



October: 3-5

Is it a Fruit or a Vegetable?



South Carolina Farm to School Lessons

Compiled by:
Clemson University Education Coordinators

Lynn R. Adcox, BS
Karen Bunch Franklin, MS
Yenory Hernandez-Garbanzo, PhD

Lesson Support Staff:

Brittney Linton, BS
Ginger Loberger, BS

Advisory Committee:

Katherine Cason, PhD, RD, LD
Kattia Blanco, MS
Sarah Griffin, MPh, PhD
Patsy Smith, MEd
Kristen Welch, MS
Marlyne Walker, MS, RD



Overview

Welcome to the South Carolina Farm to School October Agriculture Education Lesson! This lesson contains information & hands on activities for teaching grades 3-5 about the *Certified South Carolina Grown Program* & the *differences between fruits & vegetables*.

These lessons are designed to be delivered over a four week period, noting that introduction & activities will be supplemental to existing curriculum. Each activity of this lesson is approximately 15 minutes.

Estimated Total time: 60 minutes

Teacher Background



What is Certified South Carolina Grown Program?

The Certified South Carolina Grown program is a new, exciting cooperative effort among producers, processors, wholesalers, retailers & the South Carolina Department of Agriculture (SCDA) to brand & promote South Carolina products. South Carolina products include a wide variety of fruits & vegetables that will be promoted throughout the Farm to School educational lessons. In order to support the South Carolina Grown program, our primary goal is to educate children on identifying fruits & vegetables with the Certified South Carolina Grown logo. The Certified South Carolina Grown logo signifies first quality products, grown in South Carolina that meet the U.S. #1 Quality Grade Standards, or higher U.S. Grade Standards, whichever is the accepted USDA industry grade standard for the commodity. One of the main benefits of including this program in the farm to school lessons is that children and their families will be able to easily identify, find & buy South Carolina fruits & vegetables.

Now is the time to look for the Certified South Carolina logo in the supermarket, roadside market, community or state farmers market. For more information about this program visit <http://agriculture.sc.gov>.

Vocabulary Used in Background Information Sheet

botanic	having to do with a branch of biology dealing with plant life
cardiovascular	of, relating to, or involving the heart and blood vessels
commodity	a product of agriculture or mining
coronary heart disease	a condition and especially one caused by atherosclerosis that reduces blood flow through the coronary arteries to the heart and typically results in chest pain or heart damage
duty	a tax on imports
fruit	the usually edible reproductive body of a seed plant, especially one having a sweet pulp associated with the seed; a succulent plant part used chiefly in a dessert or sweet course
importer	one who brings (as merchandise) into a place or country from another country
government entity	a government organization that has an identity separate from those of its members
maintenance	support or provision for something
nutrition	the act or process of nourishing or being nourished

ovary	the enlarged rounded usually basal portion of the pistil or gynoecium of an angiospermous plant that bears the ovules and consists of one or more carpels
statistics	a branch of mathematics dealing with the collection, analysis, interpretation, and presentation of masses of numerical data
tariff	a schedule of duties imposed by a government on imported or in some countries exported goods
vegetable	a usually herbaceous plant (as the cabbage, bean, or potato) grown for an edible part that is usually eaten as part of a meal

Lesson Checklist



F2S Objective:

At the end of the lesson students will be able to:

- * Identify the "Certified South Carolina Grown" promotional program.
- * Identify regions of South Carolina where apples are grown
- * Understand and recognize the difference between fruits and vegetables.
- * Prepare a fruit snack using the Palmetto Pick of the month (apples).



Materials:

- * Variety of Fruits and Vegetables or Powerpoint
- * South Carolina Commodities Map
- * Certified South Carolina Grown Logo (Appendix A)
- * South Carolina Map (Appendix B)
- * SC Fruits & Vegetables Explorations worksheet (Appendix C)
- * Fruit or Vegetable? Worksheet (Appendix D)
- * Power Point Slide (sent electronically)
- * Apple Seed Video (sent electronically)
- * Garden Based Learning video (sent electronically)
- * Taste testing ingredients/tools: Apples, water, cinnamon, sugar, knives, cutting board and blender



National Health Education Standards

2.5.2	2.5.4	2.5.5	3.5.1	3.5.2.
4.5.4	5.5.1	8.5.1	8.5.2	

SC State Standards

ELA 4-2.2	Analyze informational text to draw conclusions and make inferences.
ELA 4-2.4	Create responses to informational texts through a variety of methods (for example, drawings, written works, and oral presentations).
ELA 4-2.6	Use graphic features (including illustrations, graphs, charts, maps, diagrams, and graphic organizers) as sources of information.
ELA 4-4.1	Generate and organize ideas for writing using prewriting techniques (for example, creating lists, having discussions, and examining literary models).
ELA 4-5.3	Create written descriptions using language that appeals to the readers' senses.
ELA 4-6.2	Use print sources (for example, books, magazines, charts, graphs, diagrams, dictionaries, encyclopedias, atlases, thesauri, newspapers, and almanacs) and non-print sources to access information

