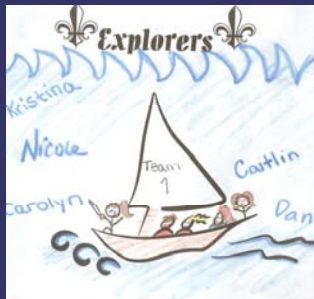




Explorer's Homepage!



Significant Websites

[Pine Island](#)

[Sprout Creek Farm](#)

[Hawthorne Valley Farm](#)

[Barton Orchards, Poughquag](#)

[Stony Kill Education Center](#)

Homepage of Agricultural Case Study by
Kristina Anderson, Daniel Black, Nicole
Fiore, Caitlin Garrity, and Carolyn Sumcizk

- Team Logo
- Industry Logo
- Thesis
- Agriculture at a Glance/(Midterm Recap)
- Timeline – History
- HRV – Present Day
- Guidebook
- Itinerary
- Lesson Plan
- Conclusion
- Sources

✠ Explorers ✠

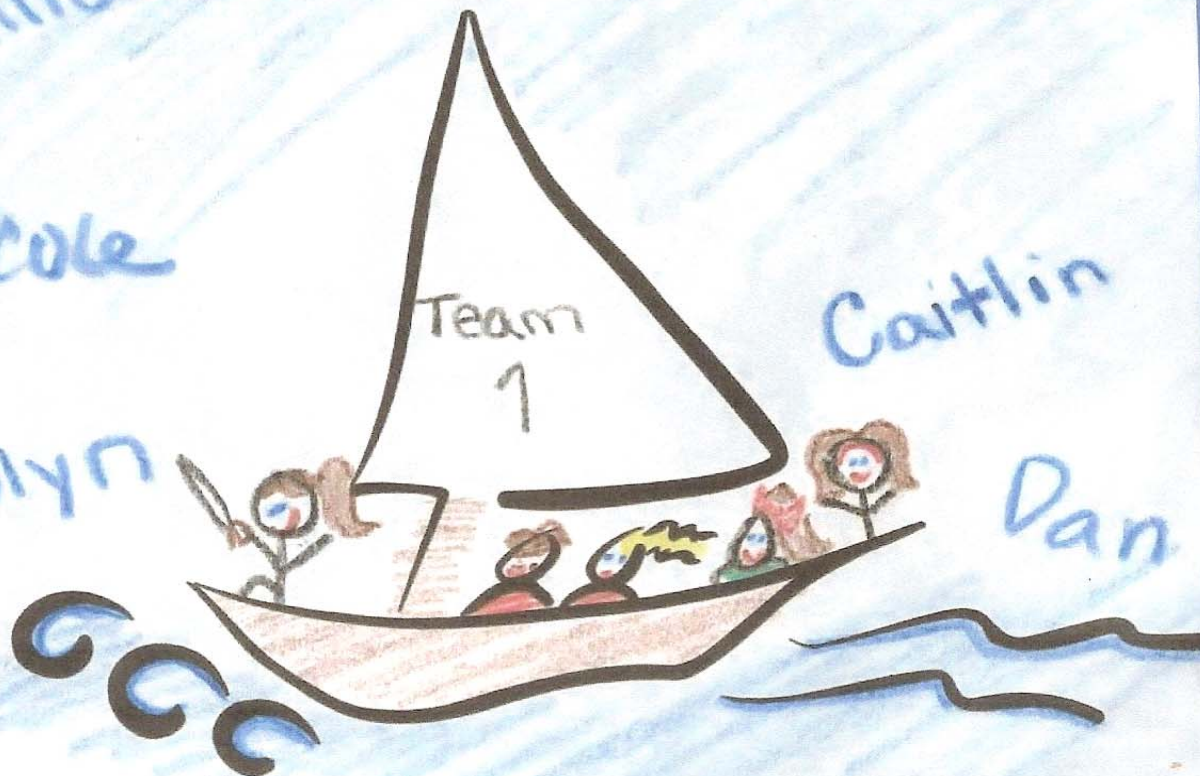
Kristina

Nicole

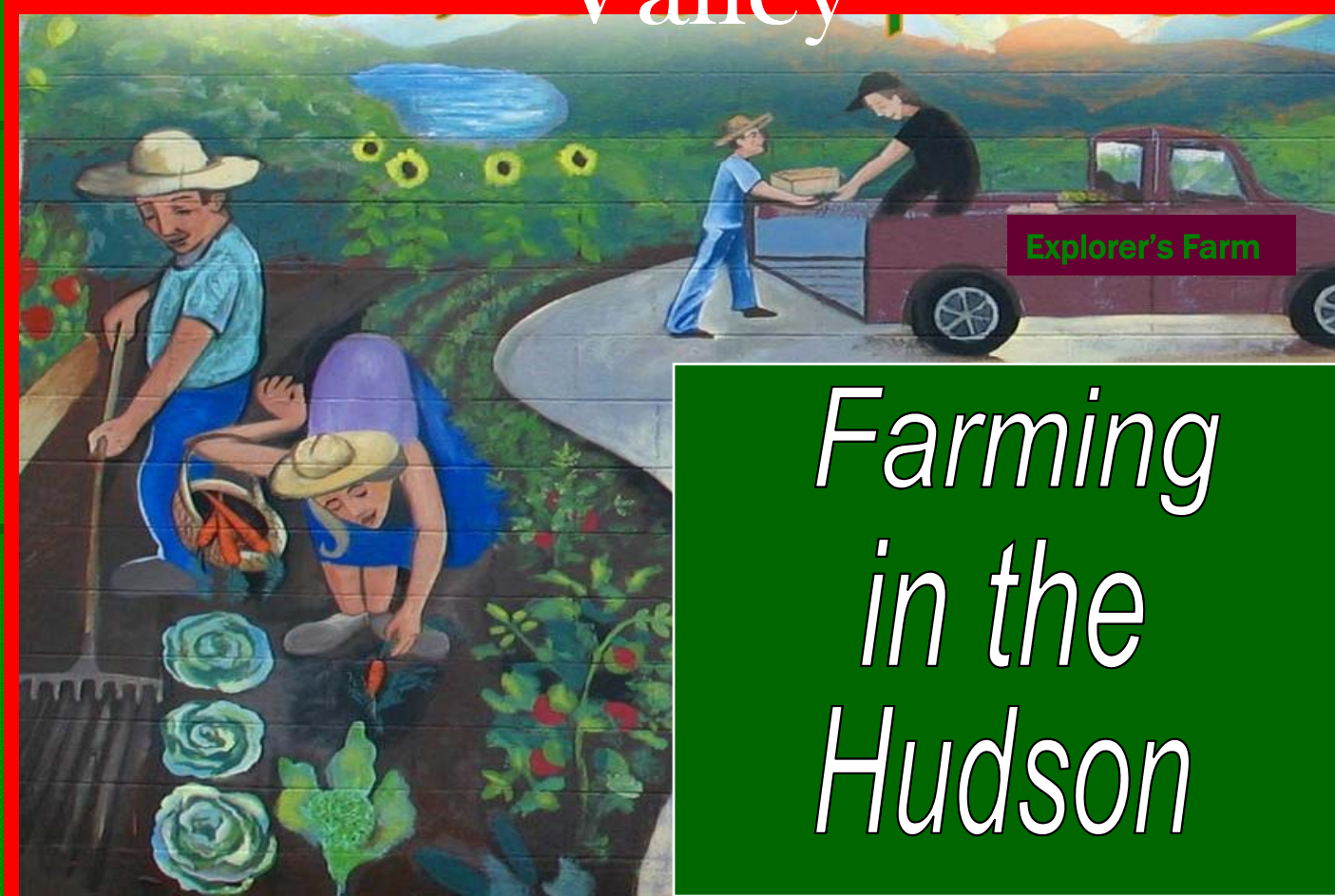
Caitlin

Carolyn

Dan



Agriculture in the Hudson River Valley



Farming in the Hudson

“Farming looks mighty easy when your plow is a pencil and you're a thousand miles from the corn field” -Dwight D. Eisenhower

Thesis

As agricultural technology developed in regions *other* than the Hudson River Valley, its direction was characterized by a desire for increased production/efficiency and rapid expansion. In the valley, however, this development was limited by geological and topographical constraints, and subsequently formed a culture of farming that is old-fashion, small scale, simplistic, and uniquely “Hudson River” in the sense that it defies the industry’s norms.

