



Sweetpotatoes: From Soil to Sustenance



Grade Level(s): 9-12	Lesson Description: This lesson will introduce the plant science of sweetpotatoes to family and consumer sciences students, incorporating biology and botany into the classroom and providing foundational knowledge about how the sweetpotato grows, matures, and is harvested.	Timeframe: Minutes: 180 Suggested days: 2 days
Goals & Objectives <ul style="list-style-type: none"> • Students will identify the anatomical parts of a sweetpotato plant. • Students will understand the parts of a sweetpotato's life cycle. • Students will understand how sweetpotatoes are cultivated, harvested and stored in NC. 		Prepared By: Jodi Songer Riedel Family & Consumer Sciences Teacher Wakefield High School LEA Name
North Carolina Family & Consumer Sciences Education Standards:		
FN41 Food and Nutrition I 3.01 Understand procedures, nutrition, and cooking methods in fruit and vegetable preparation.	FN43 Food Science and Technology 7.01 Understand how biotechnology affects the quality and safety of food.	
Family & Consumer Sciences National Standards 3.0 8.5.7 Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.		
Materials Needed	<ul style="list-style-type: none"> • Sweetpotato • Sticky Notes • Anticipatory Set Guiding Questions • Sweetpotato Book "From Farm to School" • Think Aloud Checklist • Farm to School Think Aloud Video Example • Sweetpotato Powerpoint • Sweetpotato Powerpoint Graphic Organizer • A year in the life of a NC Sweetpotato poster • Poster/infographic rubric • Sweetpotato images • Poster paper and supplies • Laptop cart or media center/computer lab access 	

<p>Anticipatory Set 10 Minutes</p>	<ol style="list-style-type: none"> 1. A group of students or as a class will be given a sweetpotato. Students will be asked to identify the potato and describe this. DO NOT TELL THEM IT IS A SWEETPOTATO. They will be asked to write down all observations and ideas on a post-it note. In addition, have them answer the questions to guide their thinking. 2. The sticky notes will then be put on the front board and read by the instructor or a volunteer. At this point, it is not the instructor's job to say what is right or wrong, but just to remind them that through this lesson, students will learn about the sweetpotato, how it grows, and then revisit their post-its to see what they have learned or changed their original thinking on. 3. Keep these sticky notes for the Summary/Evaluation. 	<ul style="list-style-type: none"> • Sweetpotato • Sticky Notes • Anticipatory Set Guiding Questions
<p>Activity 1 45 Minutes</p>	<ol style="list-style-type: none"> 1. Students will each be given a copy of the sweetpotato book "From Farm to School." The students will read the book in teams. (Students can get the book digitally if copies are limited) 2. While one student is reading the text, the student should read aloud while thinking aloud. While the student is reading and thinking aloud, the other students should be recording the student's thoughts that are partnering with the text. 3. The teacher should model this method of reading and thinking aloud through the first two to three pages while having students write the instructor's thoughts. 4. To facilitate the thinking aloud, use the "Think Aloud Checklist." 5. Students could take turns reading and thinking aloud while others record the person's thoughts. 6. An audio example has been provided for you. 7. Once every person/group has had a chance to read and think aloud and record, come back as a group and discuss what students thought about this work. 8. Here are some questions to guide the discussion: What did you find interesting in the text? What did you not know about sweetpotatoes that you encountered in your reading? What is something that you thought about on page ---? What do you think triggered this thought? What was something that you pictured in your head while reading? Do you think this text would have been as powerful without the images to aid in your learning? 	<ul style="list-style-type: none"> • Sweetpotato Book "From Farm to School" • Think Aloud Checklist • Farm to School Think Aloud Audio Example
<p>Activity 2 45 Minutes</p>	<ol style="list-style-type: none"> 1. Students will view the Sweetpotato Powerpoint presentation. There are two brief videos in the presentation. There is a supplemental link to view a professionally produced video about sweetpotatoes through UNC Public TV. This helps students to see the harvest and postharvest applications of the sweetpotato's production. 2. Use the graphic organizer, that is a sweetpotato, and have them write down notes about the sweetpotato on the roots. There are 19 slides and the additional video. There are 20 roots/lines for them to write down information from each slide. 	<ul style="list-style-type: none"> • Sweetpotato Powerpoint • Sweetpotato Graphic Organizer

<p>Activity 3 60 Minutes</p>	<ol style="list-style-type: none"> 1. Use the A Year in the life of a NC Sweetpotato poster as an example. Have students create their own poster or infographic about what they have just learned from the powerpoint. Students should use their graphic organizers, as well. 2. Determine how many images you would like to students to have and fill in the Poster/infographic sheet accordingly. 3. Create a due date and give students access to the poster/infographic rubric. 4. Consider reserving a laptop cart or space in the media center/computer lab if you will be creating a virtual poster. 5. If you are going to be using an actual poster, you will need images that the students can print or draw, poster paper and artistic supplies. 	<ul style="list-style-type: none"> • A year in the life of a NC Sweetpotato poster • Poster/infographic rubric • Sweetpotato images • Poster paper and supplies • Laptop cart or media center/computer lab access
<p>Summary/Evaluation 20 Minutes</p>	<ol style="list-style-type: none"> 1. Revisit the sticky notes that students placed in front of the class during the anticipatory set. 2. Read them aloud and see what items students have now learned or where they have made corrections to their knowledge set. 3. Print out the Summary Evaluation Images and Captions. Cut these out and mix them up. 4. Have students work individually or in teams. 5. Have students match up the images to the words and put these in order. 6. Assess student's knowledge. 	<ul style="list-style-type: none"> • Sticky notes from anticipatory set • Summary Evaluation Images and Captions
<p>Source/Other Resources</p>	<p><i>Reading Strategies and Practices</i> by Tierney, Readence, and Dishner (1995) "Think-aloud--- modeling cognitive processes of reading comprehension" in <i>Journal of Reading</i>, Volume 27, pp. 184-193.</p>	