



# Adolescent Program

Guides: Alex Pape, Melissa Pavick, and Caren Ross.

2024 Fall Edition



Dear MSGH community,

Below our adolescents share with you a slice of life at the farm this fall. From the topics they've chosen to write about, you'll see what's important to them. You'll also see why Maria Montessori recommended a prepared farm environment for optimal adolescent development. Clearly, adolescents are uplifted and inspired by the beauty and adventure of the farm, the real responsibilities, the practical life experiences, and the studies that emerge from purposeful work. The variety of activity and the vibrant colors, rich flavors, textures, and sounds of autumn are what make life and learning lasting, rich, and meaningful.



# Student Articles

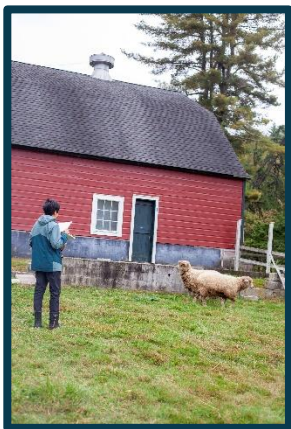
## Science by Eli



Last month we learned about light, and how different molecule sizes can reflect different wavelengths. We made dye that would reflect light to help us understand how color works. We studied how molecules bond to learn how dyes can bond to wool.

Right now in science, we are learning about compost, including the relation between heat and compost. Our goal is to trap more of the heat in the compost so that the organic matter decomposes quickly. We are also learning about enzymes and how those can be used to compost what would have taken months, in less than a day. Two classmates and I are working on a project to capture methane from compost. We put a lot of uncomposted food scraps in a container and sealed it. Once the oxygen leaves the container, a certain bacteria in the compost will start producing methane. We will be able to harvest it and use it for cooking or hopefully to power an engine.

In all, science is very hands-on and allows learning to be captivating.



## Sheep, Wool, and Dyeing by Lucas

We have two sheep on our farm, Mary and Dolly. The September topic of our first Work and Study project was sheep, wool, and dyeing. In chemistry lessons with Caren, we learned about atomic bonding because that is why the dye stays attached to the fiber. We learned about the history of dyeing and many kinds of ancient dyes in humanities class with Melissa. We found plants on our farm and made dyes to dye wool with Pape. We also did sketches of Mary and Dolly in art class with Priscilla.

Individually or in small groups, we did research on a topic we chose related to sheep, wool, and dyeing. The topic I chose was the history of domestication of sheep. I learned about how wild

mouflons, the ancestors of sheep, were domesticated, bred for wool, and spread around the world.

- Wild Mouflons were first domesticated in Mesopotamia around 10,000 BC for meat, milk, and skin.
- People discovered the use of wool from mouflons and started breeding them for wool around 6,000 BC.
- Neolithic settlers started to bring sheep to Europe, Northern Africa, and other parts of Asia.
- The mouflons became sheep that produced more wool around 3,000 BC and people started making clothes with the wool.
- Sheep were first brought to North America by Christopher Columbus in 1493. More sheep were brought to the Americas with settlers from Europe.
- Sheep were brought to Australia in the late 18th century.

We presented our research to the rest of the class on October 1 and ended the Work/Study project.

---

## **The Atheneum** by Aiden

One of my favorite field trips we have had this year was visiting the Wadsworth Atheneum in Hartford, Connecticut. The Wadsworth is the oldest public art museum in the United States. Before we went to the Atheneum, we went to the State House Square food court. Once we arrived at the museum, we were put into groups and participated in a scavenger hunt. The Wadsworth offers a wide selection of art to observe. In the Atheneum, we expressed ourselves by observing the paintings and objects and writing down a paragraph of what we noticed and what we wondered. After completing our scavenger hunt, all the groups met up at the cafe and enjoyed a wide selection of snacks and drinks. The class was allowed to buy some gadgets and collectibles at the gift shop. Once we finished socializing we got on the bus and were driven back to the main campus. The Wadsworth Atheneum was one of the most inspiring places I've visited in the past school year.



## Honey Extraction by Sandrine

The bee boxes have been on Millstream Farm for years, and many adolescents have been able to experience a honey extraction during their time as students here. Honey is now one of our student-run business's best-selling products. This year our bees produced close to one hundred pounds of honey! This year was a big honey year; the warming temperatures have been great for bees everywhere. It's so special the first time you get to open a bee box and see the small world of bees. You can barely see the honeycomb because there are so many bees. We are so lucky to have bees, and so lucky to go to school here.



