



Adolescent Program

Guides: Jack McArdle, Alex Pape and Caren Ross.

2022 Spring Edition

At the farm, we put the richness of human life right smack at the center of education. As you read and enjoy the news below from our adolescents, you'll sense the richness and variety of activity on the farm, and you'll understand why Maria Montessori envisioned this special environment for the adolescent age group. The place is alive, dynamic, alluring, and purposeful. It is full of wonder and surprises. An adolescent community of belongingness forms around the work on the farm, which the adolescents manage together. They learn a great deal not just in the classroom but by living and working in a place with diverse ecosystems, flora and fauna, and human-built structures. They extract implicit and explicit lessons of life and learning, not only the traditional academic disciplines but the deeper learning that evolves through hands-on experiences that synergize all the senses and unify a human personality and its multifaceted intelligence. Maria Montessori wrote:

"It is self-evident that the possession of and contact with real things bring with them, above all, a real quantity of knowledge. The inspiration engendered by it revitalizes the intelligence that was interested and wished to know. From all these things new intellectual interests arise... Instruction becomes a living thing. Instead of being illustrated it is brought to life." (*From Childhood to Adolescence*, p. 18-19).

In other words, there's no substitute for real-life learning through all the senses and across the seasons. Enjoy the news!

Caren Ross

Adolescent Teacher

Student Articles

End of Day Chore Schedule:

Mudroom Sweep: Levey

Disinfect Tables: Fred & Liam

Disinfect Kitchen: Logan

Ice: Rose

Disinfect Bathroom faucets and knobs: Grace

Classroom Floor: Kosi

Laundry: Colleen

Care of Eggs: Arthur

Fill animal's water buckets and check gates: Tallash

Disinfect Utility: Colleen

Disinfect Bathrooms: Selena

Disinfect Mudroom: Myles

Supervisor: Arthur

Poetry by Kosi Eysi

In Literature class, around December, we had poetry instead of reading and analyzing a book. While we did the poetry course, we



wrote many different types of poems. We wrote a name poem, which was a poem about the meaning of our name, a color poem, which was a poem about colors, a nature poem, which was a poem about nature, a photo poem, which was a poem about a photo, and an "absurd poem," which was a poem that is supposed to be unusual and strange. Almost every day, while we had poetry, we would also do a five minute free-write about our surroundings, our thoughts, and any memories that might be unlocked by those thoughts and observations. *The Hayloft* will include some of our best poetry. I enjoyed writing the color poem, and I might include it in *The Hayloft*.

Yellow

The canary sun rises in the morning,
Casting ivory reflections on the clouds,
As the maize school buses drive to a far, far place.
On my lap I hold a naples sweatshirt,
Draping shadows over the aureolin
Pansy-petal necklace that lies next to me.
The icterine light drizzles lightly on the tips of grass
As lion patches follow the footsteps I take into
The vast field of gold flowers where I rest,
Looking at the bright, canary sun.



Math Class by Arthur Tittmann

Every day, except Friday, we have Math class taught by Jack. Four groups rotate through the main math class and the independent math class in twenty-five minute periods. Math is based mainly around algebra; however, every Tuesday and Thursday three classmates and I participate

in a geometry course. We started with "Euclid's Elements: Book One," which we finished at the beginning of December and now, we have moved on to a more traditional high school textbook. I particularly enjoy the geometry proofs that we do, especially the finale of "Euclid's Elements," when he proved the Pythagorean Theorem. As well as Euclid, we also learned the proof of the Pythagorean Theorem by ex-president James A. Garfield.



Spanish at the Farm by Rose Bourdeaux

En mi grupo de Español, hemos estado viendo una película llamada *El laberinto del fauno*. Se mezcla historia con fantasía muy bien capturando la Guerra Civil Española y criaturas de cuentos de hada como hadas, faunos, y monstruos. Hemos tenido que avanzar mucho para poder ver una película completamente en español, aprendiendo cosas como el tiempo condicional, y incluso un modo diferente de conjugaciones verbales, el subjuntivo. Para la tarea, escribimos reseñas, opiniones, y reflexiones sobre la película completamente en español, luego los discutimos, completamente en español. Durante la clase, estamos

animando a hablar solamente en español, que agrega un otro nivel de inmersión que es único. Aunque cada grupo está en un nivel diferente en el idioma, Caren siempre se encuentra con todos dónde están, recompensando el fin del capítulo con la oportunidad de hacer churros y compartirlos con el resto de la clase.

