



Nightingale Notes

March/April 2019

April

- 8-12 Falcon Explore Week
- 11 Owl Farm Day
- 15-22 **No School—Spring Break**
- 22 **No School—Staff in Service Day**
- 23 Classes Resume
- 30 Chickadee/Falcon Farm Day

May

- 2 Owl Farm Day
- 3 **Mid Quarter Reports Due**
- 7 Chickadee/Falcon Farm Day
- 9 Owl Farm Day
- 14 Chickadee/Falcon Farm Day
- 16 Owl Farm Day
- 18 **NM Spring Fling**
- 21 Chickadee/Falcon Farm Day
- 23 Owl Farm Day
- 24 Ohio Caverns—Some Eagles
- 27 **No School—Memorial Day**
- 27-31 Falcon Field Study—Michigan

NM Staff—Lifelong Learners, Innovators and Entrepreneurs!

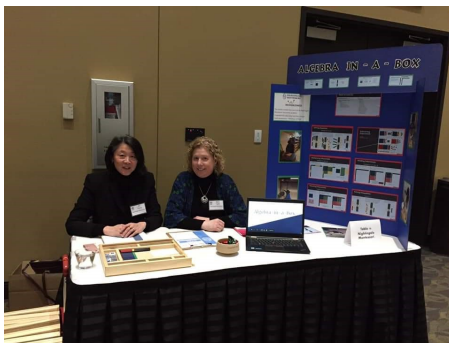


NM Staff traveled to Washington DC for the **Annual (sold out) American Montessori Society Conference** during our March professional development days. Wow! There were so many amazing sessions and so few of us! We divided according to our interests and classes and learned so much! A

highlight each night was sharing all of the exciting new information we learned. We saw old friends and met many new friends. We lived in the Montessori world for a few days and all was “just right.” Exciting work from **Montessori Gym** has come to the **Chickadees, Owls and Falcons** and the **Eagle leader, Haley and Wing leader, Becky** shopped for many exciting materials for their classrooms!

Algebra-in-a Box—A Nightingale Montessori Original Work

Montessori mom and math teacher, **Bin Huang**, developed the **Algebra-in-a-Box** from her inspirational Montessori lessons at **NM!** Our **Wing** microbusiness builds the boxes and a 3D printer makes many of the pieces. We sold many units at the **Cincinnati Montessori Conference**, a few at the na-



tional **AMS Conference** and are looking forward to presenting to Montessori middle school and high school teachers all over the world at the **CMStep (Cincinnati Montessori Secondary Teacher Education Program)** this summer.



NM Staff spent a Saturday in Cincinnati attending the **Cincinnati Montessori Society Conference**. Speakers, workshops and shopping the many Montessori vendors inspired many new elements coming soon to our classrooms!

Taking the Steps for Conscious Stewardship

The value of ecology and environmental education extends beyond the need for understanding scientific principles. Learning to value the natural world requires children to be out in it and it requires adults to take action to protect and improve the green spaces in our cities and countryside. When children interact within the environment with plants, soils, animals and atmosphere they become open to environmental education. They can engage in a process of exploring environmental issues, strategic problem solving and take action to improve the environment (NEEP, 1990) Working with students of all ages to illuminate the interactions between organisms within an ecosystem is the core of ecological education. Through studying those interactions and connections we can become aware of the interconnectivity of all things. That awareness can enlighten students to the fact that their choices matter and that how they spend their time and money has an impact on the world around them.