Agriculture at a Glance

Integrating agriculture's
history with classroom instruction

Exploring key sites and
Synthesizing their significance

**Understanding Hudson
River Valley agriculture and
Comparing it to broader contexts**

Interpreting graphs
and other visual abstractions

Articulating history, honoring the past

Technological Evolution of Farming 1600s to 1900

Borrowed from: <http://inventors.about.com/library/inventors/blfarm1.htm>

1600s & 1700s

1800s

1700s and before:
Farming machinery
consisted of animals

1797: First Cast
Iron Plow
introduced

1834: Reaper introduced

1837: Chemical
Fertilizers become
available Commercially

*With sickle walking plow:
250-300 labor-hours**

**Required labor hours per 100 bushels of wheat*

Technological Evolution of Farming 1600s to 1900s

1800s

1870: Silos first used

1868: Steam
Tractor first used

With gang plow, seeders
and threshers: 40-50 labor-
hours*

1st Agricultural Revolution

1856: 2-horse straddle-row
cultivator introduced

Teams of horses

Gang plows

1855: Potash first paying crop
Sheep and Chicken

Erie Canal

The growing use of factory-made agricultural machinery increased
farmers' need for cash and encouraged commercial farming

**Required labor hours per 100 bushels of wheat*

Technological Evolution of Farming 1600s to 1900

1900s

2nd Agricultural Revolution

1925: Milk
Production

1946: Transition from horses
to tractors as primary means
of power source

1920:
Fewer
Hands
leading to
machinery

1926: primitive tractor
advances, "light tractor"
develops

*With Tractor and 10' plow:
6½ labor-hours**

1910: Primitive gas
tractors emerge

**Required labor hours per 100 bushels of wheat*

Technological Evolution of Farming 1600s to 1900s

1900s (continued)

