



It's okay to be labeled...  
when you are a sweetpotato.



<b>Grade Level(s):</b> 9-12	<b>Lesson Description:</b> This lesson will use sweetpotatoes to explore such labeling options as conventional, organic, GMO, and gluten-free.	<b>Timeframe:</b> Minutes: 225 Suggested days: 2 ½ days
<b>Goals &amp; Objectives</b> <ul style="list-style-type: none"> <li>• Students will understand food labeling.</li> <li>• Students will explore conventional and organically produced sweetpotatoes.</li> <li>• Students will define GMO's.</li> <li>• Students will define gluten free labeling.</li> </ul>		<b>Prepared By:</b> Jodi Songer Riedel Family & Consumer Sciences Teacher Wakefield High School Wake County Public Schools
<b>North Carolina Family &amp; Consumer Sciences Education Standards:</b>		
<b>FN43 Food Science and Technology</b> 7.02 Compare organically-produced foods to conventionally-produced foods. 8.01 Understand how biotechnology affects the quality and safety of food.	<b>FN42 Food and Nutrition II</b> 2.03 Understand meal planning and food preparation for special diets.	
<b>Family &amp; Consumer Sciences National Standards 3.0</b> 9.5.1 Analyze various factors that affect food preferences in the marketing of food to a variety of populations.		
<b>Materials Needed</b>	<ul style="list-style-type: none"> <li>• Samples of a conventionally and an organically produced sweetpotato or product to sample (eat)</li> <li>• Sticky notes</li> <li>• Teacher Sweetpotato Recipe Sheet</li> <li>• USDA Coexistence Fact Sheets Overview</li> <li>• USDA Coexistence Fact Sheets Organic Farming</li> <li>• USDA Coexistence Fact Sheets Conventional Farming</li> <li>• USDA Coexistence Fact Sheets Biotech</li> <li>• Labeling Organic Products</li> <li>• FDA Food Facts Gluten and Food Labeling</li> <li>• Understanding Food Labeling student worksheet</li> <li>• Student Food Labeling Choice Board</li> <li>• Natural GMO? Sweetpotato Genetically Modified 8,000 Years Ago</li> <li>• Food Labeling Purpose Game <a href="https://www.purposegames.com/game/sweet-potato-food-labeling">https://www.purposegames.com/game/sweet-potato-food-labeling</a></li> </ul>	

<p><b>Anticipatory Set</b> 15 Minutes</p>	<ol style="list-style-type: none"><li>1. Give each student a sticky note. Have each student spend one-minute brainstorming what he/she feels maybe the differences or similarities between an organic and conventionally grown sweetpotato. Students should share out their ideas.</li><li>2. Provide students with a sample of a sweetpotato or sweetpotato product to eat. One of the sweetpotatoes or products should be organic and the other should be conventionally grown. See the Teacher Sweetpotato Recipes sheets for some ideas of what to make.</li><li>3. Once they have received their two samples, have students try to determine which is organic and which is conventional. Students should justify their votes based upon appearance, taste, texture, etc. Feel free to keep a tab (data) of the votes.</li><li>4. Reveal the answer. What were the results? Were there any surprises? Was there really a significant difference in taste, texture, appearance? What about the price?</li></ol>	<ul style="list-style-type: none"><li>• Samples of a conventionally and an organically produced sweetpotato or product for students to eat</li><li>• Teacher Sweetpotato Recipe Sheet</li><li>• Sticky notes</li></ul>
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**Activity 1**  
75 Minutes