One example of interactions that students can observe easily is on the stem of a peony plant. Students are stunned by the large, fragrant, even succulent flowers: **human-plant interaction**. Closer observation reveals numerous working ants traveling to and fro on stem and leaf: **human-animal interaction**. Amazingly, ants can be seen surrounding colonies of aphids and collecting their honey dew: **animal-animal interaction**. Students are stunned to see the ants are not hurting the aphids, in fact, when a predatory lady beetle tries to eat an aphid, the ants defend them. The lady beetle is a beneficial insect, eating plant sap-sucking insects, protecting the plant: **animal-plant interaction**. The Lady Beetle will lay eggs on the underside of the peony leaves, which will hatch in 3-5 days: **animal-plant interaction**. The larva will eat aphids until they pupate into the adult form. The nutrition the beetle gets from the aphids comes from the peony sap they sucked from the leaves. The peony gets nutrition from the conversion of sunlight to glucose during photosynthesis: **plant-environment interaction**. The minerals and water used in this process come from the soil up through the plant's vascular system. The health of the plant depends on the lack of pollution in the soil and water. Pollution comes from humans: **human-environment interaction**.

This complex web of interactions is one example of an endless supply of models and systems that can be studied to learn about our world. But if students do not get outside to make that first observation about the beauty of a flower, then the entire sequence of lessons is lost. Moving forward, our school gardens will be a catalyst for environmental education and will take students down these first steps to conscious stewardship of our earth.



What a month of generosity! We really want to thank everyone for all of their contributions and we apologize if we left someone off of our list. We truly do appreciate all that you do!

Cara Raffensperger, mom of Owl, Iris and Eagle, Malcolm, converted our paper registration forms to a fillable PDF for online use!

Amber Evans, mom of Chickadee, Braxtyn, donated a case of shaving cream for our practical life area!

Yasmin and Daniel Dye, parents of Chickadee, Nathalie and Eagle, Eliza donated their time and sweat for a deep cleaning of the Eagle room.

Mia Grimes Frantz, NM alumna and mom of Hummingbird, Rosie and Chickadee, Marie donated dot matrix computer paper, a much coveted resource for story writing in the Eagles.

After a swift response to our call for tissues, cases arrived from **Jenny and Aaron Guest, parents of Hummingbirds, Charlie and Annie, Eagle, Vivian and Owl, Lucy** and from **Heather and Chad Crawford, parents of Chickadees, Ayvah and Devin and Eagle, Gavin**.

Jim and April Wasinger, parents of Falcon, Emma donated many great books that the avid reader, Emma, has outgrown, and many great office supplies!

Eagles, Olivia McWhorter, Wyatt Schindler and Ladainian Rogers, participated in **Wittenberg University's Kidpreneurship** program on April 6th at **Mother Stewart's Farmer Market**. They learned about business and what it means to give back to their community by selling toys and other valuables. **Olivia donated 20% of her Kidpreneurship profits, \$8, Ladainian donated 25%, \$4 and Wyatt donated 50%, \$13.50**

Happenings and Updates at NM North Campus!



Bo and Maria Wagner, parents of Wing, Beck, closed down a restaurant and donated items for our new kitchen and cafeteria at the North Campus! We acquired beautiful tables, glass pitchers, a handwashing sink, an ice machine, a food prep table, and industrial fridge, a panini press, a freezer, glasses and mugs, cafeteria tables and much more!



Wing students help! They worked together and picked up the donated items with many trips of loading and unloading!



We are please to announce our new **Nightingale Montessori Parent's Association Leader, Alumna, Kelly Rodgriguez.** Kelly and her husband Gus returned to the area last year and this is the second year at NM for, **Owl, Magnolia, Eagle, Thor, Chickadee, Brooks and Hummingbird, Resnor** to attend. Kelly is excited to help us coordinate opportunities to come together in community and participate in social and fundraising activities. Look for more information to come! If you are interested in joining Kelly and helping with these efforts, please contact her at kelly.a.rodriquez@gmail.com

Soon to be completed!

NM is working with **Netdemics**, and utilizing the **Federal erate Program** this year to completely upgrade and install internet access to the entire 2525 building! **Netdemics** started their project in August to get the Wing classrooms ready for this school year. The rest of the building will be finished by July 1st! We do need to remove ceiling boards from the main hallway and demolish 1 wall to get ready for **Netdemics** to finish their project. If you are interested in volunteering to help with the part of the project please let Nancy know at nschwab@nightingaleschool.org

Current Progress!

