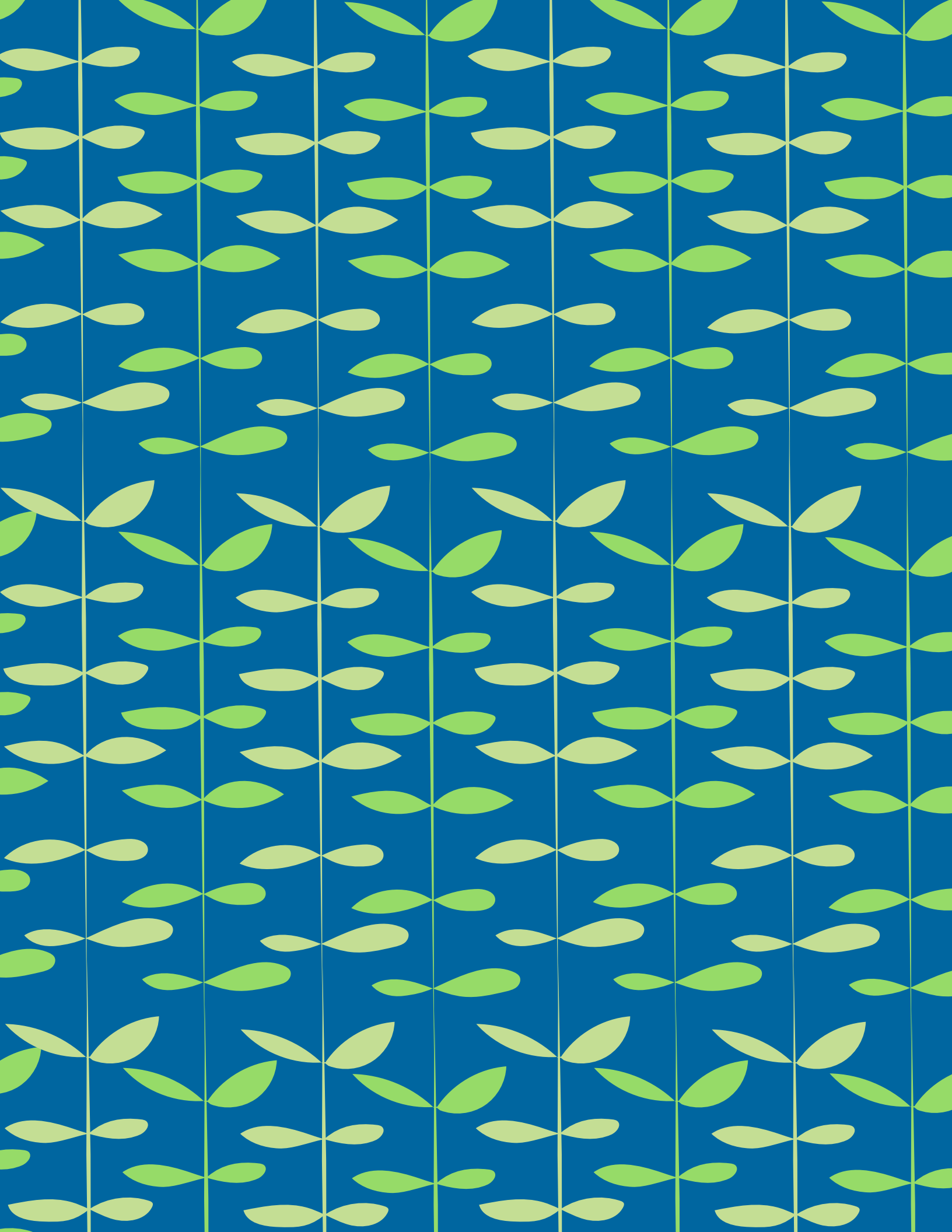




District of Columbia
Office of the State Superintendent of Education

ENVIRONMENTAL LITERACY LEADERSHIP CADRE SNAPSHOTS

September 2020



ABOUT THE ENVIRONMENTAL LITERACY LEADERSHIP CADRE

In March 2019, the Office of the State Superintendent of Education (OSSE) selected elementary teachers and educators from 10 schools across the District to participate in the third cohort of the Environmental Literacy Leadership Cadre program. Educators were responsible for the development and implementation of a plan to integrate environmental literacy programs at every grade level within their school. The cadre members were supported by mentors, who provided guidance, feedback, and technical assistance. The snapshots in this booklet describe the efforts of the cadre members, in addition to their future plans and lessons learned.

2019-21 ENVIRONMENTAL LITERACY LEADERSHIP CADRE MEMBERS:

- Amidon Bowen Elementary, Sherry Logan
- Latin American Bilingual Montessori Public Charter School, Danielle Hardoon
- Leckie Education Campus, Lynette Hicks-Washington
- Lee Montessori Public Charter School – Brookland, Meera Connors and Allison Denney
- Miner Elementary, Ashley Luttmer
- Murch Elementary, Terry Beasley* and Sophie Schwadron
- Thomson Elementary, Maya Baum
- Tubman Elementary, Diego Moreno
- Turner Elementary, Rickita Perry
- Whittier Elementary, Kerel Thompson

* Denotes participant in first year only

MENTORS:

- Arielle Conti, Department of Energy and Environment
- Rebecca Davis, Environmental Education Consultant
- Margi Fineran, FreshFarm
- Ariel Trahan, Anacostia Watershed Society

For questions about the Environmental Literacy Leadership Cadre, please contact Grace Manubay, environmental literacy coordinator at Grace.Manubay@dc.gov.



