



**SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION**

**In season:**



**Fall**

# Sweet Potato

*Lakota: bloskúya*

## Lesson Plan

### Objectives

Participants will:

- identify sweet potato as a vegetable from MyPlate.
- increase knowledge in the harvesting, storage and use of sweet potatoes.
- demonstrate use of sweet potato in a recipe.
- identify ways to limit sodium.

### Items Needed for the Lesson

- MyPlate poster
- Parts of a Plant visual
- Regional chart of in season fruits and vegetables
- Sweet Potato Nutrition Information
- Vegetable Subgroups visual

### Handouts or Take Home Items

- Pick It! Try It! Like It! Preserve It! fact sheet

### Recipe Choices

- Sweet Potato Oven Fries
- Mashed Sweet Potatoes

### Cooking and Food Safety Skill Sheets

- Handwashing
- Washing Fruits and Vegetables
- Knife Safety and Cutting Boards
- Measuring Liquid and Dry Ingredients
- Oven Use and Safety
- Stove Top Safety

### Other Cooking and Food Safety Skills

- Storing fresh vegetables

### Supplies for Sweet Potato Lesson

- Sweet Potato Oven Fries
  - » Oven
  - » Knife
  - » Cutting board
  - » Measuring spoons
  - » Plastic sealable bag
  - » Baking sheet
  - » Spatula
  - » Oven mitts
- Mashed Sweet Potato
  - » Vegetable peeler
  - » Knife
  - » Cutting board
  - » Saucepan
  - » Measuring spoons
  - » Strainer
  - » Medium bowl
  - » Fork or potato masher

### Notes

Optional: Let a sweet potato sprout to display slips and how to grow sweet potatoes.

Optional: Canned sweet potatoes – look at nutrition facts for added sugar.

Optional: Food labels to look at sodium content.

Sweet Potato Oven Fries take 40 minutes to bake – you may need to start baking them before your class starts if using this recipe.

What You Say:	What You Do:
<p>Every class we're going to learn about a different fruit or vegetable. I'm going to give you some clues and I want you to try to think of what it is. After each clue, raise your hand if you think you know what it is.</p> <ul style="list-style-type: none"> <li>• They are part of the morning glory family.</li> <li>• They can be white, cream, orange, reddish or purple.</li> <li>• There are two types: moist flesh and dry flesh.</li> <li>• More than one part of the plant is edible.</li> <li>• It is often called by the incorrect name.</li> </ul> <p>(Answer: Sweet potato.)</p>	<ul style="list-style-type: none"> <li>• Name off each clue, allow a few guesses before moving on to the next clue.</li> <li>• After someone guesses the answer move on to next step or tell them the answer.</li> </ul>
<p>Sweet potatoes are actually not a potato at all. They are a member of the morning glory family. The stems and leaves are also edible and often eaten in other countries. They can be cooked like other greens. Sweet potatoes and yams are not the same thing, in fact, they're not even related. Somewhere along the line Americans started calling sweet potatoes yams and the name has stuck. The United States Department of Agriculture requires that sweet potatoes be labelled as "yams" (check out a can the next time you go to the grocery store).</p> <p>Yams are popular in many other parts of the world (Africa, parts of Asia, South, and Central American and the West Indies), but true yams are rarely grown or sold in the United States. Yams have a rough thick bark-like skin and can grow very large. Sweet potatoes have a thin skin and are high in vitamin A.</p> <p>Yams have more calories and more sugar, and less vitamins than sweet potatoes.</p>	<ul style="list-style-type: none"> <li>• Show visuals of sweet potatoes.</li> </ul>
<p>MyPlate shows us how to eat a well-balanced and nutritious diet. As the MyPlate diagram shows, we should be filling half our plate with fruits and vegetables.</p> <p>Depending on your age and gender we should be eating between 1-4 cups of vegetables a day. What food group do sweet potatoes belong in?</p> <p>(Answer: Vegetable.)</p>	<ul style="list-style-type: none"> <li>• Point to MyPlate poster.</li> <li>• Call on people.</li> <li>• Refer to the Daily Recommendations visual for specific amounts.</li> </ul>
<p>There are 5 subgroups of vegetables dark green, red and orange, beans and peas, starchy and other. We need to make sure we are eating vegetables from each of these groups because they have different vitamins and minerals in them.</p> <p>Do you know what subgroup sweet potatoes are in?</p> <p>(Answer: Red and orange.)</p>	