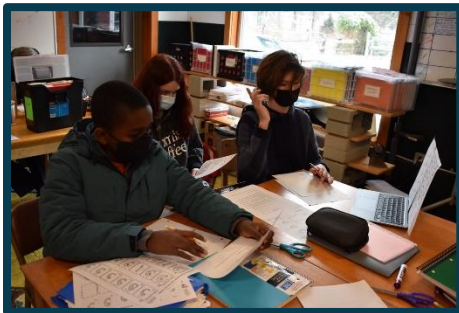
English Translation:

In my Spanish group, we've been watching a movie called *El laberinto del fauno*. It mixes history with fantasy very well by capturing the Spanish Civil War and fairytale creatures such as fairies, fauns, and monsters. We've come a long way to get advanced enough to watch a movie completely in Spanish, learning things such as the conditional tense, and even a different mood of verb conjugations, the subjunctive. For our homework, we write reviews, opinions, and reflections on the movie completely in Spanish, then discuss them in class, completely in Spanish. During class, we are encouraged to speak only in Spanish, which adds another level of immersion that is unique. Even though each group is at a different developmental level in the language, Caren always meets

everyone where they are, rewarding us at the end of a chapter in the textbook with an opportunity to make churros and share them with the rest of the class.

The Great Outdoors! by Abbie Hawkins

Lately, it has been cold and snowing. We tested the pond to skate, and spent time outside on the ice. Some of us played hockey, figure skated, or spent time in the barn with the animals or playing paddle tennis. The great outdoors is beautiful here at Millstream Farm. Recently some people have been finding animal tracks in the snow, such as turkeys, deer, and even bobcat tracks! The winds are harsh on certain days but the animals are happy in the barn where they can frolic around in the snow or take a nice nap inside the barn. Thank you to people for shoveling pathways so we could get around easier without slipping or falling. Congrats to our new flock of chickens, for seeing snow for the first time! Though they were timid at first, the next day they were flapping around in the beautiful snow.



Science by Colleen Mathias

In Science this semester, we have been studying embryology, evolution, and genetics related to the pregnancies of our goats. Earlier this week, Dr. Shawn London came in and performed an ultrasound on our goats to see if we could find any signs of an embryo. (See Levey London's newsletter for more details) Along with that, our 8th and 9th-year students have been working together to create models of DNA replication with paperclips, and have also looked at the single-nucleotide polymorphisms and mutations in a dog that would cause Patella Luxation which is when the patella, the bone above the knee, is out of place. Our 7th-year students have been studying Gregor Mendel and his contributions to the study of genetics. They're also creating Punnett Squares to predict the genotypes and phenotypes of the baby goats that will be born in the spring.

Ultrasound Technology and Human Anatomy

by Levey London

On Monday, January 24, 2022, my father, Shawn London, who is emergency Medicine Doctor and Director of the Residency Program at Hartford Hospital, came to the farm to teach us about ultrasound technology and human anatomy. He demonstrated the practical applications and usefulness of ultrasound technology by using a small ultrasound device connected to his laptop to determine whether or not our goats, Rosebud and Violet, were pregnant. He showed us how it worked and how to use it, and let us try it out ourselves.



After we checked the goats for pregnancy, he showed us different parts of human anatomy by using the ultrasound on himself and let us look at the bones and ligaments in our hands. In addition to this, he taught us about other medical equipment and their relation to ultrasound technology, such as MRI machines and CAT scans. After we finished learning about our bodies and medical technologies, we had an online pop quiz to finish it. Then he gifted us with 3-D printed models of the heart, brain, and spine to help encourage us to learn more about our bodies on our own.