Amidon-Bowen Elementary School

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- Formally launched a school-wide environmental science program to support all grade levels, pre-K through grade 5. All students participated in project-based learning initiatives and instruction aligned with environmental literacy standards through partnerships with Casey Trees and the Audubon Naturalist Society that will prepare students to understand, analyze, and address real-world environmental challenges facing communities and the nation.
- Recommended the need to implement daily science instruction to support all grade-levels that will be rolled-out for 2020-21 school year!
- Developed and implemented project-based learning centers that empower students to learn about healthy lifestyles through nutrition and outdoor recreation to support greener living inside and outside the school building.
- In December 2019, students became pro-environmental activists and citizens! Upper grade-level students learned in real-time about the importance of climate change activism by studying international climate strikes and what it means to engage in climate change protests and events that were currently taking place in our Nation's Capital. Students watched short-docu-series and videos, read books, and studied social media messaging to get a real sense of today's environmental issues and concerns. Students coordinated and participated in a mock climate strike to support the international climate strike across the globe. The multidisciplinary project included writing speeches, creating posters, and drafting social media messaging to support the event.



ABOUT THE SCHOOL

Amidon-Bowen Elementary, located in the historic Southwest neighborhood, was created when two schools merged in 2009, Amidon Elementary and Anthony Bowen Elementary. Amidon-Bowen is an expanding community-based school that has strong family engagement partnerships through the Parent Teacher Organization, VIBE Parents Collective, and the Flamboyant Foundation. The school serves approximately 350 students in pre-K 3 through grade 5, and supports two inclusive classrooms. Amidon-Bowen's mission is embedded in the school's founding principles that highlight scholarship and excellence in academics and the arts grounded in values of heart-mind-voice, which are infused into every learning experience in the school. Individually and collectively, teachers are committed to developing students' intellectual inquiry, global citizenship, and environmental stewardship. Amidon-Bowen celebrates values of diversity, equity, and social-emotional learning and is fortunate to have a very involved PTO and guardian community that is always eager and ready to support core curriculum initiatives and projects.

“The environmental literacy program has sparked an interest in Amidon-Bowen students to be environmental citizens! While we learned some amazing things this year, what stood out the most for me was how students linked the 2019 United Nations Climate Summit to environmental science issues affecting their community. Students learned the importance of activism through Greta Thunberg and were excited to create a movement within their classrooms. They learned and understood they too can make a difference and share in the responsibility to make a huge impact.”

— S. Logan, Library Media Specialist, Amidon-Bowen Elementary School

ENVIRONMENTAL LITERACY PROGRAM

Amidon-Bowen's environmental literacy program is in its infancy stage. As teachers collaborate to increase science education school-wide, students will gain the necessary knowledge about all areas of environmental literacy by the time they leave to attend middle school. At the primary level, lesson plans will include sensory gardening experiences, "food to taste" mini-lessons, and read-aloud activities. For lower and upper elementary students, science instruction will include ecosystem lessons. All students will also participate in field trips, whether through in-person visits or virtual distance learning experiences. The school will be working toward implementation of a school-wide recycling program, to include composting components. To do this work effectively, Amidon-Bowen relies on environmental partners and funding to support required resources, materials, and field experiences. If students engage in environmental literacy activities beginning in pre-K and build upon that knowledge at each advancing grade, students will know the importance of being good stewards to our environment.



NEXT STEPS

Next year, all students will receive 45 minutes of daily science instruction. Specific grade-level projects and field trips that started this year will continue next year for each new grade level of students. The goal is to integrate environmental literacy into the required science program to augment student field experiences, project-based learning projects, grants, and community partners. Additionally, Amidon-Bowen will have a new playground space that emphasizes green space and new playground equipment that will be used as a gathering place for students and families outside of school hours. The expanded space will support the school garden and instruction inside and outdoors. Amidon-Bowen will continue to focus on implementing a school-wide recycling program in partnership with the Department of General Services, and will involve teachers and parent volunteers in the planning and coordination process. The goal is to have recycling bins in every classroom, including large recycling bins to support each floor for easy access, and signage posted on recycling receptacles to support students and school staff.

LESSON LEARNED

- Prior to launching the program, garner the support of a dedicated team, to include fellow teachers, the custodial staff, and principal. Without a team, the mission struggles to materialize and engage students school-wide.
- Create a quarterly newsletter for teachers and families. By highlighting student achievement, "ah-ha" moments, planning events, and program timelines, the newsletter will help keep the program momentum high while acknowledging people behind the scenes helping to reach the program's over-arching goals.
- Provide field experiences aligned to current events and the academic curriculum to create innovative learning experiences. Environmental literacy is an essential part of a well-rounded education and can be integrated across all subjects. The greater Washington, DC area offers an abundance of organizations and resources to support student learning and systems-thinking, including zoos, parks, forests, gardens, museums and nature centers. The combination of these formal and informal experiences lead students to be environmentally literate citizens.
- Be patient. Little wins add up and make a huge difference.
- Listen to the students and be sure to highlight their voices in all projects!



Latin American Montessori Bilingual Public Charter School

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- Instituted building-wide recycling initiative including cafeteria. Acquired bins and trained staff and students.
- Coordinated environmental resource experiences with several outside partners including: Audubon Naturalist Society, Casey Trees, and Anacostia Watershed Society.
- Had individual conversations with all teachers, staff and administrators in the building about the environmental initiatives and goals they have going forward.