1970s (developed)
1980s and after (popularized):
Mechanized Monocropping

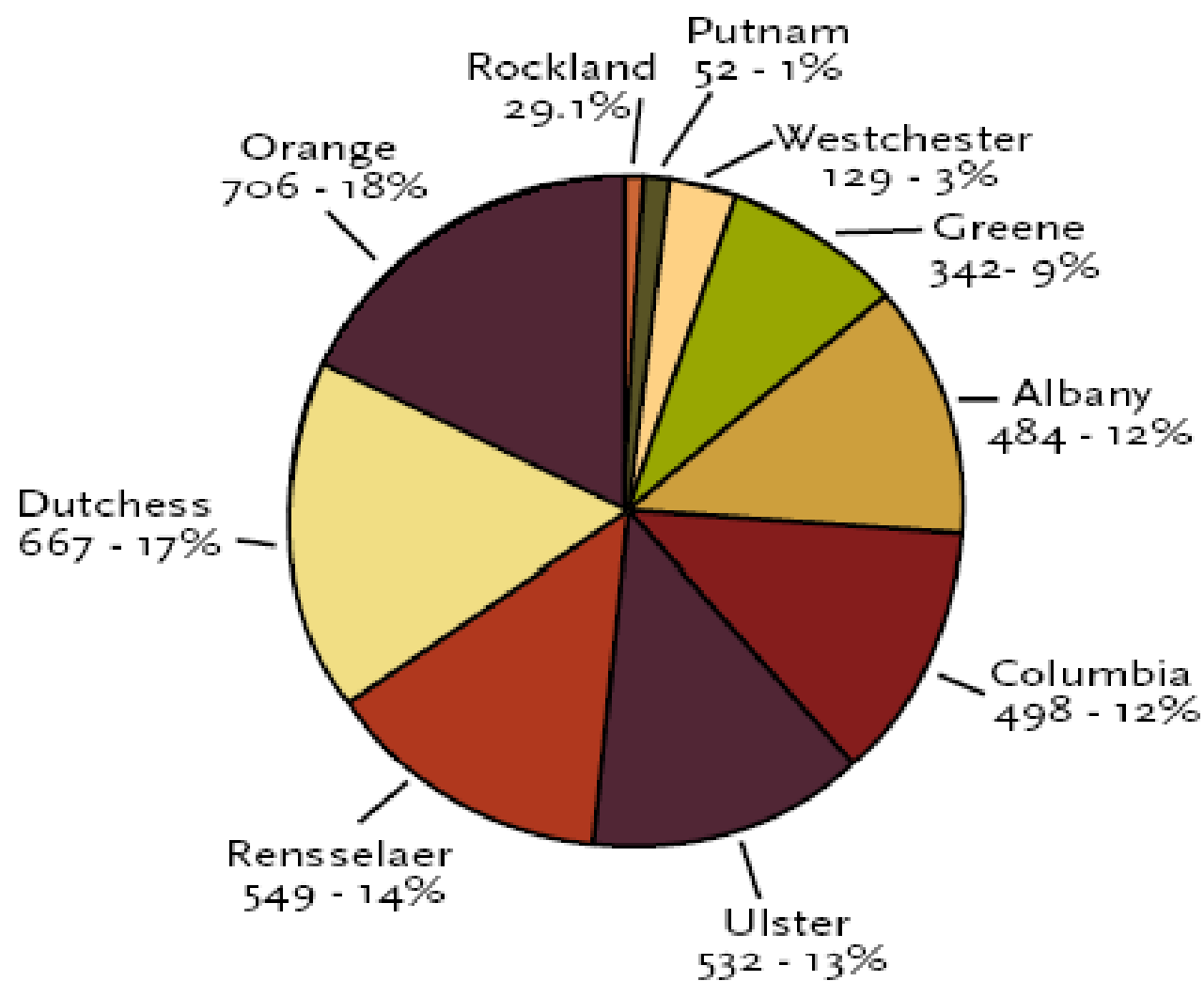
> ½ Million Livestock

1965-1970: mechanical
harvesting of primary
crops becomes
dominant method

*With industrial
modernization:
6½ labor-hours**

1950: Use of
Anhydrous Ammonia
to enrich soil becomes
common practice

**Required labor hours per 100 bushels of wheat*



DISTRIBUTION OF FARMS BY COUNTY

Sprout Creek Farm

<http://www.sproutcreekfarm.org/about/about.html>

Dutchess County, New York

Hours: Wed - Sat 10 a.m. - 6 p.m. and
Sun 10 a.m. - 4 p.m.

Education Programs: 845.485.8438

Market Phone: 845.485.9885

1



- **Historical Description:** In 1982 in a school for girls in Greenwich, Connecticut believed that learning should be by action because it focuses students' values and creates broader boundaries. The school believes that girls could learn this by living on a farm in Greenwich. Girls, ages 14 to 16, from Sacred Heart Network schools throughout the United States would lived at the farm in tents for the first three summers, tended the 2 acre garden, cared for the animals, learned to spin wool, bake bread, prepare a meal, and make baskets. Due to the success of the program lead to a summer day program was added to the high school residential program then younger children. In 1987, the farm administrators were approached by the estate of Elise Kinkead, who was Poughkeepsie, NY resident, and received Miss Kinkead's Woodford Farm, in the town of LaGrange. The property was subsequently given to the Society of the Sacred Heart, to be operated as Sprout Creek Farm. The farm in Greenwich close and Sprout Creek became popular. By 1992, every available slot on the program calendar that was available at the farm was filled with school classes, Brownie and Girl Scout troops, and other groups. The mission of the farm has developed and strengthened as well in the years since 1990. Making the experience of farming available to children of all ages and recognizes that children are disconnected from their agricultural heritage, even from the sources of their food, and the farm emphasis on "doing" the farming with children.
- **The site:** Sprout Creek Farm is a 200 acre working farm that incorporates educational and spiritual developmental programs for young and adults. The main focus of the farm's mission is to instill the importance of the natural world and "open the minds" of young children by encouraging their interest about the natural environment. The farm also fosters learning experiences with science and social studies curriculum. The farm produces organic goods and dairy goods as well as other products. There is a small market that is part of the farm, where many of the goods such as homemade goat cheese, milk, honey, and vegetables. When people go to the farm, they would learn the cultural aspects of farming in the Mid-Hudson which would mainly focus on the idea of organic farms and the techniques used.
- **Direction: From Taconic Parkway:**
Take Route 55 West Poughkeepsie exit. Straight on 55 for 1.5 miles (through four lights).
Left on Lauer Road and Continue straight for 2 miles. Farm on Left. **From downtown Poughkeepsie:**
Take Route 55 East for 4 miles. Right on Noxon Road. Continue through 2 lights. Left on Lauer Road. Farm is on the right.