1. Each student will be given the article provided called USDA Coexistence Fact Sheets Overview. Students will read the article and compare Certified Organic, Conventional, and Biotechnology crop sectors. Students should fill out the Student USDA Coexistence Factsheet Worksheet while reading the article either as a team or independently. 20 minutes
2. You will then assign students into teams of three or four. Each team will be assigned one of the following articles:
  - USDA Coexistence Factsheets Biotech Farming
  - USDA Coexistence Factsheets Conventional Farming
  - USDA Coexistence Factsheets Organic Farming
3. Students should be given the corresponding questions from the Students USDA Coexistence Factsheet Worksheet and then read their assigned Factsheet (biotech, conventional, or organic). He or she should fill out their corresponding Student USDA Coexistence Factsheet Worksheet. Upon completion of the worksheet, students will then argue why the researched method of farming is the best. You, the teacher, will be a future farmer and you are trying to determine which method of farming you should employ. Employ these steps:
  - a. Give every team 20 minutes to read the assigned USDA Factsheet and fill out the Students USDA Coexistence Factsheet Worksheet with their team.
  - b. Give 10 minutes for students to create a poster or talking points to convince the farmer why this method of farming is the best.
  - c. Give each team two minutes to present their talking points. 10-20 minutes
  - d. The instructor, who is assigned as the farmer, should choose who was most convincing and why they convinced the farmer this was the best method of farming. 5 minutes
4. Upon completion, ask students to analyze which method of farming they PERSONALLY feel is the best for him/herself after the presentations and why. Students should write this analysis on their Student USDA Coexistence Factsheet Worksheet. This *could* be done as homework.

- USDA Coexistence Fact Sheets Overview
- Student USDA Coexistence Factsheet Worksheet
- USDA Coexistence Factsheets Biotech Farming
- USDA Coexistence Factsheets Conventional Farming
- USDA Coexistence Factsheets Organic Farming

<p><b>Activity 2</b> 45 Minutes</p>	<ol style="list-style-type: none"> <li>1. Students will be given two articles: <ul style="list-style-type: none"> <li>• FDA Food Facts Gluten and Food Labeling</li> <li>• USDA Labeling Organic Products</li> </ul> </li> <li>2. Students should be given the Student Understanding Food Labeling Worksheet.</li> <li>3. Students should be assigned to teams of four. Each team will be responsible for reading the articles and annotating with sticky notes, markers, or highlighters. They will then follow the directions on their worksheet.</li> </ol>	<ul style="list-style-type: none"> <li>• FDA Food Facts Gluten and Food Labeling</li> <li>• USDA Labeling Organic Products</li> <li>• Student Understanding Food Labeling Worksheet</li> <li>• Sticky notes</li> <li>• Markers, highlighters, colors</li> <li>• Laptop or computer per student or per team</li> </ul>
<p><b>Activity 3</b> 85 Minutes</p>	<ol style="list-style-type: none"> <li>1. Students will be given a copy of the Student Sweetpotato Food Labeling Choice Board. These activities are ranked as Tier I, II, and III. Tier I is the least difficult and Tier III requires the most thought or effort. <ul style="list-style-type: none"> <li>• The instructor can choose to differentiate instruction and assign members of the class various tasks based upon ability, learning styles, etc.</li> <li>• Depending on how much time you would like to spend, you can have students choose between one to all of the activities in the row, from each tier, or as an entire choice board project.</li> </ul> </li> <li>2. Allow students to use a personal device, computer, or laptop.</li> </ol>	<ul style="list-style-type: none"> <li>• Student Sweetpotato Food Labeling Choice Board</li> </ul>
<p><b>Summary/Evaluation</b> 5 Minutes</p>	<ol style="list-style-type: none"> <li>1. Students will access Purpose Games and play the review game. They should play the game on their personal device or a computer until they reach 100%.</li> <li>2. When the student reaches 100% he or she should show the instructor.</li> <li>3. The Food Labeling Purpose Game can be found here: <a href="https://www.purposegames.com/game/sweet-potato-food-labeling">https://www.purposegames.com/game/sweet-potato-food-labeling</a></li> </ol>	<ul style="list-style-type: none"> <li>• Food Labeling Purpose Game</li> <li>• <a href="https://www.purposegames.com/game/sweet-potato-food-labeling">https://www.purposegames.com/game/sweet-potato-food-labeling</a></li> </ul>

**Source/Other  
Resources**

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"Sweetpotato Biscuit Recipe." Kelly's Outer Banks Restaurant & Tavern, 4 Nov. 2013, [kellysrestaurant.com/sweet-potato-biscuit-recipe/](http://kellysrestaurant.com/sweet-potato-biscuit-recipe/).

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