ABOUT THE SCHOOL

Latin American Montessori Bilingual Public Charter School (LAMB PCS) opened its doors with just 57 students in 2003. Seventeen years later, LAMB serves a diverse student body of more than 450 students from pre-K 3 through grade 5. LAMB's mission is to create a self-directed learning environment through the Montessori curriculum in which children build the foundation and love of knowledge essential for becoming lifelong learners. LAMB uses an English-Spanish dual language immersion model, with the goal that students become fluent in both languages by fifth grade. Most of the school's staff is originally from Latin America or is descended from Latino immigrants, and this heritage is incorporated into the culture and teaching of the school.



“As a result of LAMB's involvement in the Environmental Literacy Leadership Cadre, I saw a coordinated school-wide effort around recycling for the first time this year. With better signage in the cafeteria and more extensive lessons for our elementary students, I noticed them thinking more carefully about their waste and helping each other understand what to recycle. I also observed how engaged the younger students were in in-person sessions led by Audubon Naturalist Society staff.”

— Michelle Mangan, LAMB Assistant Principal

ENVIRONMENTAL LITERACY PROGRAM

In order to ensure that children experience the sense of awe and wonder integral to the Montessori philosophy, Montessori advocates presenting children with stories that highlight the whole, amazing picture of Earth and cosmos. Creating opportunities for students to get outside and positively experience natural environments helps create an understanding and appreciation of the positive role each child will eventually assume in this interconnected web of life. Serving as positive role models through our own enthusiasm is also critical to creating a future generation of environmental stewards.

Tangible systems that support sustainability at LAMB (comprehensive recycling and composting, a garden, a green building and cleaning practices, rainwater harvesting, etc.) must be accompanied by hands-on environmental experiences for students such as: planting and tending a garden, nature walks, boat rides, reading and writing activities that connect to nature, observing the moon, cooking, adopting a tree, planting trees, collecting scientific data, and on. Students can grow small plants indoors from seeds, and other plants and animals in the classroom can provide students contact and familiarity with flora and fauna. Picture cards and scientific nomenclature material augmented with stories, poems, games, and songs become more complex as students advance in grade.

NEXT STEPS

There is a lot to be accomplished at LAMB next year, particularly as the school transitions to a brand new school building. The main initiatives the school would like to see take place at the new campus are: achieving Gold-level certification for LEED, a fully functioning kitchen with made-from-scratch breakfasts and lunches, establishing a school garden with an eventual garden coordinator and cooking/nutrition initiative, effective school-wide composting and recycling program with student ambassadors, an Environmental Team through the PTO and a Green team of students, school-wide energy and waste-reducing initiatives, a natural play space/trail, and of course continued environmental field trips and resource experiences.



LESSONS LEARNED

- Face-to-face conversations are much more effective in getting buy-in and responses than emails.
- Having two cadre members seems to really contribute to the recipe for success at a school.
- Schedule resource experiences, trainings, and field trips for ASAP because you never know when a pandemic will swoop in and cancel all your best-laid plans!





ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- Students in all grade levels were given the opportunity to engage in hands-on environmental science experiences.
- Pre-K 4 and grade 2 learned about recycling and composting, thanks to the Audubon Naturalist Society.
- Our grade 5 students had the pleasure of an overnight visit to Hard Bargain Farm, where they were educated about the natural resources in the Potomac River and Chesapeake Bay watershed.

ABOUT THE SCHOOL

Leckie Education Campus is located in Ward 8 and serves students in pre-K 3 through grade 8. At Leckie, teachers and staff cherish and maximize every minute of the school day by spending 120 minutes on literacy and at least 90 minutes or more for math. Students also receive Spanish, music, physical education, art, and library/media instruction. The school believes in both working hard and playing hard, which is why students have a wide variety of after-school offerings, including soccer, cheerleading, basketball, chess, Boys and Girls Scouts, as well as mentors from the Joint Base Anacostia – Bolling.

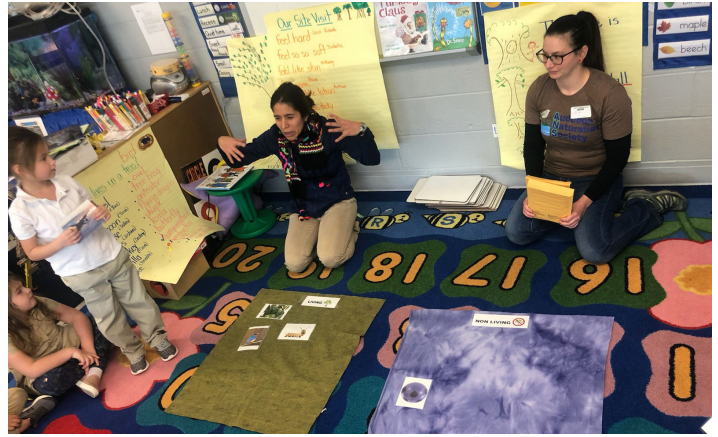


The team that presented the lessons to the pre-K students were well-versed in the subject matter. Most importantly, they were prepared to work with younger students because their language and presentation was designed to keep them engaged and excited about learning something new.”

— Keva Knight, pre-K 4 teacher, Leckie Education Campus

ENVIRONMENTAL LITERACY PROGRAM

The Environmental Literacy Program has been instrumental in engaging and educating all students at Leckie Education Campus. Through the program, students experienced the joy that comes with learning about the environment and how they can help keep it safe and clean. Both the school's outdoor classroom and garden are utilized by all grade levels. Students are able to help plant vegetation and care for the garden – and they get to taste what they planted and nurtured. Pre-K 4 students had the pleasure of learning how worms are good for the environment. They participated in a hands-on lesson, where they were able to hold and observe live worms. Second graders learned about composting and recycling through Audubon Naturalist Society's Garbology program. The fifth graders were extremely grateful for their overnight Meaningful Watershed Educational Experience at Hard Bargain Farm. During the visit, students and staff chaperones learned about the importance of recycling, natural resources, and watersheds through various hands-on activities and lessons.



