes are enriched with vitamins and minerals that are taken from the soil during growth. A sweetpotato is actually a storage root. The make-up of the plant stores all the vitamins and minerals within the storage root, known as a **tuber**.

### Suggested Companion Resources

- *From Farm to School – Crops of North Carolina: Digging for Sweetpotatoes* (Activity Book)  
<https://ncsweetpotatoes.com/wp-content/uploads/2013/03/Digging-for-Sweet-Potatoes-Activity-Book.pdf>  
[ncsweetpotatoes.com]
- Illinois Ag Mag Nutrition  
<http://agintheclassroom.org/TeacherResources/AgMags/Nutrition%20Interactive%20Ag%20Mag3.pdf>
- A Sweetpotato Tale (video)  
<http://www.pbs.org/video/a-sweet-potato-tale-warnvs/>
- The NC Sweetpotato Goes Abroad  
<http://www.pbs.org/video/nc-sweet-potato-goes-abroad-jzu0ks/>

### Sources and Credits

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3. <https://www.loc.gov/rr/scitech/mysteries/sweetpotato.html>
4. <https://ncsweetpotatoes.com/sweet-potatoes-101/how-to-grow-sweet-potatoes/>
5. <https://liveglean.com/>
6. [https://www.nass.usda.gov/Statistics\\_by\\_State/North\\_Carolina/Publications/County\\_Estimates/SweetPotato.pdf](https://www.nass.usda.gov/Statistics_by_State/North_Carolina/Publications/County_Estimates/SweetPotato.pdf)
7. <https://cipotato.org/research/sweet-potato/sweetpotato-one-word-or-two/>

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