Hawthorne Valley Farm

www.hawthornevalleyfarm.com/index-2.html

Ghent, New York

Hours: Tours of the Farm can be scheduled by calling Rachel Schneider at 518.672.7500 ext 105

Phone number: (518) 672-7500

2



- ***Historical Description:***

The Hawthorne Valley was founded in 1972 from a vision shared by educators and farmers. They worked together the idea of promoting “social and culture renewal through the integration of education, agriculture in the arts.” This idea stems from for forwarding thinking and planning to the future.

- ***The Site:*** The farm is a 400-acre farm that is committed to land stewardship based on sustainable agriculture and to the distribution of high quality organic food. The farm produces food through biodynamic farming and the techniques used on the farm reflect the commitment to protecting and improving the health of the earth and its inhabitants. There are no fertilizers, pesticides or herbicides on the farm. They only use manure, composed and it own feeds to keep for farming. Through the development of economic, educational, and cultural relationships, the farm main goal is to raise the social and ecological awareness of individuals regarding the production of their food. Not only would the people get to see the farm, they would get to see the ecological and cultural part of how the farm crops are produce.

- ***Directions:***

From I-95 North:

Head North on I-95, over the Geo. Washington Bridge. Head North on Route 87 (Major Deegan Expressway). From Route 87, take the Taconic State Parkway North. Take the Route 217/ Philmont/ Harlemville exit off the TSP. Go right at the end of the exit ramp. HVF is 1½ miles east; Farm and Farm Store are on the left.

From Albany - Interstate 90 South:

Follow signs to Boston (Interstate 90 East). Take Exit B-1 for the Taconic State Parkway. Head South on TSP and follow as for coming from Boston.

From the Taconic State Parkway (heading north or south): Take the Route 21/Philmont/Harlemville Exit. Go right at the end of the exit ramp. HVF is 1½ miles east; Farm and Farm Store are on the left.

Barton Orchard

<http://www.bartonorchards.com>

Dutchess County, NY

Hours: The Farm stand is open 9-5 daily

Maize Quest opens August 5th –
runs through October 29th

Phone number: 845-897-2266

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- **Historical Description:**

Barton Orchards has been known for its orchards, which have been an integral part of Hudson River Valley for centuries. Located about 60 miles north of New York City, it has been used in recent years as a getaway for city-dwellers who want to escape city life. It is a good representation of apple-growing agriculture, which is very significant to the Hudson River Valley.

- **The Site:** The crops that are grown on the farm are for the costumer. Barton Orchard is a commercial production farm. Barton is a good orchard for family to come and see the farm and see the different activities and be apart of farm life and the cultural aspect of the farm life. Barton Orchards offers a variety of locally grown products for the people that come to the farm. The products that the farm offers for the families are local Cider, homemade doughnuts, pies and bread, seasonal gifts, Christmas trees, wreaths and plants, gift packs, and vegetables in season. Families get to enjoy the farm fun through petting zoo, hay rides, music, pumpkin carving, and corn stalks, and the best of the entire "great outdoors".

- **Directions:** Located one hour north of New York City in the beautiful lower Hudson Valley, Barton Orchards is right off of I-84. From Interstate 84, take Exit 15, Lime Kiln Rd., and travel south for one mile. Turn right at the Stop sign onto East Hook Rd and the farm will be on the right side of the road.