## Una Película en Español por Ruth

The afternoon at Millstream Farm is split up into four classes, one of which is Spanish, taught by Caren. The different groups are all immersing themselves in Spanish and growing their vocabulary and understanding of grammar. One way the students practice their Spanish is by making student films.

These Spanish-language films allow the students to use their vocabulary and grammar skills creatively.

Last year, every Spanish group created films that we showed at our end-of-year coffee house. Now my group is creating a sequel to last year's film. With our ever-growing vocabulary, our films become more intricate and complex. Spanish language is an important skill and the students of Millstream Farm look forward to the class every day.

### Spanish Translation:

La tarde en la granja de Millstream se divide en cuatro clases, una de las cuales es español, con la maestra Caren. Los grupos están inmersos en español y están aumentando su vocabulario y entendimiento de la gramática. Una manera en que los estudiantes practican su español es haciendo películas. Estas películas dan la oportunidad de usar vocabulario y habilidades gramaticales creativamente.

El año pasado, cada grupo de español creó una película que miramos juntos. Ahora mi grupo está creando una segunda parte de la película del año pasado. Con nuestro creciente vocabulario,

nuestras películas son siempre más intrincadas y complejas. El español es muy importante y nos gustan mucho las lecciones cada día.

---



### **Literature** by Jasper

In Literature and Language Arts we have recently finished reading *The Hitchhiker's Guide to the Galaxy* and are now beginning work on essays about the book covering several unique topics. As an example: I've been writing my essay about how the author, Douglas Adams, fleshes out his universe. I found *The Hitchhiker's Guide to the Galaxy* to be a very interesting book. I think that it has a very distinctive voice for its narrator: an omniscient narrator.

Our guide for Literature, Pape, has been guiding us about how to write in MLA style, more specifically, quoting properly in MLA. This work will be helpful not only in writing these essays but also in high school and beyond when we'll need to know how to write in MLA formatting.

---

### **Community Lunch** by Tess

Community lunch takes place on Wednesdays with our entire adolescent community. A group of people make food while everyone else is in classes/workshops. The food is made with the things that we grow on the farm. Sometimes we must buy some of the other ingredients. We sit together, give a toast, and then eat lunch. The food is chosen by the group who makes it. It usually includes rice and a sauce. Some things that the groups have made are pesto pasta, pancakes, and my personal favorite, pizza. I have liked all the food choices. Sometimes it is hard to eat food that I am not used to, but I have enjoyed my experiences. I enjoy community lunch because we all eat together.





## Goat Cheese by Ryan

We have five goats at our farm: an old goat (Daisy), two female goats (Fern and Rosebud), and two of Fern's baby goats (Bubba and Kiwi). Fern and Rosebud produce milk. Fern needs to feed her kids, so we only milk Rosebud for goat milk. After we milk, we filter the milk, put it in a jar, and refrigerate it.

We do different chores in the morning when we arrive at school. We switch what we do every week. I have made goat cheese in

the morning for three weeks since the school year started. We make goat cheese with our goat milk about once every two days, sometimes everyday. It takes two to three days to make goat cheese.

How to make goat cheese:

### Day 1:

1. Heat one gallon of goat milk to 72°C to kill bad bacterias.
2. Cool it down to 30°C.
3. Add culture (bacteria that turns milk into cheese) to the milk, wait for two minutes.
4. Stir in the culture.
5. Cover it with a cloth.

### Day 2:

1. In the morning, the goat milk turns into goat cheese. The cheese is like yogurt in the middle, and it has whey around it.
2. Dump the whey.
3. Sterilize a cheese cloth and a ladle.
4. Put the cloth onto a metal strainer.
5. Scoop the goat cheese onto the cloth.
6. Wrap up the cloth and hang it up to drip.
7. In the afternoon, take the goat cheese down.
8. Add and mix in the salt.
9. Roll it into logs.

10. Wrap it with plastic wrap.

11. Refrigerate it.

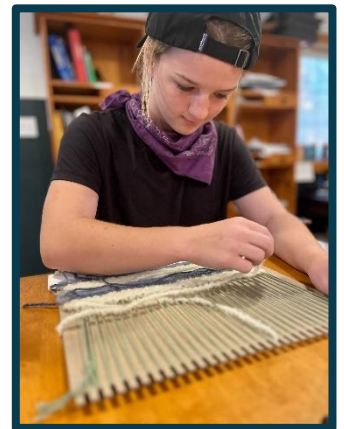
12. If you don't have time, you can refrigerate it first, and roll it the next day.

We prepare goat cheese and crackers for snack every day in the morning. We put spices, honey or other things on the goat cheese. I enjoy eating goat cheese with crackers. It tastes good with the flavoring. I especially like it with honey, because it is sweet.

