



Ann Arbor Public Schools Environmental Education Program

Presentation to the Board of Education

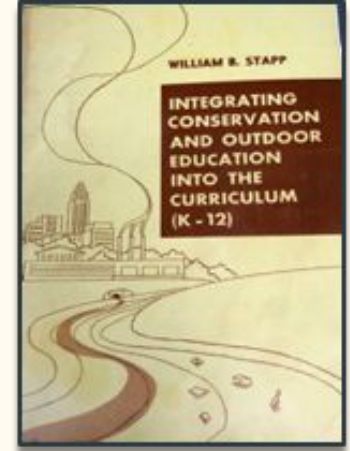
April 27, 2022

Program History

- Starting in the late 1950s, a talented group of local educators developed a **pioneering K-12 Environmental Education Program for AAPS.**

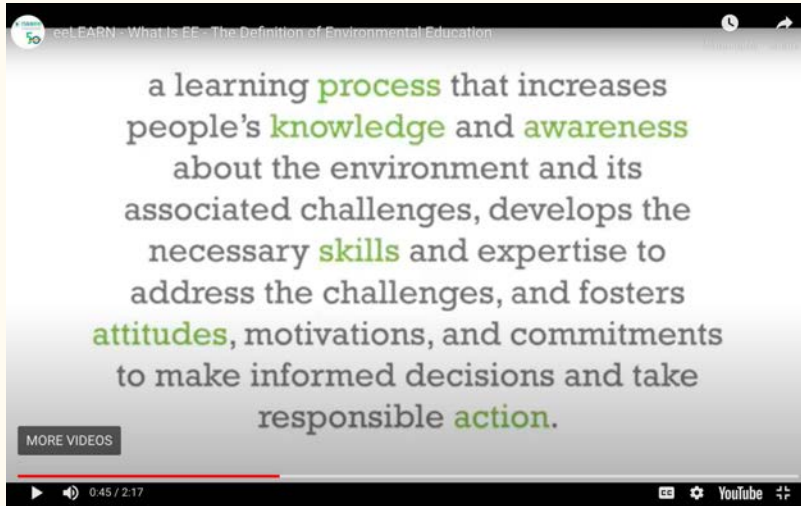


- Bill Stapp, Eunice Hendrix, Dorothy Blanchard, Bill Browning, and Dave Szczygiel are just some of the incredible environmental educators who have helped make the program possible for generations of local students.
- Ask just about any AAPS alumnus about their memories of field trips with the EE Program, and they will recall **impactful educational experiences in the outdoors.**