What You Say:	What You Do:
<p>Different vegetables come from different parts of the plant.</p> <p>Vegetables are either a root, stem, leaf, fruit, flower or seed.</p> <p>What part of the plant do you think sweet potato is? (Answer: Root, technically a tuber.)</p> <p>Do you know why plants need roots? (Answer: The roots provide support by anchoring the plant. Roots also absorb water and nutrients for the plant and store sugars and carbohydrates. Some plants have tubers for extra storage of nutrients.)</p>	<ul style="list-style-type: none"> <li>• Show Parts of Plant visual, call on people to answer questions.</li> </ul>
<p>Growing sweet potatoes: Sweet potato plants love the heat! They need full sun to grow. Sweet potatoes are started off from vine cuttings (or slips); you can start these at home or buy them at a garden store.</p> <p>To grow your own vine cuttings, find a disease-free sweet potato, wash the dirt off and cut the sweet potato in half. Use toothpicks to hold the sweet potato halfway in a glass of water, place the sweet potato near a window for warmth. Within a few weeks roots and leaves will form. When the sweet potato has sprouted, gently pull off the individual sprouts and place in water with the leaves hanging over the edge of the cup or bowl. Within a few days roots will develop on the bottom of each sprout. When the roots are about an inch long, they are ready to plant.</p>	<ul style="list-style-type: none"> <li>• If you are using fresh sweet potatoes, show the group.</li> <li>• If possible, show a slip/vine cutting.</li> </ul>
<p>To harvest sweet potatoes, wait until the first fall frost; they can be harvested before or after. If the leaves are turning yellow on the plant, this is also a good sign that it is time to harvest. Be careful digging up sweet potatoes because the skin is very thin, and they can bruise easily.</p>	
<p>Sweet potatoes can be found canned and fresh. Canned sweet potatoes are packed in syrup. To cut down the added sugars, drain and rinse the sweet potatoes before using in a recipe.</p> <p>When purchasing sweet potatoes, choose the ones with smooth, evenly colored skin. Avoid picking sweet potatoes with holes or cuts.</p> <p>Store sweet potatoes in a cool, dry place; they will last several days at room temperature. Do not refrigerate, it will change the taste.</p>	<ul style="list-style-type: none"> <li>• If possible, show canned sweet potatoes and look at the sugar content.</li> </ul>
<p>Why should we eat sweet potatoes? (Possible answer: They are high in vitamin A, which is important for our eyesight, immune system and bone growth.)</p>	<ul style="list-style-type: none"> <li>• Discuss benefits of eating sweet potatoes, use Sweet Potato Nutrient Information as reference.</li> </ul>

What You Say:	What You Do:
<p>What are different ways you can eat sweet potatoes? (Possible answers: Baked, mashed, boiled, fried, added to soups, casseroles, stir-fry.)</p>	<ul style="list-style-type: none"> <li>• Discuss different ways to eat sweet potatoes.</li> </ul>
<p>To prepare fresh sweet potatoes scrub under running water just before cooking. If baking, rub gently with oil (do not place on aluminum foil), poke several times with a fork and place on a baking sheet (400 degrees Fahrenheit for 15 minutes) or you can "bake" them in your microwave after rinsing and piercing, cook on high 5-9 minutes (for two potatoes) and let stand 3 minutes. You can also cut the sweet potatoes into cubes and boil them (with or without the skin).</p>	<ul style="list-style-type: none"> <li>• Review Washing Fruits and Vegetables skill sheet.</li> <li>• Discuss how to "pierce" the potato.</li> </ul>
<p>Are you ready to try a sweet potato recipe?</p> <p>What is the first thing we always do before preparing food? (Answer: Wash hands.)</p>	<ul style="list-style-type: none"> <li>• Call on someone for the answer.</li> <li>• Review Handwashing skill sheet.</li> </ul>

# Use this page if you are going to prepare Sweet Potato Oven Fries

## Equipment List

- Oven
- Knife
- Cutting board
- Measuring spoons
- Plastic sealable bag
- Baking sheet
- Spatula
- Oven mitts