NM is working with **Plug Smart** to secure a \$40,000 security grant from The Bureau of Workman's Compensation for the 2525 campus and to obtain **PACE financing (property assessed clean energy financing)** as a means of financing energy efficiency upgrades and renewable energy installations on the property. Stay tuned!

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WAYS TO HELP kids cope with BIG LIFE CHANGES

Big Life Journal

1. GIVE THEM TIME TO PREPARE

When preparation is an option, give your child plenty of advance warning that a major change is coming. This allows them **time to process** and begin to accept the change.



2. LISTEN TO THEIR CONCERNS

Take time to address your child's questions and concerns. Help them **work through the emotions** that they're feeling.

If your child struggles to name what he is feeling, help him label the emotion (e.g., anxious, sad, nervous, worried, or scared).



3. READ BOOKS ABOUT BIG LIFE CHANGES

There are plenty of children's books written to **help kids cope** with major life changes.

Check out the Top 85 Growth Mindset Books for Children and Adults in our Growth Mindset Printables Kit on biglifejournal.com



4. KEEP ROUTINES THE SAME

Give your child as much **consistency and stability** as possible. Bedtimes and mealtimes in particular should remain consistent. Structure feels safe for children, so provide as much of it as possible to restore a **sense of safety**.



5. PROVIDE CONNECTION AND PLAY

Remain consistent is your child's **connection with you**. Make sure your child knows that no matter what else changes, you aren't going anywhere, and neither is the bond you have with your child.



6. GIVE THEM CHOICES AND ASK FOR HELP

During a big life change, children feel that they have no control over their lives. Give some **sense of agency** by allowing your child to make small choices:

- What color does he want to paint his bedroom at the other parent's home?
- What should you cook for the first meal in the new house?
- What outfit does he want to wear for his first day at a new school?



7. TALK ABOUT OTHER CHANGES

Talk about things they **successfully coped with** in the past. They might include:

- Starting school
- Getting a new pet
- Joining the soccer team
- Going to first grade



Changes in the Hummingbirds

March has been a month of changes in the **Hummingbirds**! **Cooper Griffin** and **Leo Powell** were promoted to the **Chickadees**. The **Hummingbirds** also welcomed two new students. **Felix Wade**, brother of **Chickadee Kennedy Wade**, and **Sidney "Rosie" Frantz** joined us this month. **Rosie** is the daughter of **NM alumni Mia Grimes Frantz** and sister of **Chickadee** (and former **Hummingbird**) **Marie Frantz**. It is the greatest compliment when the parent of a **NM** student chooses to enroll a younger sibling!



Leilani mixes fruit salad for the class.



Nez rinses raspberries for fruit salad.

Changes in the Hummingbirds Early Math Skills-Matching and Sorting

"Children display a universal love of mathematics, which is par excellence, the science of precision order, and intelligence." - **Maria Montessori**

Dr. Montessori believed that all humans are born with mathematical minds. Over a century ago, she recognized that if mathematical learning isn't part of the child's early experience, this part of the mind will go undeveloped. This lack of development will make it much more difficult for the child to learn math skills later in life. It is very important to stimulate and develop the "mathematical mind" of the child as early as possible.

Since children have a natural desire to create order in a world that seems largely out of their control, they are intrinsically drawn to activities involving matching and sorting. These types of work help the **Hummingbirds** understand that things are alike and different, as well as that things can belong and be organized into certain groups. Matching and sorting work is important for numerical concepts, and it will help them with grouping numbers and sets when they're older. This type of thinking starts our **Hummingbirds** on the path of applying logical thinking to objects, mathematical concepts, and everyday life.



Alivia sorts buttons by color.