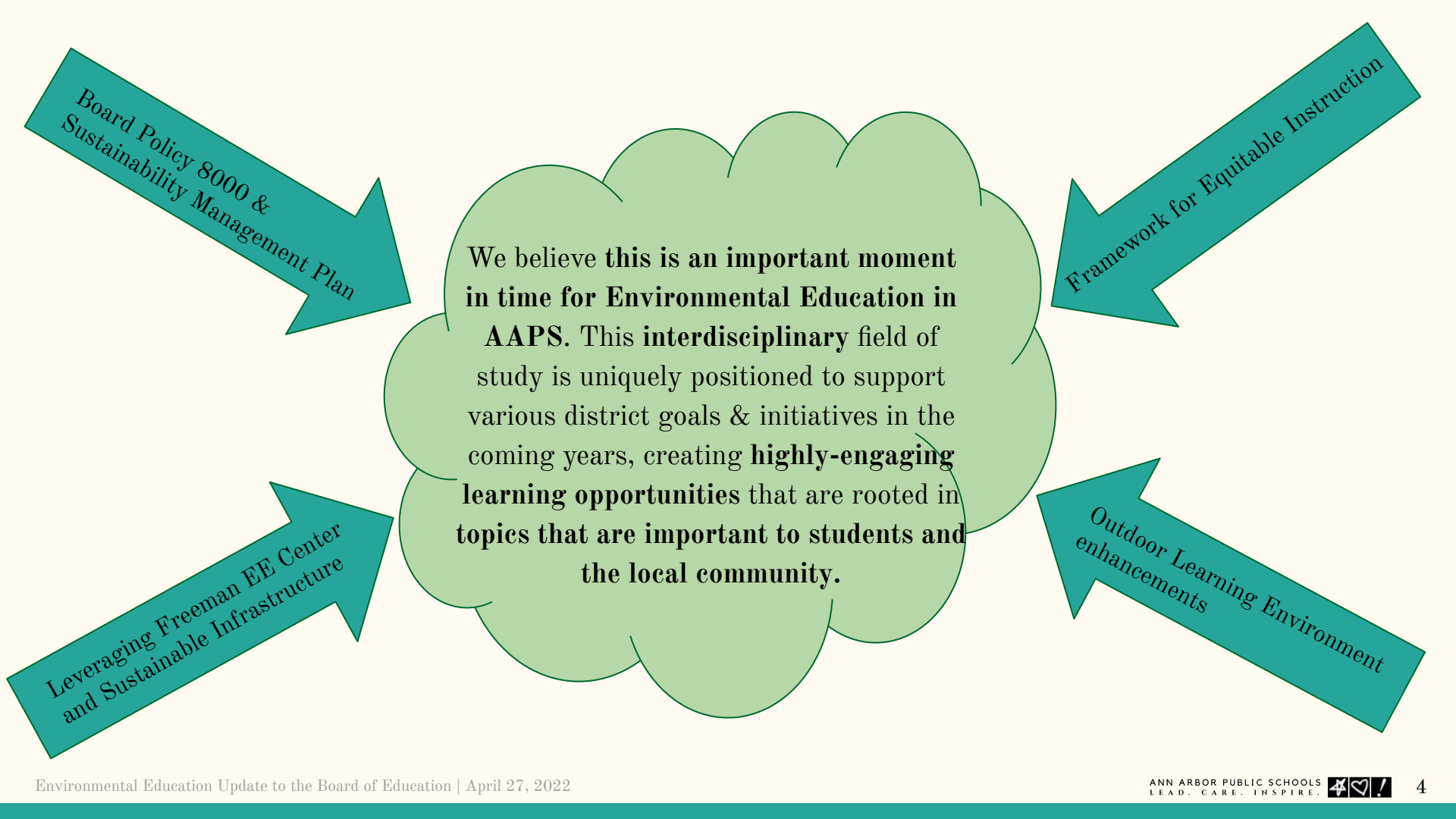
By 1965, William Stapp of the AAPS EE Program had literally "written the book" on environmental education.

Bill Stapp played an integral role in the first Intergovernmental Conference on Environmental Education in Tbilisi, Georgia in October 1977. The Tbilisi Declaration lays out a **foundational definition of EE** along with goals and guiding principles.



Check out this useful, 2-minute video overview of our interdisciplinary field of study!

- **Awareness** and sensitivity to the environment and environmental challenges
- **Knowledge** and understanding of the environment and environmental challenges
- **Attitudes** of concern for the environment and motivation to improve or maintain environmental quality
- **Skills** to identify and help resolve environmental challenges
- **Participation** in activities that lead to the resolution of environmental challenges



We believe **this is an important moment in time for Environmental Education in AAPS**. This **interdisciplinary** field of study is uniquely positioned to support various district goals & initiatives in the coming years, creating **highly-engaging learning opportunities** that are rooted in **topics that are important to students and the local community**.

Board Policy 8000 &
Sustainability Management Plan

Framework for Equitable Instruction

Leveraging Freeman EE Center
and Sustainable Infrastructure

Outdoor Learning Environment
enhancements

Current Programming

- In 21-22, the EE Program is on track to provide an **annual educational experience that supports and enhances classroom curriculum** for ~350 Young 5's to 6th grade AAPS classes!
- **2 certified teachers** and more than **2,000 volunteer naturalists hours** each year



- We are working to continue a tradition of excellence as we move forward with a new chapter of student engagement with the **Freeman Environmental Education Center** in Dixboro!