Lesson Essential Components

Lessons profile	Page(s)	Yes	No	Notes
Palmetto Pick of the Month	8-9	★		Tasting activities with apples
Health Education Standards	8-9	★		
SC-Cross Curricular Standards	8-9	★		
SC-F2S Behavioral Goals	8-9	★		
Cooking Activities	8-9	★		
Tasting Activities	8-9	★		
Physical Activity			★	
Food Safety	8-9	★		
School Food Garden	9		★	
Student to Farmer Connections (i.e. field trips, talks)	8	★		
Student to Chef Connections			★	
Farm to Cafeteria			★	
Provision of scientific knowledge/rationale	8-9	★		
Risks and benefits of healthy behaviors			★	
Obstacles, Barriers & Solutions			★	
Family involvement and other supports		★		Family Activity Letter
Set goals and monitor progress			★	
Other hands on activities:	8-9	★		Team Activities, Presentations

Let's Learn!

Let's buy SC Fresh Produce!

Estimated Time: 15 mins¹

1. Prior to this class, obtain SC fruits & vegetables (F & V) from a local food store and/or local farmer (tomatoes, peaches, celery, apples, lettuce).

Preferably, the store, farmers' market &/ or farm should be near your school & supported by the "Certified South Carolina Grown" promotional program.

2. Set out the fruits & vegetables so the students can see them clearly. Use the "**Certified South Carolina Grown**" logo (Appendix A) to indicate that the fruits & vegetables are from South Carolina.

3. Ask students if they are familiar with the "Certified South Carolina Grown" promotional program, which is developed & sponsored by the South Carolina Department of Agriculture. Ask students to speculate on what they think this program is. Give a brief explanation of the services provided by the SCDA & the function of the program. Use the web site address to obtain information of the program (<http://agriculture.sc.gov>)

Note: Remember, that you can use the Farm to School grant funds to purchase the F&V required for this lesson; or if you prefer not to purchase F&V you may use the power point that will be sent electronically with this lesson. Additionally, if you need assistance identifying places to purchase SC fruits and vegetables, feel free to contact your regional coordinator.

Activity 1

Identifying different regions in South Carolina where peaches and tomatoes are grown.²

Estimated Time: 15 mins

1. Show the students the South Carolina Commodities Map (Provided with the school F2S Supplemental Lessons binder).
2. Handout the **map of South Carolina** (Appendix B)

3. Have students put a star (or color in) where they live on the map of South Carolina.
4. Have students draw or color on the map where the different types of apples are grown in South Carolina.
5. Discuss where is the closest place (in relation to them) to buy locally grown apples in South Carolina.

Activity 2

Exploring differences & similarities between fruits and vegetables?³

Estimated Time: 20 mins

1. Hand out the the **SC Fruits & Vegetables Explorations** worksheet (Appendix C).
2. Tell the students that fruits & vegetables are different mainly of how & where they are grown, but also by how they are eaten & which parts are eaten.
3. Have the students observe the fruits and vegetables. Encourage them to use all of their senses, including taste.
4. Ask them to write in their worksheet what they already know about fruits & vegetables.
5. Challenge students to discover something they did not know about fruits & vegetables. Encourage students to find information from internet or from their school media center. Have students record their findings on the **SC Fruits & Vegetables Explorations** worksheet (Appendix C).
6. Ask volunteers to share their observations. Accept all answers. Encourage discussion, questions & debate among the students.
7. Distribute and discuss "**Fruit or Vegetable?**" Worksheet (Appendix D) to give students more practice in distinguishing between the two.

★ Palmetto Pick Activity

Cooking activity & Taste Test

Estimated Time: 10 mins

Using the **Apple Fact Sheet** (either on Smart Board or copy & hand-out to students), discuss the different varieties of apples.

- Have the students heard of each variety?

- How many varieties have they tried?

In addition, you can play the *Apple Seed* video (1:10 mins) while you prepare apple sauce. Video will be sent electronically & can also be found at <http://www.nourishlife.org/videos/apple-seed/>.

The **Apple Fact Sheet** (Appendix G) lists the different tastes of the varieties of apples. For the taste test activity, consider using different varieties of apples (maybe two or three) so students can taste the difference in the varieties.