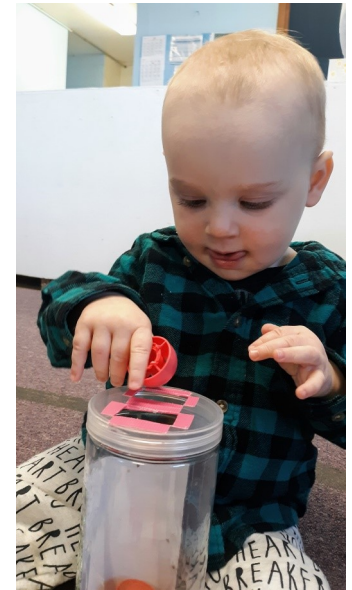
Annie compares quantity to shapes.



Emily works with the coin box.



Nathan strings beads.



Felix fits caps into the proper opening.



Evelyn explores object permanence.



Paxton works with the cylindrical ladder.



Charlie experiments with magnetism.



Callie works with pom poms.



Rosie explores object permanence.



Skye transfers liquid using a sponge.



Reznor shovels sand.



Hazel investigates the lock box.

Chickadee Farm Report

They have all decided to bring boots, hats and gloves next time, and of course the weather will get warmer through the season.



Crossing the creek.

We started with feeding and milking goats. They enjoyed cuddling the babies while others took turns milking. One big thing I realized they learned today was prepositions, starting with when I would pinch the teat off at the top and tell them to squeeze below my fingers. This keeps them from accidentally squeezing milk back into the udder which can cause mastitis, but it was also a good time to learn what "below" means. Prepositions are hard. Marcel was really interested in the blood still draining from the new moms, so we had a little education about how babies are born. Next, we went to feed chickens, Romeo poured the grain, Nathalie gave them the grit.



Braxtyn perches in a tree.

We did a tour of the farm so we could see where things were. We saw the bee hive, the compost, the garden, and then

went down to the creek. We saw deer and coyote tracks on the way down. It didn't look too high, so we decided to cross and check out the other side. Some of us got our feet wet even with a lot of help. We got a little cold so we ran around the cornfield to warm up. Then we checked out the impressive swinging vine. Coming back, some were upset by the time we crossed the stream again, but we went in by the fire, changed to dry pants and socks and got warm again and all was well.

We had lunch on the deck which was nice and sunny -then made some goat cheese. River, Devyn, Nathalie, Ja'Miyah, and Anna were particularly interested in this. Ja'Miyah knew just how to use a slotted spoon to drain the whey off the curds. She said her mom makes cheese at home.



Making goat cheese- Ja'Miyah shows them how to do it!

By then it was warm so we let the goats out of the barn into the pasture, and both the human and goat kids chased each other around. That was fun for many who dared to "run with the goats"!

We finished the day with a meeting, we talked about our favorite part of the day (some people actually said it was the creek, so cold or not, they enjoyed the existential challenge), tasted our cheese, admired the egg Ja'Miyah bravely plucked from under a chicken, and read a story about a baby goat.

On the ride home, some slumped over their seatbelts and fell asleep. So many new experiences, so much fresh air, sunshine and "maximum effort" the fledgling farmers disembarked the little school bus on empty.

Welcome New Chickadee's

The **Chickadee** class is excited to welcome many new friends.



Hardly a new **Chickadee** but worthy of an introduction, **Kennedy Klang** joined our class in January!



Kennedy W, Jovie and Lucy read

Arlo Prince, joined our class in February and quickly became an active participant.



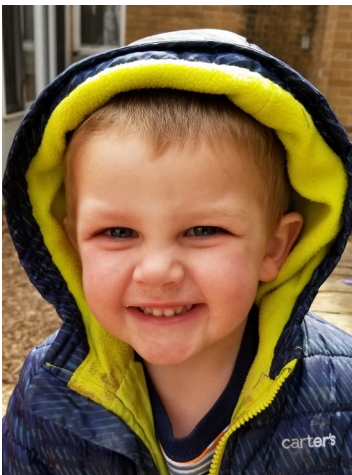
Sevyn maintains balance (using our new Montessori Gym work)