NEXT STEPS

Next year, Leckie Education Campus would like to begin a school-wide recycling program. The goal is to start with paper recycling and then educate our students and staff about other recyclable items. The school will continue to work with the Audubon Naturalist Society to enlighten pupils about composting and other environmental friendly activities. Leckie Education Campus plans to engage grade 4 students with the Anacostia Watershed Society. This program includes a class visit where students will begin hands-on work as they learn about the program and future trips. They will also spend a day engaging in a hands-on restoration project in and around the Anacostia River. They will complete the program by enjoying a guided boat tour on the Anacostia River, where the students will observe the river and its wildlife. This program will be adapted to virtual engagement opportunities as needed.

LESSONS LEARNED

- Be able to fully explain the various programs available to the teachers, so that they may choose accordingly. This will ensure that they are more excited to participate in the program.
- Cooperation from the administration is imperative if the program is to be successful.
- Research what other local resources are available to help engage students in hands-on activities that will help them better understand the importance of the environment.



ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- Established a new composting program with the DC Department of Parks and Recreation, and began an active composting program in every classroom that included sorting out compostable food scraps and utilizing a new three-bin system.
- Partnered with the Audubon Naturalist Society to bring age-appropriate environmental science programs into our Primary and Lower Elementary classrooms. Students deepened their understanding of decomposition, recycling, and waste management. Staff members and custodians also received training to properly sort trash and recycling.
- Garden workday that involved diversifying native plantings in our rain garden, as well as the construction of three new raised beds.
- Conducted air quality tests with our Upper Elementary students through Casey Trees and Clean Air Partners' program: Cleaner Air, Tree by Tree.




ABOUT THE SCHOOL

Lee Montessori Public Charter School fosters a lifetime love of learning and cultivates independence among DC school children, using the student-centered Montessori Method, an evidence-based approach to closing the opportunity gap. The school provides a high-quality experience for a racially and socio-economically diverse community with the goal of empowering each child we serve to transform society. Lee Montessori is committed to an anti-bias, anti-racist framework that addresses social inequity through the lenses of race, class, immigration, gender, and LGBTQ identity.

Inside school classrooms, children as young as age 3 move around a beautiful room and work with hands-on, manipulative materials. In this manner, learning and well-being are improved as children gain a stronger sense of control over their lives. Lee Montessori is one of only five public Montessori schools in Washington, DC and the only public elementary school fully recognized in DC by the Association Montessori Internationale — USA. The school innovates by blending conventional educational practices with progressive Montessori principles that release a child's innate eagerness to learn.




 Audubon Naturalist Society's 'Worms at Work' unit was so great for our Primary classrooms – the students were so excited to handle and observe the worms, and it was awesome to track the process of decomposition within the classroom."

- Meera Connors, garden coordinator, Lee Montessori-Brookland

ENVIRONMENTAL LITERACY PROGRAM

At Lee Montessori, students are encouraged to question, explore, and engage with the natural environment around them. Teachers highlight the interconnectedness of both human and natural systems, and emphasize how individual behavior shifts can work toward larger solutions. Both inside the classroom and out in the garden, students are witnessing the ways in which their personal choices can transform their environment.

Lee's three-bin compost system set up by DC Parks and Recreation Community Compost Cooperative Network has helped reinforce the idea that individual actions can culminate in big results. Students, staff, and the school's surrounding Brookland community have worked together to divert some of the food waste that would have otherwise ended up in the trash. In doing so, students and staff have witnessed the transformation of everyone's lunch scraps through the process of decomposition. The final compost product went right back to our school garden, creating a nutrient rich environment for new plants to flourish.

This is just one example of how integrating sustainable practices into classroom routines has created a culture shift within the school. Lee will continue to incorporate hands-on activities and experiential learning opportunities into our curriculum and around the campus to emphasize the school's commitment to shaping young environmental stewards.

NEXT STEPS

The school's environmental literacy plan will continue to take advantage of the excellent learning opportunities granted to all Environmental Literacy Leadership Cadre members in the coming school year, but will also further expand connections between classroom-based and outdoor learning. This will include age-appropriate activities for Primary, Lower Elementary, and Upper Elementary students that deepen curriculum standards through schoolyard ecology. Lee is working toward creating a functional outdoor classroom environment that has a shade structure, in addition to an area for independent nature play to accompany our rain garden and raised beds. This space will serve as a tool for data collection, community engagement, and artistic expression.



LESSONS LEARNED

- Increased flexibility and accountability by having two Environmental Literacy Leadership Cadre representatives from the school.
- Take advantage of all opportunities presented by high-skilled partner organizations.
- Early and frequent communication with staff members around guest speakers, field trips, and activities will allow deeper in-class connection and engagement.



Miner Elementary School

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- Planned field trips for kindergarten and first-grade classes to the Washington Youth Garden (postponed due to COVID-19) to ensure environmental experiential learning experiences for every student.
- Implemented the recycling and papermaking program from the Audubon Naturalist Society for second-grade students.
- Developed a plan for school-wide education to support reducing waste through cafeteria composting and school-wide recycling initiatives.
- Continued family and staff support for outdoor spaces and experiences, including advocacy for green space during the playground redesign planning process, purchase of composting containers for hands-on learning, and maintenance of both gardens before and throughout school closure.