What You Say:	What You Do:
<p>Today we're going to make Sweet Potato Oven Fries. If we look at the ingredients in this recipe, how many food groups do we have? (Answer: 1.)</p> <p>Which ones? (Answer: Vegetable, sweet potatoes.)</p>	<ul style="list-style-type: none"> <li>• Pass out recipe cards.</li> <li>• Read through recipe together.</li> <li>• Call on those wanting to answer.</li> </ul>
<p>If we have leftovers from this recipe, what should we do with them? (Answer: Place in a container with a lid and in the refrigerator within 2 hours.)</p>	<ul style="list-style-type: none"> <li>• Call on people.</li> </ul>
<p>Notice that we have a few optional seasonings for the oven fries.</p> <p>One of the mixtures does not contain any salt and the other one uses <math>\frac{1}{8}</math> of a teaspoon of salt.</p> <p>Salt is one thing we need to watch in the foods we eat. Our bodies do need salt, but too much can lead to high blood pressure and possibly cardiovascular disease.</p> <p>Dietary guidelines recommend that people over the age of 14 limit sodium intake to 2,300 milligrams (mg) per day (about 1 teaspoon). Individuals who already have high blood pressure should limit sodium intake to 1,500 mg per day.</p> <p>Sodium is in many foods we eat and can be especially high in boxed meals, canned soups and other processed foods. It is important to check the nutrition facts for sodium. If the daily value for sodium is higher than 20%, that means it is high in sodium. Look for foods that are 5% or lower in sodium.</p> <p>Use spices and herbs to season foods at home. You can get creative with cooking and find different flavor combinations you and your family like.</p>	<ul style="list-style-type: none"> <li>• If possible, have both seasoning mixes and do half of each.</li> <li>• Let people answer.</li> <li>• If possible, show a few food labels to look at the sodium content.</li> </ul>
<p>Today we will need to cut the sweet potatoes for our fries and will be baking the fries in the oven; we'll go over some knife, cutting board and oven safety rules and then prepare our recipe.</p> <p>Before we begin cooking, what should we always do? (Answer: Wash hands.)</p>	<ul style="list-style-type: none"> <li>• Review Knife Safety and Cutting Boards and Oven Use and Safety skill sheets.</li> <li>• Review Handwashing skill sheet.</li> <li>• Prepare recipe with participants.</li> </ul>

## Use this page if you are going to prepare Mashed Sweet Potato

### Equipment List

- Vegetable peeler
- Knife
- Cutting board
- Saucepan
- Measuring spoons
- Strainer
- Medium bowl
- Fork or potato masher

What You Say:	What You Do:
Today we are going to make mashed sweet potatoes. How many food groups do we have in this recipe? Let's look through the ingredients. (Answer: 1, sweet potatoes.)	<ul style="list-style-type: none"> <li>• Pass out the recipes.</li> <li>• Call on people or prompt after naming out each ingredient, point to each food group you discuss.</li> </ul>
As we talked about earlier, when we look at MyPlate, ½ our plate is fruits and vegetables. We should be eating between 1-4 cups of vegetables per day depending on our age and gender.	<ul style="list-style-type: none"> <li>• Refer to the Daily Recommendations visual for specific recommendations.</li> </ul>
<p>In this recipe, we use salt, pepper and thyme to season the potatoes. How much salt are we using for the recipe? (Answer: ¼ teaspoon.)</p> <p>Salt is one thing we need to watch in the foods we eat. Our bodies do need salt, but too much can lead to high blood pressure and possibly cardiovascular disease.</p> <p>Dietary guidelines recommend that people over the age of 14 limit sodium intake to 2,300 milligrams (mg) per day (about 1 teaspoon). Individuals who already have high blood pressure should limit sodium intake to 1,500 mg per day.</p> <p>Sodium is in many foods we eat and can be especially high in boxed meals, canned soups, and other processed foods. It is important to check the nutrition facts for sodium. If the daily value for sodium is higher than 20%, that means it is high in sodium. Look for foods that are 5% or lower in sodium.</p> <p>Use spices and herbs to season foods at home. Today we're using pepper and thyme. You can get creative with cooking and find different flavor combinations you and your family like.</p>	<ul style="list-style-type: none"> <li>• Let people answer.</li> <li>• If possible, show a few food labels to look at the sodium content.</li> </ul>
Some spices and herbs that go well with sweet potatoes are cilantro, cinnamon, allspice, lime, onion and orange.	
<p>We will need to cut the potatoes into cubes before boiling. We will be using the stove today to boil our potatoes.</p> <p>Before we begin to cook, what do we need to do? (Answer: Wash hands.)</p>	<ul style="list-style-type: none"> <li>• Review Handwashing, Knife Safety and Cutting Boards and Stove Top Safety skill sheets.</li> </ul>

## Visuals



**Morning Glory flowers**



**Sweet potato vine**



**Sweet potato slips growing out of  
the sweet potato**



**Sweet potatoes attached to a long  
root**

## Sweet Potato Nutrition Information

Type	Serving Size/Weight in grams	Calories	Fiber (g)	Vitamin A (% Daily Value)	Vitamin C (mg)	Potassium (mg)	Folate (mcg)
Sweet potato, raw	½ cup, sliced 67g	57	2	380	2	224	7
Sweet potato, baked	½ cup mashed 100g	90	3.3	n/a	20	457	6
<b>Daily Recommendations</b> <b>RDA=Recommended daily allowance</b> <b>AI=Adequate intake</b>	1-4 cup servings of vegetables per day depending on age	Varies according to age and activity level	AI (depending on age) ranges from 14-33.6 g	Daily Value based on a 2,000 calorie per day diet	RDA (depending on age) ranges from 25-90 mg	AI (depending on age) ranges from 3,000-4,700 mg)	RDA (depending on age) ranges from 150-400 mcg)