Cooper Griffin moved up from the **Hummingbirds** to join the **Chickadees**



Ayvah Crawford is the sibling of **Chickadee, Devin and Eagle, Gavin.**



Moving from the **Hummingbirds** to join the **Chickadees**, **Leo Powell**, is the sibling of **Chickadee, Lucy and Eagles, Rylee and Charley.**

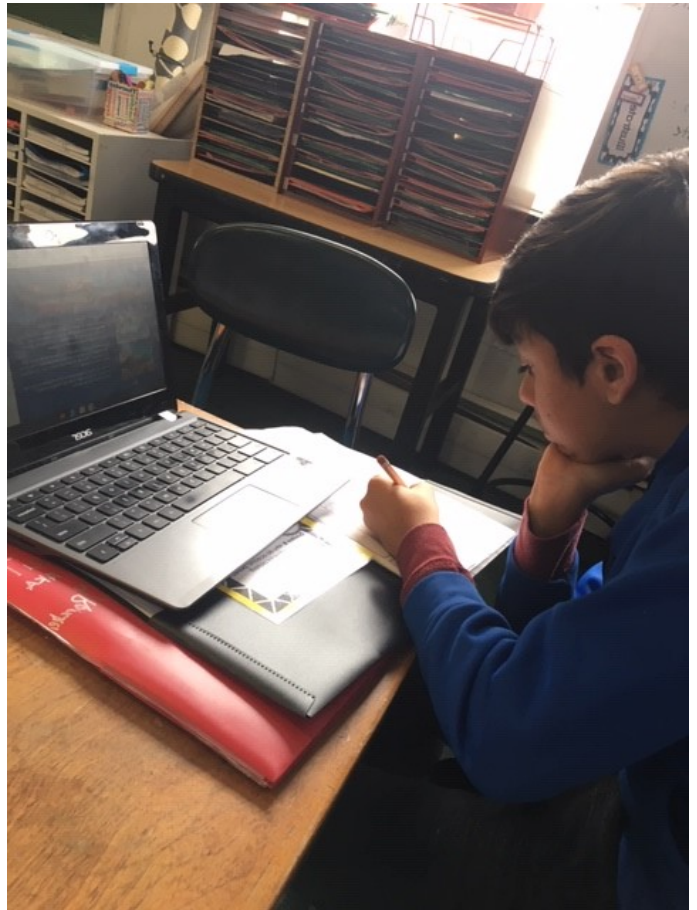


Braxtyn perforates Mexico for his N.A. map

Owl Science in March

The focus this month has been on Plate Tectonics and the interactions at the plate boundaries. Students had several opportunities to explore the different types of boundaries and the result produced from each interaction. This lesson is linked to how and why the plates move, why some move faster than others, and how mountains, volcanoes, rift valleys, and deep oceanic trenches are formed while destroying crust or creating new crust.

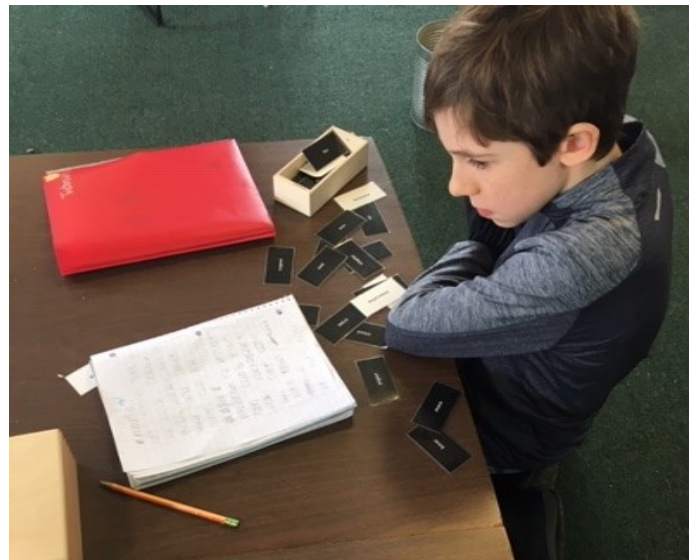
We read, watched a video, used an online interactive, illustrated, demonstrated, and accessed our knowledge for the three main types of plate boundaries. We learned about convergent boundaries, where the plates push together and different landforms are produced. The results depend on a similar or different crust density when a continental plate is colliding with another continental plate or with an oceanic plate instead. We discovered what happens when oceanic plates diverge and how new crust is formed. We also looked closely at transform boundaries, where plates slide past each other and cause earthquakes.



