Sweet Potatoes

*Lesson Plan for Grade 3, Science*

*Prepared by NAITC & Colorado.gov*

*Modified by Mississippi State University, School of Human Science*

*for Mississippi Farm Bureau Federation - AITC*

# OVERVIEW & PURPOSE

In this lesson students will identify a common Thanksgiving food in the form of a sweet potato.

# EDUCATIONAL STANDARDS

**Mississippi College-and-Career Readiness Standards:**

L.3.1.2 Examine evidence to communicate information that the internal and external structures of plant (e.g., thorns, leaves, stems, roots, or colored petals) function to support survival, growth, behavior, and reproduction.

ELA-W.3.8– Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

**NALOs:**

T1.3-5 e Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals).

# OBJECTIVES

* Students will identify the difference between a sweet potato and a yam
* Students will observe the external and internal structures of a sweet potato

# MATERIALS NEEDED

* [What’s the difference between a sweet potato and a yam? Video](https://www.youtube.com/watch?v=bwgOGmAHHng)
* 4-6 medium sweet potatoes
* Salt (1)
* Black pepper (1)
* Milk (1 gallon)
* Butter (4 sticks)
* Small bowls (1 per student)
* Spoons (1 per student)
* Medium Pot
* Water (gallon)
* Hot plate
* Large Bowl
* Potato masher

Essential Links:

* [Whats the differences between a sweet potato and a yam?](https://www.youtube.com/watch?v=bwgOGmAHHng)

# Lesson Set Up:

1. Set up the hot plate, medium pot, and all other materials and ingredients to use for the activity.
2. Pull up the What’s the Difference between a sweet potato and a yam? YouTube video for students to watch.

# VOCABULARY

**commodity:** a primary agricultural product that can be bought and sold

**crop:** a cultivated plant that is grown as food, especially grain, fruit, or vegetable

# Ag Facts:

* Thanksgiving didn't become an annual tradition until 200 years after the Pilgrims celebrated the first Thanksgiving.
* Venison was the meat of the first Thanksgiving feast, not turkey.
* Pumpkin pie and potatoes were not a part of the first Thanksgiving feast.
* Taxonomically, Sweetpotato should be one word because it is not technically a potato (root vegetable) it is a tuber. However, commercially it is usually presented as two words (Sweet Potato).

# Background information for teachers:

Thanksgiving is a traditional American holiday celebrated in November. The holiday has historical roots to the early pilgrims who settled America. It's purpose is to celebrate the year's harvest and give thanks. This lesson provides an opportunity for students to recognize the foods they will likely consume in a traditional Thanksgiving dinner and learn how and where they are likely produced.

As agricultural technology has improved and populations have increased, the agricultural production of our food and fiber has changed to meet the growing and changing demands in our society. Many years ago the majority of the food in our diet was provided by our own gardens and farms or from local farmers. Most consumers played some part in the production of their food. In contrast today, only a very small portion of our population produces the food for our society as a whole. Fewer Americans have first hand experience with and knowledge of farms and the production of their food.

For some Americans, it is becoming increasingly more important to them to know more about how and where their food was produced. Recent growing demand for locally and regionally produced food has opened up new market opportunities. Many efforts and initiatives have been established to increase this awareness and improve a local farmer's ability to market their products locally. *Locavore* is a term used to describe someone who chooses to only consume food that is produced within a certain distance of their home, usually 100 miles. As a whole, consuming locally grown food is good for local economies. Purchasing local foods can also increase agricultural literacy for consumers and help build a greater awareness of where their food comes from.

While there are benefits to purchasing local foods, educated consumers should also be aware of the limitations. In general, choosing to eat only locally grown foods will limit the variety of foods and nutrients you will have access to. The climate of a particular region plays a huge role in determining what kind of food can be grown there. Length of the growing season, soil fertility, access to resources and markets, water, and available open space are also key factors to be taken into consideration. Technology does increase a farmer's ability to grow **crops** in less suitable conditions. For example, a greenhouse can be used to extend the growing season to successfully grow produce in a colder climate. However, growing crops in a greenhouse significantly increases the cost of production, which would then be passed on to the consumer. For this and other reasons, farms are typically located in geographic locations that have the proper climate and resources to produce a **commodity** at the lowest cost. After the commodity is harvested it can be packaged and shipped by truck, plane, or train to locations near and far.

