

Teacher Program Evaluation

Win a New York Agriculture in the Classroom prize pack just for teachers! Please take a few short moments to follow the link below and complete a survey to evaluate the Agricultural Literacy Week program, resources, and the presentation that took place in your classroom.

Teacher feedback is invaluable, and helps to shape the direction of all of our programs.

Follow the web address below and complete this evaluation before May 1, 2015. Multiple teacher names will be drawn at random to win prize packs of a \$50 value.

<https://www.surveymonkey.com/s/ALW15>

Special Thanks & Appreciation

All of the fiber used for this project was donated or sourced from New York State fiber producers. Thank you for your generous gifts to the thousands of students participating in Agricultural Literacy Week.

This project would not be possible with NYAITC Advisory Committee Member Mary Jeanne Packer, and the entire staff of Battenkill Fibers Carding and Spinning Mill in Greenwich, NY. Your dedication and support of the project is unsurpassed – thank you for your donations of product, time, and love.

Vocabulary

Shearing - cutting or clipping fleece or wool from an animal

Wool - the hair that forms the fleece of sheep

Fleece - the coat of wool that covers a sheep

Pasture - area of land where livestock graze

Carding - process that detangles wool before processing

Spinning - converting fiber into yarn

Skein - a length of yarn or thread wound in a coil

Weave - to interlace yarn or thread to form clothing or material

Yarn - thread made from fiber which is used for knitting or weaving

Warping the Loom - setting up the loom, or weaving machine, with the initial threads (warp yarn) to make a material

Shuttle - a device in a loom for passing the weft thread from one side of the loom to the other

Weft - the yarn woven across the width of fabric, interlacing through the warp yarn

Treadles - foot operated pedals used to give power to machines (like looms)

For additional vocabulary and photos, please visit www.agclassroom.org/ny

Additional Information and Resources

Books:

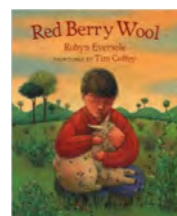
If You Lived at the Time of the Civil War by Kay Moore

This book tells you what it was like to live at the time of the Civil War from 1861 to 1865.



Red Berry Wool by Robyn Eversole

A story about a lamb who wants to have a bright red sweater just like the shepherd boy who tends him. Lalo sets out to wash, spin, and dye his own wool.



Websites:

Clothesline Sleuth Lesson and Resources
From Utah Agriculture in the Classroom
<http://goo.gl/RBso1S>

Sheep Ag Mag
From American Farm Bureau Foundation for Agricultural Education
<http://goo.gl/IGHszM>

Video:

Year in a Flock
By Saratoga County 4-H Members
<http://goo.gl/aeyslW>

About New York Agriculture in the Classroom



Mission: To foster an awareness, understanding, and appreciation of how we produce food, fiber, natural resources by engaging educators and students with agriculture and food systems.

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Agricultural Literacy Week

New York Agriculture in the Classroom 2015 Educator Resource Guide



Dear Educator,

Thank you for welcoming agricultural literacy volunteers into your classroom. One of the best ways to celebrate the beauty and bounty of New York agriculture is to participate in Agricultural Literacy Week. You are joining thousands of teachers and tens of thousands of students in exploring New York's food and fiber system, an industry that you and your students interact with every day.

Weaving the Rainbow is a beautiful book that illustrates the story of fiber production - from lambing, to shearing, to a colorful and soft final product. Students will have the opportunity to engage with the volunteer readers about the importance of wool, mohair, and alpaca fleece in our state, and then engage in a hands-on activity they won't soon forget. With over 240,000 pounds of fiber produced in our state each year – your students may be touching agriculture daily without even knowing it.

One out of every five students in your classroom will enter into an agricultural related field, as 20 percent of the American workforce is employed in a form of agriculture. New York Agriculture in the Classroom strives to create the next generation of agriculturally literate students and informed consumers, and we do that through assisting teachers in implementing agricultural concepts into their curriculum.

We would like to thank our teachers who find the time and opportunities for our volunteers to come into their classrooms, the 1,200 volunteers who read to more than 50,000 students, and the County Coordinators who make the event possible in every community. Also deserving of our thanks is Farm Credit's Northeast AgEnhancement Grant for generously funding a portion of this program.

Sincerely,
Katie Bigness
Coordinator, New York Agriculture in the Classroom

 **Farm Credit**
Northeast AgEnhancement

2015 Agriculture in the Classroom Opportunities

- Earn up to 6 hours of professional development credit by participating in a *Food, Land and People* educator training. The *Food, Land and People* curriculum is aligned to NYS and the Common Core Learning Standards, and includes 55 lessons developed and tested by thousands of educators.
- NEW! Apply to attend regional Agricultural Literacy Academies – two-day trainings include curriculum, farmer panels, classroom resources, farm tours, and more. Sponsored through a one-time Farm to School grant courtesy of the USDA, teachers will have the opportunity to connect with agriculture in their regions in order to enhance their curriculum. Visit agclassroom.org/ny to learn more.
- The National Agriculture in the Classroom Conference will be in Louisville, Kentucky from June 16 to June 19, 2015. Meet peer teachers from across the country and engage in professional development in increasing agricultural literacy in your curriculum.



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Pinterest.com/NYAITC

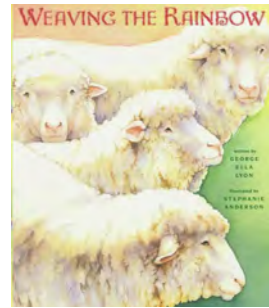


Mark Your Calendar

Next year's Agricultural Literacy Week will be held *March 21-25, 2016*. Join us again for great volunteers, and strong connections to our food and fiber systems in your classroom.