ABOUT THE SCHOOL

Myrtilla Miner Elementary School is nestled at the intersection of the Rosedale and Capitol Hill neighborhoods in Ward 6. It serves a historically black community, with increasing numbers of non-black students (primarily white). In the last few years, Miner has become a community school with a growing list of community and nonprofit partners providing services and resources for families and students. The Miner community is in the process of learning about and implementing restorative justice practices throughout the school. Miner has strong parent involvement school-wide, including a PTO, Equity Team, and Pre-K Parent Committee (which specifically supports our pre-K program of nine classes).



The programming offered will help students at all grade levels understand how they can have a positive impact on the environment, at school and at home!”

- Ashley Luttmner, pre-K teacher, Miner Elementary School

ENVIRONMENTAL LITERACY PROGRAM

Miner Elementary has a strong foundation for its environmental literacy program. The campus includes the large Peace Garden adjacent to the K-5 playgrounds and soccer field, a sensory garden in the pre-K playground, a new outdoor classroom and elements in each garden to support outdoor learning. The school hosted a Food Corps member in the 2019-20 school year who led garden and food-based lessons with K-5 students and supported the Garden Club in its second year of afterschool programming. Staff members have attended OSSE's Institute for Garden Based Teaching, and staff and parents participated in the RiverSmart Schools programming from 2017 to 2019 (which provided the Early Childhood Education sensory garden). In the last few years, Miner has implemented a cafeteria composting program with limited grade levels. In 2019-20, the school scheduled the following environmental literacy programming:

- Pre-K: Compost/worms with the Audubon Naturalist Society
- Grades K-1: Soil and Compost field trip at the Washington Youth Garden
- Grade 2: Recycling and papermaking with Audubon Naturalist Society (implemented winter/spring 2020)
- Grades 3-4: Boat trip with Anacostia Watershed Society
- Grade 5: Cleaner Air, Tree by Tree with Casey Trees and Clean Air Partners



NEXT STEPS

Due to the early closure of school buildings, most students' hands on environmental literacy experiences were cancelled. The Green Team (composed of interested staff members) had begun discussing how to begin recycling appropriate classroom waste in response to the overwhelming desire expressed throughout the school for such a program. The Green Team had also begun to investigate the challenges to implementing cafeteria composting schoolwide, but had not yet done a thorough analysis. Due to the coronavirus (COVID-19) public health emergency, it is likely that the experiential education, recycling, and composting efforts will be impacted for the 2020-2021 school year. The school looks forward to implementing the programs, whether in person or through distance learning, and finding ways to safely reduce the amount of trash we create at school.

LESSONS LEARNED

- Be flexible and creative in implementing new programs and procedures, especially in light of the pandemic.
- Embrace families as partners in environmental education, as some have been spending more time outdoors since schools closed.
- Capitalize on energy among staff for environmental programs, which can be organized into collective action!





Murch Elementary School

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- Partnered with Murch's custodial team to organize school-wide recycling training with Audubon Naturalist Society. The training removed some barriers to successful school-wide recycling, which included ordering proper materials for school-wide recycling and addressing staff confusion around school-wide recycling.
- Began the development of a student leader program for older students to support younger students in the proper disposal of their waste during lunch time.
- Ongoing progress communicating and sharing projects with the Green Scene, a group of parents that previously worked independently to take care of school grounds at Murch.
- Partnered with Casey Trees to provide programming with Murch's fifth grade, which led to a day of tree-planting along Reno Road and an ensuing unit of study.
- Ongoing environmental learning in pre-K 4, which included weekly nature walks and year-long trash studies as well as visits from Audubon Naturalist Society's Garbology program to teach about compost and decomposition.

ABOUT THE SCHOOL

Murch Elementary School serves more than 600 students from pre-K 4 to grade 5 in the Forest Hills neighborhood of Northwest (Ward 3). The school population draws largely from the surrounding neighborhood and the community congregates around the large indoor and outdoor spaces before and after school and on weekends. Murch was renovated for the 2018-19 school year and has an enormous new playground, soccer field, basketball courts, and surrounding green spaces. Parents are highly active in the school community and the Home School Association fundraises hundreds of thousands of dollars per year for school programming. The early childhood program at Murch is rooted in a Reggio-inspired philosophy and Murch's youngest students are very engaged in nature-based learning.

The Murch community includes several families in each grade who work for nearby embassies. Ten percent of Murch students are English learners and 9 percent receive special education services. The school population is 57 percent white, 15 percent black, 11 percent Asian, 11 percent Latinx, 5 percent multi-racial, and 1 percent Native American. While the school is consistently high-performing on both standardized test scores and Star Ratings, the community has recently started to organize with teachers and parents to address persistent achievement gaps with the goal of improving school experiences for non-white students, low-income students and for students with disabilities.



“The environmental learning and activism Casey Trees provided for our fifth graders was incredible for the entire grade level. The learning prior to the planting prepared and engaged them - and lent an excitement that lasted well beyond the immediate efforts of planting trees. By the time the planting came around, students were beyond ready to put their learning into action, even in rough weather. Students continued to ask about similar opportunities, eventually leading to creating a fifth grade Environmental Club.”