Personally, I found it really interesting and genuinely fun, especially when we looked at our own bones and ligaments. The fact that there was an incredible image depicting what we were learning about was also fascinating, and helped me to visualize and think more about the topic.



Art Class by Fred Faulkner

Each week we have Art class with Priscilla. This is a very fun activity that I look forward to every Wednesday. We have a weekly assignment. For example, right now we are working on illuminated letters. Every time we are finished with an art class, we have the opportunity to hand in our art to *The Hayloft*.

We have been given the opportunity to do many artistic things that we have never come across before. We've combined animals and created our own species, drawn icebergs with pastels, and even made naturalistic Christmas decorations for our families and loved ones.

Our art teacher, Priscilla, is an amazing artist and person. She has taught us many things, whether it's shading, coloring or any other type of technique.

Micro-Economy by Grace Grano

This year at Millstream, we have continued our winter activities of knitting and felting. In Micro-Economy, students have been working on projects such as felting holiday ornaments and small figures, and making dryer balls. We have also just recently started knitting various scarves, squares, and baby sweaters.



Our primary source of wool for yarn and roving comes directly from our sheep, Casper and Snoopy, who are sheared twice a year. However, they have recently only been sheared enough to keep clean, so that their wool continues to grow for the Connecticut Blanket Project, a project of the Connecticut Sheep Breeders Association since 1893. We will be participating in the CTBP by contributing our sheep's wool in July. The original Constitution and By-Laws from 1893 state that "The purpose of the [Connecticut Blanket Project] shall be to promote and encourage the keeping of sheep upon the farms of Connecticut, to improve breeds of sheep, and to aid in securing legislation favorable to the sheep industry and agriculture." We are so excited to be a part of this long-standing association! We will also be expecting to have woven blankets or scarves from our sheep's wool for sale in our Micro-Economy business.



Ice Skating

by Selena Figueroa

This winter, we were able to skate on the pond down by the paddle tennis courts. We were welcomed to bring our own skates or borrow skates from Caren and friends. First, we had to drill a hole to measure the ice to ensure it was safe to skate on. Next, during our Micro-E periods, we all shoveled the snow off the ice. Some students were completely new to skating and had lots of support from their peers and the teachers. Other students skated more confidently, and even played hockey. When the ice was lightly coated with snow, we were able to track Billie's paw prints around the perimeter, and some people even found a bobcat's paw prints!



Farm Animals by Tallash Sarfo-Mensah

We've had so much fun during the school year taking care of our various animals at the farm! During November we all got on the bus with Señora Nancy and went to a farm that had an Oberhasli buck named Max that we bred to Rosebud, and Caren took Violet to breed with a Boer buck. The chicks are also much bigger than before and are looking more and more like adult chickens every day! They will start laying their first eggs any day now. We also wanted to shear our sheep so we could make another blanket but unfortunately, their coats weren't long enough to shear and send off to the Connecticut Blanket Project yet, so we could only shave their heads and behinds. However, Pete, our sheep shearer, will come back to shear them fully in February. Winter has been getting colder and colder so we've been making sure our animals are kept nice and warm during these chilly months by giving them heating buckets to keep their water from freezing and giving them extra bedding and straw. Levey's dad also came in and gave Rosebud and Violet an ultrasound and now we know for sure that Violet is pregnant. A vet came and confirmed that Rosebud is going to have twins at the end of April. Meanwhile, our honeybees have just started to leave the hive on "cleansing flights" after a long, cold winter of huddling inside the hive. The bees cluster around the queen in the hive all winter so they can keep her alive, at 95 degrees Fahrenheit.

Dairy Planning by Myles Low

I have a grand idea for a goat dairy at Millstream Farm. I have been looking at the care and maintenance and later looking at equipment including a pasteurizer, grain bins, and feed buckets. I've also looked at the state regulations for dairying, including washable walls and floors, as well as separate areas for milking and processing. I've been wondering how many goats we would need and how much space they would need inside and outside. I've measured how big the stalls could be.