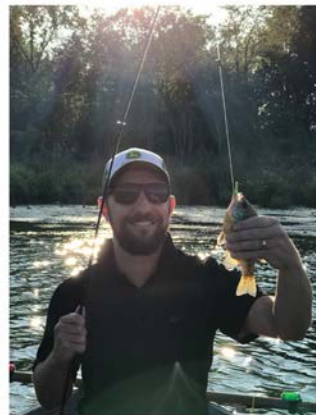
Collaboration & Community

- Our varied programming and district-wide reach allow us to **engage a diverse range of AAPS stakeholders:** students, classroom teachers, science curriculum coordinators, central administration, Physical Properties staff, Transportation, parents, and community volunteers.
- We maintain [a public-facing website](#) to help keep teachers and community members up-to-date on EE Program curriculum and current projects.
- EE Program staff help spearhead an **annual giving campaign** for the [‘AAPS Science & Environmental Education Endowment Fund’](#) and serve on the SEEE Committee.
- **Local partnerships** that enable us to provide unique learning experiences for AAPS students include: University of Michigan, City of Ann Arbor, Local park systems (Scio Township, Washtenaw County, Metroparks, UM), Michigan DNR, Michigan Alliance for Environmental and Outdoor Education, and more.



Staff

Dave Szczygiel has served in the role of Environmental Education consultant for AAPS since 1997.



Coert Ambrosino joined the program as an Environmental Education teacher in 2019 to assist with program expansion and the development of the Freeman EE Center.

Environmental Specialists

A small pool of talented naturalists who serve as substitute trip leaders when needed.



Esha Biswas is a graduate student studying Conservation Ecology at the University of Michigan's School for Environment & Sustainability (SEAS). She is collaborating with the Freeman EE Center on her Master's Practicum, which includes restoration ecology,



Elle Bogle is a naturalist with Washtenaw County Parks and Recreation. She is a Certified Interpretive Guide and a Certified Master Herpetologist with an area of focus on vernal pools. She leads the vernal pool volunteer monitoring



Kathy Coppens taught science at Tappan Middle School for twenty-four years. She was also the science curriculum leader and sponsored the Tappan garden club for ten years before retiring. Her education includes a bachelor's degree in science, with a

Volunteer Naturalists

We are so grateful for the incredible community of **knowledgeable naturalists who help facilitate small-group learning opportunities** for students in the field.

We currently have 25 active, trained volunteers.

We invite interested community members who want to get involved to visit our website and contact us to learn more!

www.a2schools.org/ee



Young Fives & Kindergarten

In place of the in-class lessons we offered in the past, in 21-22 we conducted **an outdoor lesson focused on identifying elements of animal habitat** on elementary school campuses.



In future years, one or both grade level programs may return to an in-class lesson:

- Young Fives - **Plants & Seed Dispersal**
- Kindergarten - **Explorations through the Seasons**





First Grade - Winter Animals at Kensington

- Explore **strategies** that animals use to survive the **Michigan winter**
- Hike the trails as “nature detectives” and hand feed the songbirds
- Study **animal adaptations**



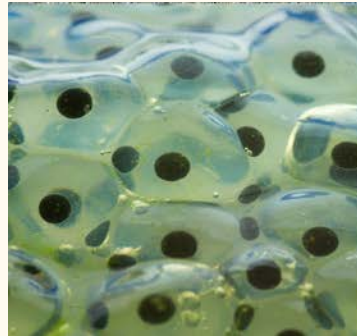
Second Grade - Plant Communities

- Visit various local natural areas to **examine evidence of plant reproduction and growth, survival needs, and changes in plant communities**



Third Grade - Habitat Studies

- Terrestrial or aquatic field activity to **study** how organisms “make a living” in a specific environment



Fourth Grade - Geology Study

- Visit a local gravel pit to collect rock specimens and **practice identifying common Michigan rocks and fossils**
- Practice making scientific observations of geologic specimens and features to **understand the formation story of different rock types and Michigan's glacial history**



Fifth Grade - Winter Survival

- Spend a winter day outdoors, **learning how to manage the cold and work in teams to build a cooking fire** using natural resources gathered on site
- Plan and cook a meal in small groups while practicing **teamwork, communication, and perseverance**
- **Learn stewardship practices** and get a sense of the challenges people in our region faced historically without the aid of modern technological comforts



Our 21/22 COVID-safe meal plan included an option to order an individual meal from Food Services to cook on the campfire.

Sixth Grade - Weather & Water Walk

- Students participate in interactive activities around their school campus to **explore connections between large precipitation events, stormwater management, and the local watershed.**
- An extension of the OSE ‘Weather, Climate, and Water Cycling’ unit, students **take field notes and practice recording measurements of atmospheric conditions** with handheld digital weather stations. Students then visit various places on campus to **record the likely paths of stormwater and identify potential locations for green infrastructure** to better slow down and clean stormwater on site.