---

## **Weaving** by Maya

Amy, a local weaver, visited the farm for several afternoons during our Work and Study project related to wool. She taught us to make a warp and a weft. The warp is the vertical string across the board. The weft is the string weaved between the warp. We wove the yarn through the warp over and over again, some of us creating beautiful abstract patterns. The yarn we wove is dyed wool from our own sheep.



We now have lovely works of art that we can sell. Thank you, Amy!

---



## **Production and Exchange** by Adit

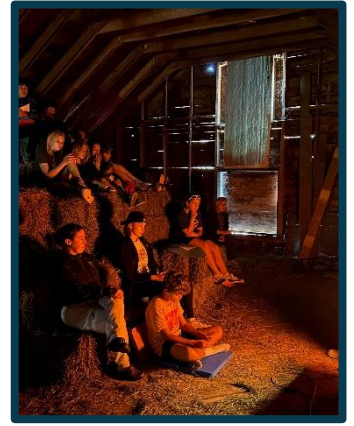
During Production and Exchange (the work related to our student-run business), we are designing an updated composting system for our food scraps and the manure we have on our farm. We are also fixing up the garden and harvesting our crops for preservation before the arrival of winter. The crops that we harvest are for community lunches and some great food for us to eat.

For this work, Pape is our guide and shows us how to do work in the garden, such as cleaning up, planting seeds, and more. I love gardening and the idea of composting because it saves soil and reuses our leftovers, making soil for the garden. This is why I love Production and Exchange. I hope you like it too!

---

## Scary Stories at Millstream Farm by Tyler

Scary things happen at almost the same time as Halloween at Millstream Farm every year, such as the time last year when we found the disembodied head of one of our chickens, the time our last sheep were attacked by a dog or coyote at night, or the mysterious disappearance of our black cat, Clover, or the dead baby garter snakes laying in a perfect line along the road this week. But these anomalies aren't the only creepy or unnerving events that take place here. This fall during Creative Writing, we have been working on scary stories. Each student writes a spooky story that they work on for about two months, and on Halloween, we have a tradition of arriving at school in Halloween costumes and going up into the hayloft to read our stories aloud. This usually is done with the writer holding a hard copy of the story that they wrote, which they read on the floorboards of the cobwebbed hayloft. The other kids listen on top of the mountainous pile of hay bales that are stored up there for the whole summer, and occasionally taken down to refill food for the goats and sheep. But the best part of sitting twenty feet high in creepy haystacks is that our other cat (Clover's son) Ollie joins us and lets us pet him.



## Barn Life by Olive

In the barn, there are lots of different animals that we take care of. We have five goats who get fed and milked, around twenty chickens that get their food and their eggs collected, and the two sheep get haltered to walk outside. With the goat's milk, we make goat cheese and soap. We sell and also bake with the eggs, and we use the wool from the sheep to make our own yarn to dye and weave with. Every spring and fall we shear our sheep to get their wool, which is a fun experience to have. We have a barn cat that we feed and take care of who catches unwanted rodents. It's always a fun time in the barn with the animals.

## Cemetery by Piper

Last Wednesday we walked to the Nepaug Cemetery to explore the history of the deceased. We were given a scavenger hunt and walked around the cemetery in search of different gravestones. As we were searching, we began to trail away from our papers and found ourselves wanting to



learn the history of the different people and families. One of the reasons I love cemeteries is because of the stories they tell. It is amazing to me that someone who died 100 years ago and wasn't famous can still be remembered today. As I was walking through the cemetery, looking at the small stones placed next to the larger ones labeled "Mother" and "Father," I felt a pit in my stomach knowing how short the child's life was and how much pain their parents felt when their child died. There was one particular family that stuck with me. It was a family of five where the father and his three kids all died in the same week while their mother lived for 50 more years. I was reading the dates, I couldn't even imagine the pain she felt and it gave me a sort of appreciation for being above ground.



---

## **Compost** by Howard

Last week, we kicked off our new unit, Compost! I learned about fertilization and how too much fertilizer is a problem. We are coming up with ideas about a new compost structure to build better compost. We are still ordering materials for the structure, and we are learning about compost in science and humanities lessons. In science, we learned about the chemistry, physics, and biology of compost piles. We studied heat transfer, how the decomposition of organic matter works, and the stages of composting. We want the microorganisms to make the compost very hot to kill diseases and weed seeds, and we only want carbohydrates in our compost. The microorganisms break down carbohydrates such as vegetables, but not meat, dairy, and foods that were cooked in oil. In humanities lessons, we learned how people figured out how to compost thousands of years ago. At that time, compost was already a process in nature and people found out that it was a very good idea to enrich the soil, so they started to compost using human and animal waste.