– Kelly Crabtree, grade 5 teacher, Murch Elementary

ENVIRONMENTAL LITERACY PROGRAM

Murch's Environmental Literacy Program (ELP) consists of nonprofit partnerships at several grade levels: pre-K and grade 2 with Audubon Naturalist Society, grade 4 with Anacostia Watershed Society, and grade 5 with Casey Trees and Clean Air Partners. Murch's ELP has also led to a school-family partnership with parent-led organization the Green Scene. The Green Scene's contributions to Murch's ELP have mainly been around school landscaping. Green Scene leader and alumni parent Alma Paty also supported Murch in applying for small grants which include, but are not limited to, supplies for an outdoor classroom for the 2020-21 school year. Perhaps the largest change for Murch during the 2019-20 school year was the prioritization of school-wide recycling, which came as a direct result of Murch's ELP.

NEXT STEPS

As the city remains in the midst of a global pandemic, the school continues to be flexible and creative when planning for the next school year. The school will need to adjust based on how much time students and staff can spend inside the school building safely. The following are tentative ideas:

- Creating a teacher-led Environmental Literacy team.
- Creating a functioning partnership with the parent-led Green Scene with clearly delineated responsibilities.
- Continuing efforts that we were unable to get to this year due to pandemic: finalizing a school recycling system, organizing our annual Mearth Day celebration; reducing end-of-school-year waste by engaging families and Home School Association to focus on reuse.



LESSONS LEARNED

- Partner with the custodial team from the start to support school programming that may change their day to day routines.
- Dream big, but focus on small, achievable tasks. Teachers' time and energy are pulled into a million different directions, we can be most successful if realistic goals are set.
- Prioritization should continue to be given to collaborate with a school's parent and family community, especially in regards to the use of outdoor spaces and environmental literacy-themed events.





Thomson Elementary School

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS:

- Received a grant/financial support to continue improving the school's rooftop garden and making it a usable teaching site for students.
- Through partnership with Casey Trees, Clean Air Partners, fifth-grade students were able to go out into the school community and learn about the health of the trees around their school.
- Created concrete inquiry experiences for students based on science standards and incorporating them into curriculum.

ABOUT THE SCHOOL

Thomson Elementary School is located in Mount Vernon Square and Chinatown. It is a pre-K through grade 5 school with just over 300 students. Thomson is a diverse school community, where almost half of the students speak English as a second language, primarily Spanish and Mandarin. Thomson became the first DCPS elementary school to become an International Baccalaureate (IB) Primary Years Program World School. As an IB school, Thomson focuses on creating lifelong learners through inquiry learning. The school commits to engaging the whole student through its partnerships with: Teaching for Change, DC Scores, Everybody Wins!, Girls on the Run, City Dance, and OSSE's Fresh Fruit and Vegetable Program. Thomson is making the school more "green" by improving its recycling, composting programs and the rooftop garden.



It was so wonderful seeing my students become so engaged in their community! They had so many questions about not just the trees in their neighborhood but also the history of trees in DC, the impact it had on the environment and how they could be part of the preservation of our trees”

- Nicole Braxton, grade 5 teacher, Thomson Elementary

ENVIRONMENTAL LITERACY PROGRAM

Thomson Elementary has created an Environmental Literacy Program by engaging with multiple programs. Thomson used the Next Generation Science Standards, DCPS Units of Study, and the IB PYP Curriculum to develop a plan that best supports the school. The Environmental Literacy Program at Thomson is divided into two parts (that intersect with each other). The first is the whole-school program focusing on programming for the school community. This includes a school-wide system for recycling and composting as well as improving our rooftop garden. The second part of the Environmental Literacy Program is at the individual grade levels. Each grade level engages with six inquiry units that ask students to take action at the end of the study. Some units are focused directly on environmental topics such as plant life cycles, water systems, habitats and natural resources. With those units, Thomson has been able to utilize its partnerships with outside organizations to give students more hands on experiences. Other units have the environmental literacy embedded into the action portion of the unit. In units such as Activism and Expressing Yourself, students choose action projects connected to environmental topics again through the support of the outside partnerships.

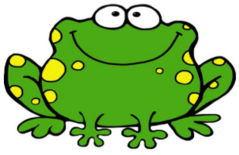


NEXT STEPS

Next school year, Thomson plans to continue its work with engaging students in environmental topics with its partners and field trip connections. All Thomson teachers will be trained next school year in recycling and composting to ensure everyone is on the same page. From there, Thomson staff will create a school-wide program for students to have ownership over the recycling and composting programs. The school is working with partners to get more funding to expand the rooftop garden and build a garden curriculum that can be implemented in each grade level. The school is also working with its partners to create more field-trip experiences for students that directly engage with the content being taught.

LESSONS LEARNED

- Field trips! Field trips are an amazing way to provide high engagement and meaningful experiences with the content being taught. Try to research as much as possible beforehand so that the field trip can be an extension of the content students are learning in the classroom.
- See what you have! Environmental literacy opportunities are all around us. Engage first with the environment and materials you have before looking to expand.
- There are plenty of resources and materials out there with little to no cost for educators. DC is filled with organizations that have programming or curriculum for students and will cover the costs!