Putting Freeman (Back) on the Map!



Freeman Environmental Education Center (FEEC)



The Freeman Environmental Education Center Advisory Committee is comprised of 23 students, parents, teachers, and other school district staff. Over the course of 10 months in 2018-2019, the committee developed the following recommendations for programming at the center. There are three recommendation categories, each with short, medium, and/or long term ideas for programming.

STUDENT ACHIEVEMENT, EMPOWERMENT, ACTION, LEADERSHIP

Short term (0-24 months)

1. Establish a **Youth Council** that is representative of the AAPS high school population to assist with planning & implementation of site work & learning opportunities.
2. Facilitate new learning opportunities for MS and HS students at Freeman that **tie environmental education to existing AAPS curricula**.
3. Develop a Rec & Ed **place-based stewardship education summer camp experience** to take place at Freeman.

Medium term (12-36 months)

1. Develop **environmental justice** and **climate change** programming, including engaging students in service learning and civic action on these topics.
2. Implement instructional models such as **place-based stewardship education, service-learning, and community science** to involve students in on-site research, data analysis, and other skill-building that can be leveraged for action at their home school and community.
3. Support student projects that involve **demonstration gardening** such as rain, pollinator, and vegetable/herb, and hydroponic gardening.

Long term (48-60 months)

1. Explore feasibility of new **skill-based certification and career pathways** focused

on environmental sustainability and climate change, such as environmentally-focused CTE.

2. Expand offerings for students and teachers by creating a formal **environmental education resource hub**, providing referrals to local experts and formalizing a check out system for equipment and supplies.

COMMUNITY AND NEIGHBORHOOD INVOLVEMENT

Short term (0-24 months)

1. Foster relationships with neighbors, community groups, and local institutions. In particular, engage with communities historically left out of environmental, sustainability and climate conversations.
2. Explore local, state, and national funding resources.

Long term (48-60 months)

3. Use Freeman site to host environmentally-themed community events and district staff professional development.

BUILDING AND GROUNDS

Short term (0-24 months)

1. Make **cosmetic and functional upgrades to lobby/open area, 3 classrooms, and office**.
2. Develop and install **EE displays** for school and community education in lobby.
3. Develop and install **materials and tools that complement the EE program**.

Medium term (12-36 months)

1. Facilities department: conduct **engineering and structural assessment** to determine long term use of existing structure.
2. Develop and install water management systems, gardens, and other **grounds projects** that tie to EE programming in Student Achievement, Empowerment, Action, and Leadership.



Despite the challenges imposed by the pandemic, we are excited about the progress we've made on implementing the **FEEC** **advisory committee** **recommendations!**



21-22 Freeman Progress



- **Two instructional spaces have been renovated** and EE Program materials & office are now located on site!
 - Displays, classroom technology installation, visuals and window clings in process for Fall 22'
- More than half of our **5th Grade** classes visited Freeman this year for their **Winter Survival** program
- Educational [prairie restoration](#) & “Observational Carbon Farming” project underway
- Improved trail system & [mowing plan](#)
- Multiple service events and tree planting efforts with Freeman Environmental Youth Council students
- April - June 2022: Red Oak saplings and native grasses and flower **nursery project** underway
- We’ve welcomed lots of **community stakeholders for tours** of the property, including an on-site presentation for the statewide Michigan Alliance for Environmental and Outdoor Education conference (October 2021)
- Spring 2022 projects still to come include **improvements of the front courtyard** by adding native plantings, construction of **composting infrastructure** and a temporary **art installation related to the prairie restoration** project with a Master’s student from the UM School for Environment and Sustainability.



Our prairie restoration project and “Carbon Farming” carbon sequestration study are providing **hands-on opportunities for students to learn about soil health, nutrient cycling, native plants, and ecological restoration.**



Freeman Environmental Youth Council



- District-wide **high school environmental leadership group** to provide youth voice and involvement in Freeman EE Center and district sustainability initiatives
- Youth-Adult Partnership framework with distributed student leadership and facilitation

"I have always loved being outside in nature, so after learning about all the problems facing the environment, specifically climate change, I have become very passionate about sustainability and climate justice."

