



Chapter 3 – Open Spaces Along the Way - *Seaway Trail Wildguide*

Lesson #2 Agriculture

Grade 4 – 6

Subject: Science, Economics

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Anticipatory Set:

What are the different kinds of agriculture we have in New York State? What are the different types of produce you see growing in New York State? Why is it important to New York to have these types of produce? Why are we able to grow the different produce in New York?

NYS Learning Standards:

Mathematics, Science, and Technology Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Objectives:

Students will be introduced to the agricultural economics of New York State by mapping out the different types of agriculture in New York. The students will look at the map that they have created by placing the different products and produce in each county of New York and discuss why they think certain produce grows in the areas they do.

Purpose:

Have students understand how the soil deposits and the formation of the land from the Ice Age has left the soil suited for certain types of agriculture in New York State.

Summary: Agriculture in New York

Most of New York State was covered by glaciers in the Ice Age leaving behind land with deep, fertile soil in some places. In the western part of the state you will find a number of produce that grows very well in this area like sweet corn, peas, carrots, squash. In the western and other parts of the state you will find hay, corn, wheat, oats, barley and soybeans. In the Hudson and Mohawk valleys you will find pumpkins and blueberries. The glaciers also formed a number of swamp areas. Some of these areas have been drained for rich humus soil called muckland. This soil is great for growing onions, potatoes, celery and other vegetables. Along the south shore of Lake Erie and the southern part of the Finger Lakes you will find a number of vineyards. New York State ranks in the top five states for growing apples, cherries, cabbage, potatoes, and onions. New York is also known for its dairy products and maple syrup. New York also has orchards growing plums, pears and peaches.

The following web site: <http://www.nass.usda.gov/ny/top10prod.PDF>
This web site gives you a number of maps that mark the top ten producing counties of a certain produce. You can use these maps in the lesson plan to have the students see and understand where the produce is grown in New York.



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Materials:

1. Four overhead maps taken from the web site showing the different produce grown in New York.
2. Stickers to represent the produce on the maps. Suggested stickers include corn, apples, grapes, cheese, dairy, corn, and wheat.
3. Four maps of New York State with counties marked on them for each student.

Teach:

1. Explain to the students the different types of produce we have in New York.
2. Take one of the overhead maps and discuss with the students where they find the produce located on the map. Point out where in New York produce seems to be located the most. Have students discuss why they think that particular produce grows in that area of New York.
3. Have the students take one of their maps and place the stickers of produce to match the map on the overhead.
4. Repeat using the other three maps on the overhead. Have the students place the stickers on the other three maps.
5. Once all four maps are completed ask the students to look over all four maps and ask them why they think certain areas grow certain produce.
6. Review with the students about the Ice Age and how the ice melted leaving the land with rich soil and swampy areas that seem to be ideal for growing produce.

Guided Practice:

The teacher will go around and assist the students as they place the stickers on the maps.

Closure:

Ask the students what are the affects the Ice Age have on New York State agriculture. Where in New York do crops seem to grow the most? Where does dairy and beef seem to be located the most in New York State? Why is this important for New York State economics?

Independent Practice:

Have the students write an essay on New York State agriculture using the maps as references. Have the essay cover information about the Ice Age and the type of soil found along the Seaway Trail and other parts of New York State. Have the essay include the importance agriculture in New York State for economic reasons.

Extended Activities:

1. Take the students to local farms, cheese factories, and wineries to learn how farmers decide what crops they are going to plant and how they plan and rotate crops in their area.
2. Have the students pretend their class is a farm. The class has to plan on what crops they are going to plant and how they are going to get the produce to the market.



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3. Have the students start some plants in the classroom. Have the students create a chart on the progress of their plant. You can have the students take the plant home and work with their parents in recording the progress of the plant for the next two weeks.

Web sites:

1. <http://www.nass.usda.gov/ny/top10prod.PDF>
This site gives you maps to use with your students on the different type of agriculture in New York.
2. http://www.nysstatistics.org/briefs/NYSSB_2-2.pdf
The site gives you the stats on the New York State agriculture for crops, farmland, milk cows and apple production based on counties.
3. <http://www.nyapplecountry.com>
This site offers a number of lesson plans you can use with the students. The site gives apple history and facts about New York apples.
4. http://www.newyorkcuisine.org/thefood/ag_alpha.asp
Gives you an alphabetic order of what is grown in New York.
5. <http://www.agclassroom.org/kids/stats/newyork.pdf>
This site is great for kids to get information on New York agriculture.
6. <http://www.cerp.cornell.edu/aitc/PDF/listening.asp>
This site offers a number of lesson plans for teachers with activity sheets, puzzles and songs for grades k-12.
7. <http://www.fb.com/today/class/nyfb.html>
American Farm Bureau - The site gives agriculture facts on New York State.
8. <http://www.cals.cornell.edu/cals/dept/education/Projects/AITC>
The site gives teacher a list of booklets and posters they can use in a classroom.
9. <http://en.wikipedia.org/wiki/New-York#Agriculture>
This site offers a lot of information on agriculture in New York State.

Books for children to read:

1. "Hooray for Dairy Farming" Bobbie Kalman, Crabtree Pub., Oct 1997, ISBN 0865056641 (ages 4-8)
2. "Milk: From Cow to Carton", Alili, Harpercollins Juvenile Books, Oct 1992, ISBN 0064451119, (ages 4-8)
3. "Farming", Gail Gibbons, Holiday House, April 1990, ISBN 0823407977, (ages 4-8)



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4. "Hooray for Orchard Farming", Bobbie Kalman, Bt Bound, Oct 1999, ISBN 061307985x, (ages 4-8)
5. "Food and Farming (Young Geographer) Susan Reed-King, Thomson Learning, Sept. 1993, ASIN 1568470541, (ages 9-12)
6. "Farming", Jane Drake, Ann Love, Kids Can Press, Oct. 1998, ISBN 1550744518, (ages 9-12)
7. "Farming" Jane Featherstone, Raintree/Steck-Vaughn, Jan 2000, ISBN 0817253718, (ages 9-12)