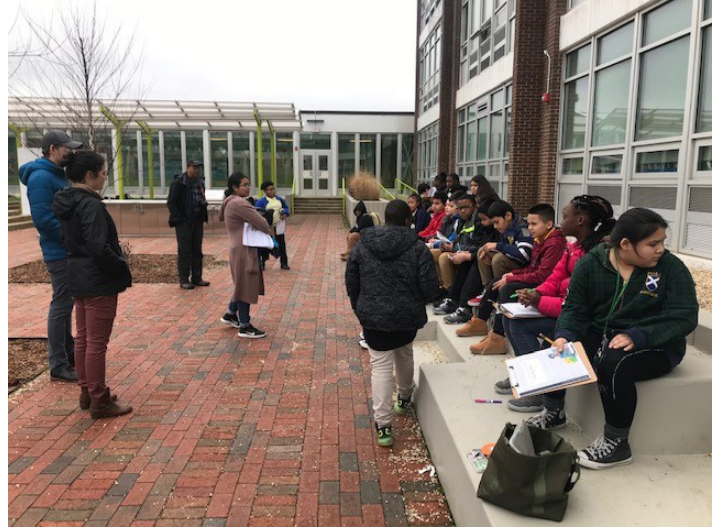


TUBMAN ELEMENTARY SCHOOL

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- During daily science lessons, students observed the differences and similarities of traditional agriculture and hydroponics. Students learned how hydroponic systems use less water and can be used to grow vegetables throughout the entire year.
- Students at Tubman Elementary started a campaign to teach others how to properly sort trash and have a positive impact on the environment.
- Grade 5 students analyzed and measured the air quality of the school's indoor and outdoor spaces. With the support of Clean Air Partners and Casey Trees, they decided where to plant trees on our campus.
- In partnership with Audubon Naturalist Society, pre-K students learned about worm composting and grade 2 students participated in lessons about "Garbology," which included making paper.



ABOUT THE SCHOOL

Tubman Elementary offers a comprehensive academic program serving the needs of all learners. All students take science in Spanish daily as well have specials daily including wellness class, library, art, music and physical education. Tubman has its own Farmer's Market and is a Community School partnering with Mary's Center. The school offers a comprehensive family engagement program as well as after school programming, including karate, yoga, soccer, and theater. Before and after care are provided through Champions. Tubman has adopted the Creative Curriculum for the school's youngest learners, which allows them to learn organically through thematic play. Together with community partners and families, the school is putting students on a path to college and empowering them to question, challenge, and change the world.



By developing an environmental literacy program that is aligned to the science curriculum, we have been able to improve and expand our lessons. All the expert visits and field trips really made a lifelong impact on our students. They were able to connect the content with real-life applications".

- The Science Team, Tubman Elementary

ENVIRONMENTAL LITERACY PROGRAM

The goal of the Tubman Elementary Environmental Literacy Program is to provide students with a variety of outdoor and indoor experiences to learn and understand different environmental topics. The school partners with several organizations including Casey Trees, Clean Air Partners, the Anacostia Watershed Society, and the Audubon Naturalist Society. Tubman has started to develop a school-wide recycling program where all community members will be involved. The goal is to make sure recycling is done properly in all spaces of our building. After this first stage, the school will introduce goals about reducing trash output and how more materials can be reused before they are discarded. The outdoor garden will be used to show students how they can use trash items to build a greenhouse to grow more vegetables year-round. Tubman also continues using our hydroponic system to show students how food can be grown with less water.

NEXT STEPS

Tubman Elementary is committed to ensuring environmental literacy is included in all grade levels. In order to achieve this goal, the school will continue to reach out to partner organizations for guidance and support with virtual, indoor, and outdoor activities. The school will also make sure all staff and parents have access to in-person or virtual recycling workshops. Furthermore, Tubman will continue to maximize the use of the outdoor garden to make real life connections for all environmental literacy lessons. Additionally, the school will continue to develop leadership skills in students by showing them how they can become advocates of the environment.



LESSONS LEARNED

- Identify teachers, staff, and administrators who are passionate about environmental literacy to support your goals.
- Show students real-life connections or examples to make learning more meaningful.
- Develop student leaders to help sustain your goals and develop ownership of environmental issues.
- Field trips are an essential part of this program. They help keep students engaged and they can see firsthand our impact on the environment.





Whittier Education Campus

ENVIRONMENTAL LITERACY SNAPSHOT

2019-20 HIGHLIGHTS

- The entire school engaged in recycling during lunch, where Recycle Team Captains from all grade levels collected and sorted lunches, and placed them into their correct bins.
- All grade levels began recycling paper and our second-grade and third-grade recycling team members assisted with its collection traveling to classrooms and offices after each school day.
- Pre-K and grade 2 students worked with the Audubon Naturalist Society.
- Pre-K through grade 8 students participated in half-day engagements and learning stations with STEM partners and professionals from all fields during our fall STEM Day and spring STEM Night.

ABOUT THE SCHOOL

Whittier Education Campus, located in Ward 4 of Northwest Washington, DC, serves nearly 400 students from pre-K to grade 8. Whittier Education Campus serves a diverse population that consists of 21 percent English learners, 62 percent special education, and 100 percent economically disadvantaged students. Whittier Education Campus students in grades K-2 receive daily STEMscopes instruction and students in grades 2-8 participate in weekly STEM specials in our STEM Lab. Teachers utilize the outdoor classroom space, built with a community partner, Out Teach, to instruct lessons throughout the school year. Additionally, Whittier partnered with the Department of General Services to launch a school-wide recycling program that will help the school reduce its environmental footprint. Through the school's sustainability design, focus, and impact, Whittier hopes to become an innovative STEM school.



I really enjoy seeing the students learn about the environment and the excitement I see on their faces when they participate in engagements with our partners.”