"I joined the youth council because I wanted to make a difference."

"The Youth Council is a place for students' voices to be heard, and where improvements on our impact on the environment around us can be made."



"I have been concerned about climate change since I was in middle school. I wanted to find people who were concerned and motivated to act like I was."

"The youth council is an awesome opportunity to advocate for sustainable practices at the local level."

"I was drawn to the idea of being part of a student group that could unify separate schools into a collective effort to address issues of sustainability in the city and school system."



The mission of the Freeman Environmental Education Center Youth Council is to promote environmental literacy and sustainability through youth advocacy and decisive action. We recognize the power of a passionate student collective to inspire, coordinate, and champion local initiatives to spark global change for future generations.





51st Annual
(VIRTUAL)
ANN ARBOR EARTH DAY

Restore Our Earth

APRIL 25, 2021 • 1PM
WATCH ON CTN CHANNEL 16

DETAILS: [TINYURL.COM/KXHE9ZM4](https://tinyurl.com/kxhe9zm4)

FLYER BY ANNE LUI, THE FREEMAN ENVIRONMENTAL EDUCATION CENTER YOUTH COUNCIL, & ESMA RICHARDS

Green Michigan
Symposium

Hosted by the Freeman Environmental Education Center Youth Council

2:30-7 pm
Saturday, June 5

See details and register at
<https://tinyurl.com/em2xysws>

What can I do to help?

- Learn how to identify the invasive species that are in your area.
- Make sure that seeds are not stuck to your clothes or gear. You don't want to introduce or spread these plants to other areas!
- Clean mud or dirt off your vehicle, pets, and even your hiking boots before going onto public lands. Boat owners should wash their boat before going to a new lake, river, or stream.
- Don't plant invasive species at home or at school. Find native or non-invasive alternative species to plant instead.
- Volunteer to help inventory or control invasive plants.

**Resilient Washtenaw:
Climate Action Plan**

March 21st, 2022

THE FREEMAN
ENVIRONMENTAL
YOUTH COUNCIL
PRESENTS THE

*Holiday
Sustainability
Newsletter*

Our Guide to a Sustainable
Holiday Season!

AAPS ENVIRONMENTAL PLEDGE

Interested in pledging towards
sustainability?