---

## Fishing by Dillon

Here at Millstream, during Open Time, a few kids and I go down to the pond to fish. The pond is connected to Beckwith Brook, which comes from the small mountain next to us, naturally supplying it with native and wild brook trout. The wild brook trout have a reddish-orange belly, a gray body, and red spots. When we catch a brook trout, we need to get our hands wet before holding the fish as they have a protective gel coat that can be easily damaged.



The lower pond has fathead minnows. The average size of a fathead minnow is 4 inches; the largest one caught was eight inches. The minnows will bite all different types of bait, from fake worms to real worms. With fake worms, I have caught two fish in one cast. Adit caught the biggest fish so far with real worms. We try to go to the pond every day. I enjoy fishing here because I don't have to drive anywhere for it and I can do it every school day.

---



## Gym by Harrison

With the new year comes a new gym teacher. Sam is a spry young man with a good attitude. We have gym class at Browns Corner, the New Hartford town recreation fields and basketball courts, which is just down the road within walking distance of the farm. We have done some intense activities. The first couple weeks we played kickball and soccer with a beach ball, but lately we have been focusing on Ultimate Frisbee. This past week we played an intense game of Capture the Flag. The

game ended 1-0. I approve of Sam!

---

## Taming Our Sheep by Beckett

When we got new lambs last year and saw them for the first time, they were very scared and did not want to interact with us. Their names are Dolly and Mary. Until recently, we couldn't manage them because they kept running away from us. Over time, we were able to tame the sheep, and they started to gain our trust. Fast forward about one year and the sheep are still a little skittish, but they trust us a lot and they are calmer when shearing. The reason



why is because each day we halter train them to gain our trust. Haltering allows us to attach a leash to the sheep and let them walk with us. We reward them with grain to encourage them to wear the halter and leash, and to trust us. Our friend Peter comes twice a year to shear sheep. Hopefully, Mary and Dolly will be more manageable this year and can be sheared more easily. Pete taught us last month how to spin wool into yarn in various ways. He gave us each a stick with a CD at the bottom for homemade drop spindles, so we could spin wool into yarn. He also taught us how to use a spinning wheel, which turns loose wool into yarn and is a faster way than the previous method.

---



### **Art** by Molly

We have art classes twice a week with our art teacher, Priscilla. This week, we went to our garden and worked on a one-point perspective piece. We used the garden gate as an example, capturing the gate's one-point perspective. After that, Priscilla came and helped us look from a different angle. She came around and gave us tips on how to get the look on paper like you are going into the paper. Then, we walked down to the pond, sat down, and tried to get the reflection of all of the trees. We then worked on the glossy water reflection. Lastly, we had a few minutes to touch up our drawings.

What I liked the most about that class was being able to be outside with our friends and how she helped us get the look we wanted. I also liked that we were able to choose what we wanted to draw and use our own technique. Priscilla's feedback was very helpful.

---

### **Chickens** by Madi

Chickens are intelligent and interesting creatures. There is a mix of breeds on the farm. There are classic Leghorns, Plymouth Rocks, and Ameraucanas. The Ameraucanas are also known as Easter Eggers because of the colorful eggs they lay. If you're looking to get chickens yourself, I personally recommend Plymouth Rocks. If raised and bonded to you at a young age, Plymouth Rocks grow up to be calm and sweet chickens that make perfect companions. If you don't bond with the chickens, they may grow up to be skittish and distrustful of you. Breeds that may require a bit more care are Frizzle



variants and Silkie chickens. Silkie chickens' feathers aren't even feathers, or though it seems. These chickens' feathers are like fur and feel like silk. Their feathers won't protect them from the rain. The Silkies are also known to have a soft nature, and other chickens may bully them. My own Silkie chicken lives in our house since the main flock won't accept her for that reason. Frizzle variants are also not waterproof. But they're pretty darn adorable! Chickens make great companions, and I definitely recommend them as pets, though they do require a lot of care, but it's worth it in the end. And you get free eggs!

---

## Gardening by Arda

I can't even remember all the food that we harvested because there has been so much – from the nice-smelling, vibrant-colored flowers to the tasty red cherry tomatoes. In the mornings, we go out in groups and we start to harvest the vegetables and herbs. Sometimes we've harvested the hot red peppers and jalapeños. We used the red peppers to make our Hot Pepper Jelly. We also use the harvest to make our community lunches, which are always fun. We have picked, washed, and weighed potatoes, carrots, cabbages, and beets, which we're busily preserving to sell or eat.