# Sweet Potato Sources

## Information

- [vric.ucdavis.edu/main/faqs.htm](http://vric.ucdavis.edu/main/faqs.htm)
- [hortnews.extension.iastate.edu/faq/are-sweet-potatoes-and-yams-same-thing](http://hortnews.extension.iastate.edu/faq/are-sweet-potatoes-and-yams-same-thing)
- [extension.purdue.edu/foodlink/food.php?food=sweet%20potato](http://extension.purdue.edu/foodlink/food.php?food=sweet%20potato)
- [cesolano.ucdavis.edu/files/59967.pdf](http://cesolano.ucdavis.edu/files/59967.pdf)
- [diynetwork.com/how-to/outdoors/gardening/how-to-plant-and-grow-sweet-potatoes](http://diynetwork.com/how-to/outdoors/gardening/how-to-plant-and-grow-sweet-potatoes)

## Recipe

- [myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/mashed-sweet-potatoes](http://myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/mashed-sweet-potatoes)
- [uaex.uada.edu/publications/PDF/FCS727.pdf](http://uaex.uada.edu/publications/PDF/FCS727.pdf)

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SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION

In season:



Fall

# Sweet Potato

*Lakota: bloskúya*

## Pick it!

Sometimes called a yam; long, tapered with smooth, thin, edible skin.

Choose firm, smooth roots with bright, evenly colored skins. Avoid holes or cuts, a source of decay.

Three medium sweet potatoes equals about 2 cups cooked and mashed or a 16 ounce can.

Store in a cool, dry place. Do not refrigerate, as it causes a hard-core and undesirable taste.

Boil, bake, microwave, mash or fry. Add to stir-fries, soups and casseroles.

## Try it!

Just before cooking, scrub under running water and pat dry.

Use a fork to pierce (poke holes in) the potato 4-5 times; brush with oil.

Bake: place on baking sheet, bake at 400 degrees Fahrenheit (F) for 15 minutes; reduce heat to 375 degrees F, until soft.

Microwave: place on microwave safe plate, cook on high for 5-9 minutes. Let stand for 3 minutes.

## Types of Sweet Potato

**Pale yellow:** Dryer flesh than orange variety, pale colored flesh and peel.

**Dark orange:** Orange flesh, moist and plump, sweeter than pale yellow.



## Did you know...

Red, orange and yellow plant pigments are carotenoids which become vitamin A in the body. Vitamin A helps our eyesight, immunity, cell and bone growth.

**Like it!**

## Sweet Potato Oven Fries

### Ingredients

- 4 medium sweet potatoes
- Nonstick vegetable oil spray
- 2 tablespoons canola or olive oil

### Optional Seasonings

- Mix equal parts ground nutmeg and cinnamon or
- Mix  $\frac{1}{8}$  teaspoon each paprika, garlic flakes and salt with a pinch of cayenne pepper

### Directions

1. Preheat oven to 475 degrees F.
2. Rinse potatoes thoroughly and cut into long strips about  $\frac{1}{2}$  inch thick.
3. Place oil in a plastic bag on container and add potatoes. Toss to evenly coat the strips. If adding seasoning, add and toss to coat.
4. Lightly spray a baking sheet with nonstick spray and lay potato strips down in a single layer on the sheet.
5. Bake for 40 minutes turning strips halfway through.

Yields 6 servings

Nutrition Facts per Serving:  
Calories 110; Fat 4.5g; Cholesterol 0mg; Sodium 95mg;  
Carbohydrates 15mg; Sugar 5g; Fiber 3g; Protein 1g

Source: [uaex.uada.edu/publications/PDF/FCS727.pdf](https://uaex.uada.edu/publications/PDF/FCS727.pdf)

## Mashed Sweet Potatoes

### Ingredients

- 4 medium sweet potatoes
- $\frac{3}{4}$  teaspoon thyme
- $\frac{1}{4}$  teaspoon salt
- $\frac{1}{4}$  teaspoon pepper

### Directions

1. Wash and peel potatoes. Cut them into slices about  $\frac{3}{4}$  inches thick.
2. Place them in a saucepan with enough water to cover potatoes. Bring the water to boil on medium heat.
3. Cook the potatoes for 20-25 minutes until they are soft. Drain the water.
4. Put the potatoes in a medium bowl, mash using a fork or potato masher.
5. Mix in the thyme, salt and pepper. Serve hot.

Yields 4 servings

Nutrition Facts per Serving:  
Total Calories 113; Total Fat 0g, Saturated Fat 0g;  
Cholesterol 0mg; Sodium 217 mg; Carbohydrates 26g,  
Dietary Fiber 4g, Total Sugars 5g, Added Sugars included  
0g; Protein 2g

Source: [myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/mashed-sweet-potatoes](https://myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/mashed-sweet-potatoes)

*Lakota word translated by Jeshua Estes.*

**Find more recipes  
and videos at  
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