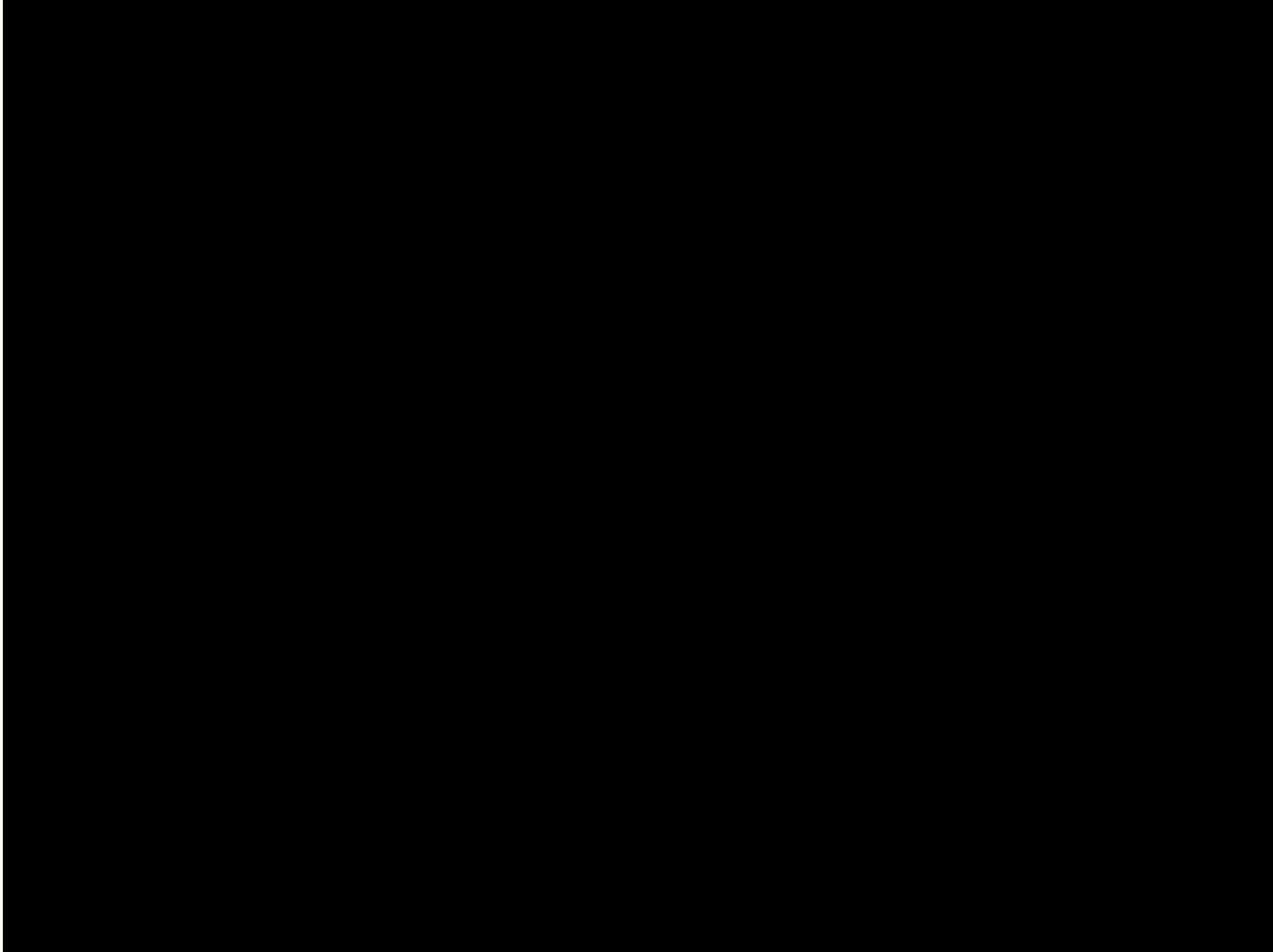
Native Plant Propagation Workshop @ the FEEC!





Youth Council at Earth Day Festival 2022





A2 Nature Guardians

- **Full day summer camp** offered through Rec & Ed and housed at Freeman!
- **Middle to upper elementary aged students** will take part in native plant gardening, nature art, outdoor activities and designing and playing their own nature board games!
- Led by **AAPS staff with Youth Council member volunteers**



NEW! A2 Nature Guardians

June 13 - June 17
9:00AM - 4:00PM
FULL DAY CAMP

Ages: 7-10.

Ready for a week full of exciting outdoor adventures? Want to help beautify and protect your environment? Join forces with Freeman Environmental Education Center staff to become a hero of your community by designing and installing a native plant garden while cultivating an awareness of nature's fiercest foes. Hands-on

We are excited to be planning a **collaboration with the Ecology Center** that will allow us to offer a **full-day learning experience for all 2nd Grade AAPS classes at Freeman in 22-23!**



- “Plant Communities” lesson with an EE Program instructor
- Zero Waste lesson with an Ecology Center instructor
- Two classes per day with lunch on site

Expanding Secondary Offerings

In 2022-23, we are planning to pilot a new field trip for 7th Grade science classes.

“Waste & Water Tour”: *How does Ann Arbor manage natural resources and waste streams?*



Students tour municipal facilities to **learn about how the City of Ann Arbor manages natural resources and waste streams**, and associated impacts on the environment.



Planning is also underway with **AP Environmental Science, ESS, and IB Diploma Program Science teachers** to support field experiences that provide opportunities for students to practice skills and apply knowledge from the classroom curriculum.



Looking Ahead

- By implementing the FEEC Advisory Committee recommendations, we're **working to make Freeman into a hub for district sustainability initiatives**, providing dynamic and inspiring instructional opportunities for students, staff and community members to learn best practices.
- We're working on a phased plan to expand program offerings and create a **systematic PreK-12 Environmental Education learning progression for all students** to develop environmentally-literate graduates.
- EE Program staff are serving on the **Environmental Sustainability Task Force** and **collaborating with the 'Teaching & Learning' working group** to prepare recommendations for the BOE on **expanded sustainability education opportunities in AAPS!**

www.a2schools.org/ee