Stony Kill Farm Environmental Education Center

<http://www.dec.state.ny.us/website/education/stonykil.html>

Wappingers Falls, NY

Hours: Weekdays: 8:45am- 4:30pm; Saturdays: 9am - 4:30pm;

Sundays: 1pm- 4pm

(April, May, June, September, October)

Open Barn: Saturday 11am -1pm

Phone number – (845)831-8780

4



- **Historical Background:** In August 8, St Gilan Verplanck and Francis Rombus brought 85,000 arcs of land from Wappinger Indians. The “Great Partition of 1708” divided the land into three parts and the middle section is the land that Stony Kill Farm is on. The Farm was completed in 1845 and it contains 756 arcs of land. In 1860, the barn was built to put machinery and harvest crops in. In 1942 John Bayard and James deLancy Verplanck gave the 756 arcs to NYS Education Department. The State University of Farmingdale used the farm to teach students basic agriculture, foresting conversation and landscaping principles. In July 1973 the farm was turned over to NYS Department of Environment Conservation.

- **The Site:**
Stony Kill Farm is an education center to enhance environmental awareness and appreciation of the natural world. This facility includes over 1000 acres of country side, farmland, ponds, woodlands, meadows, cultivated fields, and fallow fields. Located in Dutchess County in southeastern New York State, it offers a special setting where visitors discover the delicate interweaving of all living things. The Verplanck Manor House visitor center houses a library where you can simply come and identify a bird or animal or do research on various topics on the environment or the farm.

- **Directions:**
A pleasant drive through New York State's Hudson River Valley brings you to the rolling countryside of Stony Kill Farm (Interstate 84, Exit 11). Approximately 1 hour north of New York City and 2 hours south of Albany

Middletown Thrall Library

<http://www.thrall.org/>

Middletown, NY

Hours: Monday- Thursday: 9am-8pm
Friday: 9am-6pm; Saturday: 10am- 5pm
Sunday: 1pm-5pm

Phone number- (845) 341-5454



5

- **Historical Background** – the history of “black dirt”:
The formation of Pine Island’s renowned “black dirt” was caused by glacial activity depositing concentrations of minerals and organic nutrients over the course of thousands of years. Almost immediately after the glaciation, lakes formed and the process of sedimentation coupled with the decaying of organic matter into a muck at the bottom of the lake enhanced the soil’s mineral content. About 100 years ago, when the lakes dried up, immigrants realized the indispensable value of this land in its potential for agricultural production. This library was selected because of the research inquiry which has led to our understanding (outlined above) and to an understanding of the cultural identities of its occupants.
- **The Site:**
The purpose of the library is that it was the location where research was conducted that explored the origins of the black dirt. People can look up records on the agriculture and its history of the black dirt region in Orange County.
- **Directions:**
Traveling South on the Thruway
Take Exit 17 off the Thruway to Route 84 West, then follow the directions from Route 84 traveling west (below) to find the library.
Traveling North on the Thruway
Take Exit 16 off the Thruway to Route 17 West, then follow the directions for Route 17 traveling west (above) to find the library.

Itinerary



■ Day one, Stop one:

- 9:00 am : Begin the day at Sprout Creek Farm Creamery, where we are going to learn how to make cheese. For centuries people all over the world have developed the process of making and aging cheese. Learn all about the art and science of cheese-making at the Sprout Creek Farm Creamery, and help yourself to all kinds of available samples.

■ Stop two:

- 12:00 pm : Hawthorne Valley Organics only Bakery is one of the few remaining farms that produces every ingredient in their bakery organically. Even minor ingredients like prunes, dates, hazelnuts, blueberries and chocolate chips are certified organic. Here we will learn how to bake bread using these fresh ingredients and a European style bread oven. We will learn how to make as well as sample all types of breads, scones, muffins, granola, cakes, cookies and pastries.

■ Day two Stop three:

- 9:00 am: We will begin our day at Stony Kill farm trails for a brisk one-mile hike. Stony kill has a well developed and maintained trail system with trails of a variety of lengths through a number of habitats: woodland, thickets, fields, pond and marsh. We will perform the Woodland Trail (*easy 1 mile loop*)
- This easy crushed stone and clay mixture trail circles through a wooded swamp that was once a farm field. Now forested by hardwoods, it has become home to an abundance of wildlife like the barred owl, red-tailed hawk, garter snake, the eastern gray squirrel, and many songbirds. There is also a wildflower loop for us to explore.