1. Make applesauce to demonstrate a healthy snack the students can make at home. This is also a great way to have a mini-taste test in class.
2. Have students wash their hands (with soap, with warm water for 20 seconds) & reinforce that it is important. Show the students that you have washed the apples before beginning.
3. Discuss the taste, texture, & healthy ingredients used in the applesauce. Discuss how this is a simple, easy, & fast alternative snack or desert. While preparing the applesauce, discuss briefly the Farm that provided your fresh SC apples. (Regional Coordinators can provide this information.)

Ingredients:

6 large apples

3/4 cups of water

Cinnamon to taste

Sugar to taste

Directions:

- Peel, core, and cut apples into chunks (the students could help cut the apples).
- Put water and a few chunks of apples in blender.
- Blend mixture and add remaining apple pieces.
- Add sugar and cinnamon to taste.

Servings: 6

<http://www.eartwiggles.com/Recipes/>

[Apple_kids_recipes.html](http://www.eartwiggles.com/Recipes/Apple_kids_recipes.html)

★ Gardening Activity

Garden Thoughts

Estimated Time: 10 min

1. Tell the students that as part of the Farm to School Program your school will initiate or revitalize a school garden.

2. You can play the *Garden Based Learning* video (3:04 mins). This video will allow students to view an example of a school garden. This video can also be a starting point to discuss how your students would like to participate in their school garden. Video will be sent electronically & can also be found at <http://vimeo.com/11710904>

3. To conclude this activity, ask your students to begin a gardening journal. They will need one small notebook, a pencil, & a ruler.

4. Suggest to the students to use this journal to chart plant growth (weekly measurement from germination until harvest), write essays, record type of seeds, record weather, draw pictures, add pictures, etc.

Evaluation

Formal Assessment:

1. Review **SC Fruits & Vegetables** worksheet & discuss the differences & similarities in classifying fruits & vegetables.
2. Review the Gardening Journal

Informal Assessment: Observe participation in lesson activities. Complete survey at end of month (survey will be sent electronically).

¹ Adapted from South Carolina Ag in the Classroom Curriculum, SC Farm Bureau Federation.

² Adapted from Minnesota Agriculture in the Classroom Foundation and Program, Minnesota Alliance for Geographic Education, and the Minnesota Department of Agriculture. Food For Thought Connecting Minnesota Geography, Agriculture and Communities.

³ Adapted from Koch PA, Calabrese A, Contento IR. Farm to table & beyond. Grades 5 or 6. Teachers College Columbia University and the National Gardening Association. 2008 (1):38-59.

Resources



Books:

- How do apples grow? by Betsy Maestro
- Apple sauce season by Eden Ross Lipson
- For finding pictures of F&V and for promoting visits to the local farmers' market: The book titled "A Visit to the Farmers' Market" by Peggy Sissel-Phelan.
- For gardening based learning: The book titled: "The Growing Classroom" by Roberta Jaffe & Gary Appel



Websites:

- For information of the SC Certified Grown Program: <http://agriculture.sc.gov>
- For information of gardening: <http://www.gardeningwithkids.org/> and <http://agriculture.sc.gov/content.aspx?ContentID=789>
- Clemson University Nutrition Education and Information Resource Center: <http://virtual.clemson.edu/groups/NIRC/>

Others:

- To initiate or revitalize your garden you can contact your Agriculture Farm to School Regional Coordinator or you can also contact your community resources such as the Clemson Extension office.

Appendix A
Certified South Carolina Grown Logo



Appendix B
South Carolina Map



Appendix C
SC Fruits & Vegetables Explorations

Name:

Date:

Answer the following questions:

1. What do you already know about fruits?

2. What do you already know about vegetables?

3. Look at the fruits and vegetables very closely and record some of your new observations.

4. Choose one fruit and one vegetable. Make a drawing of the selected fruit and vegetable and what you observe from each of them.

Fruit	Vegetable

4. Based on what you already know about fruits and vegetables and what you have learned from your observations write a research paper about the nutrition and agriculture differences that exist between fruits and vegetables.

Appendix D
Fruit or Vegetable?

Directions: Below is a list of farm products that you may find in the produce department of the grocery store nearest your home and/or school. Decide whether each one is fruit or a vegetable. Write “F” in front of each fruit and “V” in front of each vegetable.

- ____ apples
- ____ blueberries
- ____ peaches
- ____ corn
- ____ lettuce
- ____ grapes
- ____ onions
- ____ plums
- ____ potatoes
- ____ okra
- ____ pineapple
- ____ turnips
- ____ peas
- ____ tomatoes
- ____ oranges
- ____ broccoli
- ____ apricots
- ____ radishes
- ____ strawberries
- ____ watermelon
- ____ celery