My dream is to be able to sell milk and cheese to the community and I would also like to keep the farm going even when I'm not there. I believe that with a lot of work and dedication we could make this dream come true.

Over the course of my experience, I have been able to gain a lot of information about the different breeds of goats and what their purposes are. The goats that we have now are some of the best goats out there for dairy farming. Goats need a lot of care and maintenance to produce the best quality milk. If your goats get even a small parasite or a disease, it could lead to one goat or all of them getting sick. When you get kids, baby goats, it is very important to give them full attention and the best food because the baby goats are the future of dairy farming.

Famous Speeches by Liam McWhite

In our Humanities class recently, we have been discussing famous speeches from all throughout history and from all over the world. By studying these famous speeches, we can learn how the way we talk has evolved, what things were like at that time, and what people from that time would react to.



Not just any speech can last the test of time, so for Pericles Funeral Oration to be remembered since 431 BCE is remarkable. During the Peloponnesian War many people died and the current ruler of Athens at the time, Pericles, decided to make a speech to honor the warriors who gave their lives.

“If we look to the laws, they afford equal justice to all in their private differences; if no social standing, advancement in public life falls to reputation for capacity, class considerations not being allowed to interfere with merit; nor again does poverty bar the way, if a man is able to serve the state, he is not hindered by the obscurity of his condition.”

This sounds very similar to the desires of modern day America.

Another famous speech that we studied was the Mark Antony speech from the *Julius Caesar* play by Shakespeare. While the speech was not written by Mark Antony, it captures the emotion of the time and demonstrates how the public went from praising Brutus to hating him. “When that the poor have cried, Caesar hath wept: Ambition should be made of sterner stuff: Yet Brutus says he was ambitious; And Brutus is an honorable man.” Mark Anthony used his persuasive skills to get the crowds to sympathize with the dead Julius Caesar.

Other speeches we have studied include several Martin Luther King speeches, the Gettysburg Address, A Tribute to Dogs, Trial of Socrates, and the Ten Commandments. I look forward to the JFK

and Confucius speeches.

Goat Milk-Ricotta Ravioli Recipe by Logan Hebert

Sometimes in class we utilize the surplus of goat milk by either making soap or tasty treats in our Micro Economy. One time, we made a ravioli from our own goat's milk ricotta, eggs, and herbs. Everyone thoroughly enjoyed it, and we are happy to share our recipe with you.



Pasta dough

- 2 cups flour
- 3 eggs
- ½ tbsp olive oil
- ½ tsp Salt

Ricotta cheese

- 1 gallon whole milk
- ¼ cup vinegar
- 3 Tablespoons butter, melted
- ½ teaspoon baking soda

Filling

- Goat's Milk Ricotta Cheese
- 1 egg
- Chives
- Salt and pepper to taste



Goat Milk Ricotta:

Heat the milk to 195° (make sure not to boil). Slowly stir in the vinegar, watching for clear separation of the whey. If the whey is still milky then increase the heat to 205°. Take a slotted spoon and gently ladle the curds into a colander lined with cheesecloth. Drain for one minute, then place the curds into a bowl. Add the butter and baking soda and mix well. Store in a covered container in the refrigerator for up to one week. YIELD: About two pounds

Pasta Dough:

On a clean work surface, pile flour and then make a well in the center, like a volcano. Crack eggs into the center with salt and olive oil. Whisk gently, adding more and more flour as you go. Once the dough has a shaggy texture, use your hands to start kneading it until it is smooth. Let rest as you prepare the filling.

Filling:

Combine ricotta, chives, salt and pepper to taste. Once you like the taste, add an egg and mix well.

Ravioli:

Roll dough out with a pasta roller or rolling pin until you can start to see your hand through the dough. Fold sheet of pasta in half to make crease and then unfold. In the lower half of the sheet, start adding small clumps of ricotta filling, with about an inch between each. Wet your finger and trace a square around the filling, then fold the top half of dough over the bottom. Press around the filling so that the side seal, cut the dough into ravioli, and press the side with a fork. Boil in salted water for 4 minutes, and serve with butter and garlic or a sauce of your choice. Enjoy!