Joseph working on Plate Tectonics Interactive.



Lola and Lucy work on Rock Cycle Mat.



Tristan thinking about Word Study.

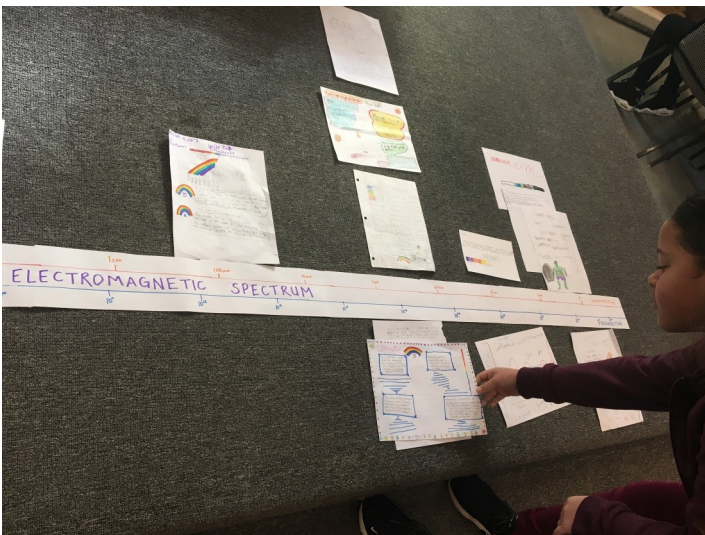
Thematic Learning: Energy

Thematic learning is what links cross-curricular education in secondary Montessori. Quarter three had an overarching theme of Energy. Students explored this concept through various physical tasks that used energy; swimming, ice skating, and working out. We also experimented with different forms of energy in science labs; electrical, sound, potential and kinetic. Students held a discussion about the career choices they might have and how they will choose to channel their personal energy.

First, we advise them to do what they love, to be true to themselves. But then we challenge them to say that any job they choose to do can be framed in a light of helping other people and making our world a better place. Other than the intrinsic value of making a better world, we discussed that their job will also convert their time and energy into money. Students filled out a 1040 tax return using a fake W2 and students gained some empathy for the adults in their lives. Over all, we want students to cultivate personal energy and then use it for good work and good fun.

The Electromagnetic Spectrum Research Timeline

Sanaa Johnson is evaluating the wavelength and frequency on a large electromagnetic (EM) spectrum model. Students created a fact sheet about one type of EM radiation including facts about the uses, dangers and the wavelength and frequency. They then fit their research onto the EM spectrum that stretched across the center of the Falcon room.



Value of Mid Quarter Reports

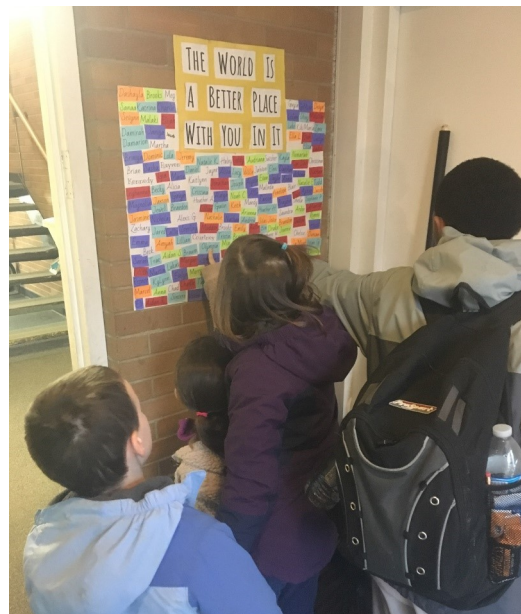
Knowing where you are provides perspective. Students can use the Mid Quarter Report as a marker point. They can look back at the previous weeks and evaluate how far they have come. They can also look forward to the weeks ahead to plan how they will finish the quarter. Taking the time to stop, reflect and strategize is important for students.