■ Stop four:

- 11:00 am: Apple picking at Barton Orchards. Barton Orchards grows varieties of apples in their orchards, some are available to pick and some are in baskets from other area farms: Cortland, Golden Delicious, Red Delicious, Empire, Fuji, Galas and Macintosh . You can also try your luck at the Giant corn maze or become an amateur Gemstone miner, as one of the farms many activities .

■ Stop Five:

- 4:00 pm : We will visit the historic Middletown Thrall Library
- We will enter the Local History room on the second floor where there are multitudes of resources including, city directories, genealogies, railroads, canals, the Catskills, church records, cemetery records, folklore, and more.



Lesson Plan

Sprout Creek Farm



- **Topic:** A trip to a local farm in the Hudson River Valley
- **Objective:** For the students to understand the importance of agriculture in the Hudson River Valley. Sprout Creek Farm offers special emphasis on fostering co-operation skills, on making real farm experiences available to children and on giving young people the opportunity to learn by doing things themselves. They help children develop creativity and ingenuity while making a point of teaching children to see the value and rewards of real work in a nurturing and supportive environment.
- **Grade Level:** 5th Grade
- **Time Frame:** Five hours.
- **Materials:** A pen and notebook to take. A lunch to eat later in the day. An if necessary hand sanitizer.
- **Content Area:** Environmental Science (Agriculture)
- **Model Being Used:** The students will be learning hands on and visually. They will witness for themselves what happens on a farm each day and all that a farmer must go through. They will also be allowed to ask as many questions as they would like.

Lesson Plan



Procedure: I will be breaking the class into three different groups. Each group will have a specific area of Sprout Creek to focus on with the understanding of writing a short paper after their visit to the farm. They will need to ask questions on their topic and look around for details of farming that seem interesting to them.

Group 1: Will focus on the dairy aspect of farming. They will learn how to milk a cow and then ask the farmer different types of questions. Some of the guiding questions could be: How often each cow is milked? What steps are done to make the milk drinkable? What other animals on the farm can be used for dairy?

Group 2: Will focus on the agriculture of Sprout Creek. This group will learn how to plant different crops. Some of the guiding questions could be: when are the planting seasons? When are the crops harvested? What types of crops do they plant?

Group 3: Will focus on the tourism and market part of Sprout Creek.

- Some of the guiding questions could be: what is most popular about that farm, why people come to visit. When do the biggest crowds come? What are some of the things they sell?
- When the class returns back to school, we will briefly go over everything they saw at Sprout Creek Farm. Then as homework they would have to write a two page paper focusing on what their group was chosen to do. They also must say what they liked and disliked about the trip, and something that they may have wanted to spend more time on.

Conclusion: The students will learn about both agriculture and different farm animals. They will learn about the development of offspring and observe mother animals caring for their young and learn how cows, goats, and sheep give milk. The students will also concentrate on plant life, learning about the closed system of soil maintenance, germination, and the things essential for plant growth. They remove spent plants, spread manure, learn how to plant seeds, identify special characteristics of plants, measure seedlings, and prepare garden soil. Some of the programs will also help the students to strengthen connections to the land so that they understand the impact of human actions. Exploration of the forest—with its trees, watershed, animals, sights, and sounds—helps students understand their intimate connections to the earth. We are hoping students will leave Sprout Creek with a stronger understanding of the importance of farming and agriculture in the Hudson River Valley.

A Critique of Modern Methods

• *How the Hudson River Valley gets it right*

“A farm is or ought to be a factory in which plant and animal machines serve the economic machine in the most efficient way.”

“Efficiency has nothing to do with human or biological needs and desires.”

These quotes from Wendell Berry draw from decades worth of research and inquiry; if they may be regarded as true, The Hudson River Valley may be credited with unwittingly averting the universal tragedy of modern agriculture in that it (modern agriculture) reduces its capital resources -the land, the plants, the animals, and the workers- to depersonalized components of a larger, distant entity and exploits them. Hudson River Valley agriculture is fundamentally limited in its capacity to so exploit, and therefore has been forced to preserve the dignity of those capital resources.

Conclusion

The progression and advancement of agriculture in the Hudson River Valley throughout the course of history has come largely from decisions made outside the domain of the farmers themselves, which clearly has led to a farming culture against the interests of traditional methods and practices.

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<http://www.thrall.org/>

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The End!!!



Q & A