Here are some geographical facts about the production of common Thanksgiving dinner foods and their ingredients:

* **Sweet Potatoes:** North Carolina leads as the top producer of sweet potatoes along with Mississippi. Their climate and soil conditions are ideal for sweet potato production. Sweet potatoes are grown across the country, but they are best suited for cultivation in Southern States which have warmer climates and longer frost-free growing seasons relative to other regions of the United States.

# LEARNING PROCEDURES

Interest Approach:

1. Ask students

**“Do you like to eat sweet potato pie or sweet potato pie on thanksgiving?**

1. Inform students that sweet potatoes are grown in Mississippi and are an important crop to Mississippi.
2. Show the video What’s the difference between a sweet potato and yam? Off the Shelf - America’s Heartland YouTube video.
3. After that, announce,

**“Today we are going to make a recipe called Sweet Potato Mash.” Ask if anyone has tasted mashed potatoes before. What about mashed sweet potatoes? Has anyone tried sweet potatoes plain? What do they taste like?**

1. Introduce each ingredient as you place it on the activity table.
2. Children can take turns mashing the sweet potato in the bowl.
3. Alternatively, divide sweet potato chunks into smaller bowls, so that children can mash a little bit of sweet potato on their own. Offer tastes of plain sweet potato to children, making sure they wash their hands again before continuing with the cooking activity. • Children can help add salt and pepper to the sweet potatoes (once amounts are measured). They won’t need much seasoning!
4. Children can all taste the sweet potato together. Do they like it? What does it taste like? Have children describe the color and texture.
5. Peel and cook and mash the potatoes.

Recipe: Sweet Potato Mash

Enough for about one-two tablespoon per student

**INGREDIENTS**

2 lbs. sweet potatoes (4-6 medium)

3/4 tsp. salt black pepper (to taste)

Butter

Milk

DIRECTIONS

1. Put a large pot of water on to boil.

2. Wash sweet potatoes and peel.

3. Cut sweet potatoes in quarters.

4. When water boils, add sweet potatoes to the pot.

5. Lower heat and simmer until potatoes are tender, about 20 minutes.

6. Add quartered sweet potatoes to a bowl and mash with a fork, whisk, or potato masher. If whisk, using the whisk with an up-and-down motion works best.

7. Add the butter or milk, if desired.

8. Season with salt and pepper.

**Concept Elaboration and Evaluation**

* Review the concepts from the lesson with the students through a class discussion about what was covered in class.

# Additional Learning Procedures

To help students review and elaborate more about sweet potatoes try using the [“Think Pair Share”](https://drive.google.com/file/d/12Y_Jv_NmIO9LGaOuEImSb5dGvxJHG_jE/view?usp=drive_link) method to allow students to think deeper and make new connections.

Additional Texts to Include:

[Poop On The Potato](https://www.amazon.com/Poop-Potato-Farm-Spreaders-Equipment/dp/B09JVM4PNZ/ref=sr_1_17?crid=1DSG2OK6TTAB5&keywords=potato+book&qid=1693924914&s=books&sprefix=potato+book%2Cstripbooks%2C114&sr=1-17)

[Potato: A Tale From The Great Depression](https://www.amazon.com/Potato-Great-Depression-Kate-Lied/dp/0792269462/ref=sr_1_4?crid=1DSG2OK6TTAB5&keywords=potato+book&qid=1693924914&s=books&sprefix=potato+book%2Cstripbooks%2C114&sr=1-4)

[Jamie O’Rourke and the Big Potato: An Irish Folktale](https://www.amazon.com/Jamie-ORourke-Big-Potato-Folktale-ebook/dp/B00JV0YVSW/ref=sr_1_6?crid=1DSG2OK6TTAB5&keywords=potato+book&qid=1693924914&s=books&sprefix=potato+book%2Cstripbooks%2C114&sr=1-6)



Source: <https://www.agclassroom.org/teacher/matrix/>

*For more information and additional lessons visit*

*https://msfb.org/ag-in-the-classroom/lesson-plans/.*