This report has communication goals. There is data about attendance, percent of work completed, and comments from the teaching guides. All of this is to communicate the current status of the student's learning. We use two structures of reports: The End of Quarter Report includes notes from the students about what their successes and struggles were. The Mid Quarter Report has comments from the teachers. Extending the line of communication between school and home is essential for students to know we are all working together.

The Mid Quarter Report provides data that is still in flux. Students can control their own outcomes by making choices at the time of the report. Montessori education values students learning to learn. The numerical values represent a piece of information and a tool to help us learn more about our learning journey. Our goal is to empower students through honest evaluation paired with reflection and revision.

Kindness Club

February was National Random Acts of Kindness Month. It was a perfect opportunity for Nightingale's first Kindness Club to present a school-wide act of kindness. The club spent several of their weekly meetings preparing a poster with the quote, "The World is a Better Place With You In It" and cut strips of paper with the names of all students and staff members. Our hope with this poster was that everyone in the school would feel especially included in our positive community. Many students have been spotted looking for their names and discussing the theme of this positive quote. Kindness Club is made up of Falcons, Emily, Sanaa, and GeMiah. We are open to hearing suggestions for future projects that would benefit a specific classroom, the whole school, or the greater Springfield community. Send ideas to HeatherHahn@nightingaleschool.org.



Our Earth Nursery



The conditions in the greenhouse are warming up fast. Days when it is 40-50 outside, it is in the 70s in the greenhouse. Students cleaned garden beds and even planted cold, hardy seeds under the protective cover.

There have been cabbage, onions and garlic growing inside all winter. Perennial plants are established inside the greenhouse. There are raspberries, strawberries and Monarda that are already green and growing.

We have a small goldfish pond used as thermal mass, to hold the daytime heat through the night in the winter. This little water feature did freeze over a couple times this year, but the fish have survived and since our late winter and early spring warmth, they are doing fine.

Our Earth Nursery, a joint micro-business, between **Wings** and **Falcons** anxiously awaits the breaking of winter buds to measure the survival rate of trees that were potted last Spring. New stock came the first week of April and our inventory will be expanding from now until the end of the school year.

Owls and **Eagles** worked at potting many plants last year and are scheduled to come back to the greenhouse to work with the **Wing Ecology** class and continue their efforts. The greenhouse has been a bright spot through out the long cold season! We want to thank our anonymous donors again for this amazing resource! In addition to continued winter greenhouse work, this donation has provided additional space for a dry workshop for **Wing Woodshop** micro-business, a warm place for Ecology learning and season extension for growing nutrient dense herbs and veggies for the kitchen. THANKS AGAIN!



Arrowhead Hunting

Clark County is rich in **Native American** history and evidence of early peoples living in the area is scattered across it. This evidence includes the **New Love Earthworks** that is a mysterious site and its purpose is unclear. Throughout the year, **Wing** students have expressed interest in searching for artifacts left behind by our early neighbors. We were able to secure permission for the students to search a recently plowed field about a half mile from the **New Love Earthworks**. During the **Wings'** recent Explore Week, the students were able to search the field for **Native American** artifacts. They displayed resilience as they slogged through mud for the chance to find a piece of history. While only a few pieces of possible arrowheads were found, the students found joy in the possibility of discovery. We are currently working on obtaining permission to take the students back to the area to visit the **New Love Earthworks**.



Stuck in the mud.