Weaving the Rainbow Lesson Plan



Grade Level: K-3

Common Core 2nd Grade ELA Standards Met:

RL.2.1, RI.2.3, RI.2.4, RI.2.7, RI.2.8, SL.2.1, SL.2.1a, SL.2.1b, SL.2.2, SL.2.3, L.2.4, L.2.4a, L.2.5, L.2.5a, L.2.6

Time: 30 minutes

Materials: *Weaving the Rainbow* book, sandwich bags of raw fleece, white roving, and yarn, 3 sandwich bags of colored roving, towels (or paper plates or paper towels), bowls, warm water, dish soap

Extensions: For related lessons and extensions, please visit www.agclassroom.org/ny

Felting Marbles

Helpful Hints and Program Preparation:

- Read the book and the activity plan several times before you work with your classes, and test run the activity with a piece of the color roving.
- If the classroom doesn't have a water faucet, or if you are unsure if they will have one, bring a thermos with warm water for the activity so that you do not have to leave the classroom in the middle of the presentation.
- You may want to use tabs or sticky notes on the pages of the book where you have specific talking points, or where you would like to ask the students questions.
- Don't forget to give this Educator Resource Guide to the teacher before you leave!

Introduction (5 minutes):

1. Gather the students together in the reading area of the classroom.
2. Introduce yourself; explain your relationship to agriculture, and why it is important to you.
3. As an engagement strategy, ask the students: How do you think the sheep will become a rainbow?
4. Explain the plan for your time together: We will be exploring fiber and all of the animals that grow the materials for our clothes, bedding, furniture, carpets, and more.

Reading Aloud (10 minutes):

Read *Weaving the Rainbow* by George Ella Lyon to the class. Add further explanation to the illustrations throughout the story.

Lesson and Activity (15 minutes):

Background:

Wool production has an important history in New York State - the fabric has contributed to keeping soldiers warm and cool during changing seasons, it has been used to make a variety of durable garments as our population moved westward, and was a major commodity in trade. Wool may have been essential in our past, but it is also an imperative industry in the present day. Over 240,000 pounds of wool was produced in 2013 and can still be found in products we use everyday such as bedding, carpets, tennis balls, baseballs, toothbrushes, and fishing line. While sheep may be the first animal we think about that produces the fiber we use, they are not the only animals in New York that grow fleece for our use. Alpacas, goats, and rabbits are also fiber-producing animals and contribute greatly to the industry. Each of these animals creates durable, soft, warm products that are a cornerstone to agricultural production in our state.

Objectives:

1. Name and sequence the three stages of fiber from the sheep to yarn.
2. Identify at least two animals found in New York State that produce fiber.
3. Use roving, water, and dish soap to agitate roving to create a felted marble.



Lesson Plan & Extension Activities

Lesson Procedure:

1. Ask students what products they believe come from sheep, discuss briefly. Explain the importance of fiber in our history and in present day. (See Background on page 2.)
2. Using the sandwich bags of fleece, roving, and yarn provided for the classrooms explain the steps in the process from sheep to finished product. Allow the students to touch each of the materials and explain the characteristics of each.
 - Note how the bag of **raw, washed fleece** may have pieces of feed, bedding or natural materials in it from the pasture or barn. Most of it is removed during the washing process.
 - The **roving** shows the next step in the process where all of the single strands of fiber are carded to go in the same direction.
 - **Yarn** is made from the roving through spinning and it creates a strong material. When put together with additional pieces (plied) you have a sturdy material for creating many products.
3. Ask the students to name animals that produce fiber. Discuss their answers, and be sure to mention sheep, alpacas, goats, and rabbits. Find pictures and more information of each animal on our website to share.

Activity Procedure:

1. Felting is a technique that makes wool dense, warm, and strong. The wool becomes strong when it is agitated, which is done by using water, soap, and tangling the fibers together. Once the roving is felted, it can never be undone.
2. Put a towel or paper plate down at student workstations (ask the teacher to set this up while you're reading, or alternatively, line the students up at the classroom faucet for the activity). Set a few bowls of warm water with a squirt of dish soap in them at the workstations.
3. Give each student a section of the colored roving (approximately 3 grams). Explain that when it is their turn, they will ball up the roving in their hand and dunk it in the warm water with the soap. Squeeze the roving a few times to work up a lather.
4. Roll the roving between both hands, like you are rolling a ball of play dough. Be gentle at first, but then you roll more vigorously once the ball is firmer. Dunk the ball in the warm soapy water occasionally. This process should take about 5 minutes.
5. Leave the felted marbles to air dry. Explain that they can be taken home, or the teacher's can make garland to hang in the classroom with the marbles by putting embroidery floss through them with a needle. With the same technique, you can also make a necklace for the students.

Program Conclusion:

- Ask the students to name the three stages of fiber from sheep to yarn, and to name at least two fiber-producing animals.
- Present the book, this Educator Resource Guide, the bags of fleece, roving, and yarn to the teacher as a donation to their classroom or school library.



Common Core Domain Connections

Kindergarten

1. Nursery Rhymes & Fables
2. The Five Senses
3. Farms
4. Columbus & the Pilgrims
5. Colonial Towns & Townspeople
6. Taking Care of the Earth

1st Grade

1. Early World Civilizations
2. Early American Civilizations
3. Animals and Habitats
4. A New Nation
5. Frontier Explorers

2nd Grade

1. Ancient Greek Civilizations
2. War of 1812
3. Civil War
4. Westward Expansion
5. Fighting for a Cause

For additional information about connections to the Common Core, extension activities on spinning and weaving, and videos visit: www.agclassroom.org/ny