- Kerel Thompson, STEM Coordinator, Whittier Education Campus

ENVIRONMENTAL LITERACY PROGRAM

The progression of the environmental literacy at Whittier Education Campus begins with exposure to our local habitat and backyard, Washington, DC. Partner organizations are aligned to an environmental need that aids students in seeing how their impact can affect the environment in which they live. Our pre-K through grade 8 students participate in various lessons with our partners from the Anacostia Watershed Society, Audubon Naturalist Society, Pepco, Casey Trees, Clean Air Partners, Department of General Services, and EcoRise Youth Innovations. All grade levels participate in a culminating project with their partner organizations that build upon their environmental learning, ranging from trash and recycling; studies of ecosystems, habitats, and restoration; climate change; and environmental audits (energy, water, air, trash, and food). In the end, the goal is for Whittier Education Campus students to use their understanding of interactions to engage in environmental sustainability practices at home and throughout their communities.

NEXT STEPS

During the 2020-21 school year, Whittier Education Campus will focus on urban sustainability to explore how a city can be self-reliant rather than dependent on resources from the surrounding area to thrive. The school will work toward practicing urban sustainability and educating students and the community about urban sustainability through continuation of the recycling and composting programs, and the expansion of the school garden. Additionally, the school hopes to provide more training and planning opportunities for teachers to align and integrate STEM content and resources into their instruction, thereby reinforcing environmental literacy, as well as engaging the community with monthly STEM talks hosted by STEM professionals from the sustainability fields. At the end of each quarter, Whittier plans to host a showcase where all grade levels have an opportunity to share, highlight, and explain their impact on the environment. The school hopes to engage students in projects, interactions with professionals, and trips throughout the school year to reinforce their learning. As the school continues in this mindset both in and out of the classroom, the hope is students will have a greater sense of independence and creativity, as well as pride in being residents of Washington, DC.



LESSONS LEARNED

- Establish consistent visits with partners throughout the school year.
- Provide opportunities for others to learn and grow in STEM.
- Make sure that you keep empathy as a focus throughout your planning.
- Keep student engagement at the heart of the work and ensure that they make connections.



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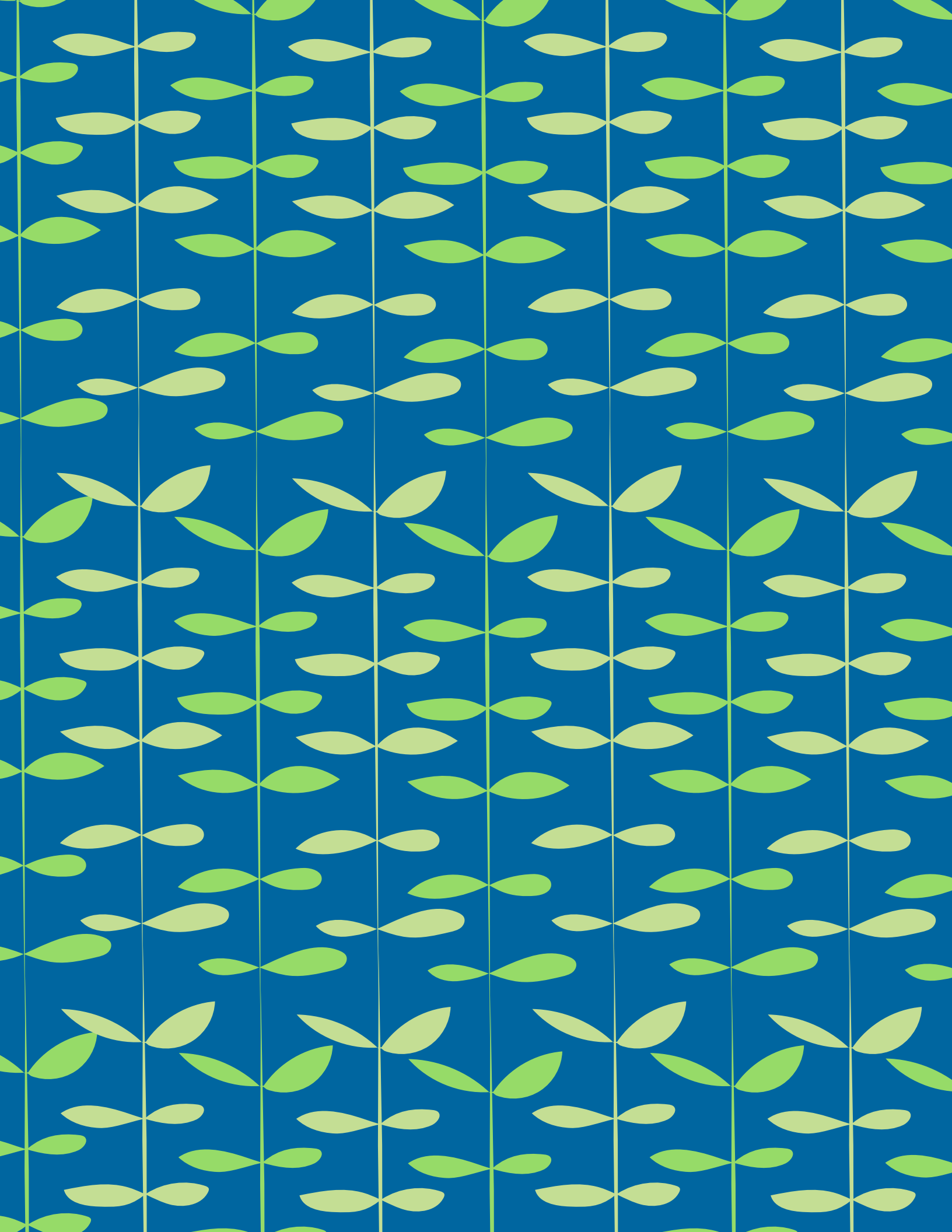
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