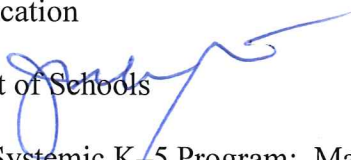


Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

August 16, 2017

MEMORANDUM

To: Members of the Board of Education

From: Jack R. Smith, Superintendent of Schools 

Subject: Update: Partnership-funded Systemic K-5 Program: Maryland Agricultural Education Foundation's Mobile Science Lab

The purpose of this memorandum is to provide an update on the current Maryland Agricultural Education Foundation (MAEF) Mobile Science Lab program, which commences its third year in September 2017. The current Mobile Science Lab program is a result of a partnership created in 2015 between the Montgomery County Government and Montgomery County Public Schools (MCPS), and between the Montgomery County Government and MAEF, to ensure that all MCPS elementary school students have an opportunity to increase learning about agriculture through the MAEF Mobile Science Lab (Attachment A).

The goal of the MAEF Mobile Science Lab experience continues to be the engagement of all students in environmental science investigations with a focus on agriculture. To date, the MAEF Mobile Science Lab has visited 51 schools and served 31,500 prekindergarten through Grade 5 students. Principal and teacher feedback have indicated strong support for the value of this program (Attachment B). By June 2019, the MAEF Mobile Science Lab will have visited all MCPS elementary schools.

If you have any questions, please contact Dr. Erick J. Lang, associate superintendent for curriculum and instructional programs, Office of the Chief Academic Officer, at 301-279-3411.

JRS:MVN:EJL;jm

Attachments


Copy to:
Executive Staff
Mr. Ikheloa

Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

May 6, 2015

MEMORANDUM

To: Members of the Board of Education

From: Larry A. Bowers, Interim Superintendent of Schools 

Subject: Agricultural Mobile Science Lab

On Monday, April 20, 2015, Mrs. Patricia B. O'Neill, president, Mr. Michael A. Durso, vice president, Montgomery County Board of Education; Dr. Maria V. Navarro, chief academic officer, Office of the Chief Academic Officer; and Dr. Erick J. Lang, associate superintendent for curriculum and instructional programs, Office of Curriculum and Instructional Programs (OCIP); met with Mr. George Leventhal, president, County Council; representatives of the Montgomery Countryside Alliance; and members of the Montgomery County Farm Bureau. The community representatives recommended, with the support of Council President Leventhal, a proposal to institute a mobile science lab (Attachment). Mr. Leventhal stated that if Montgomery County Public Schools (MCPS) supported the proposal, he would sponsor a budget amendment requesting the full Council to fund this program beginning in the 2015–2016 school year. The annual cost of the proposal is approximately \$61,000.

The proposed mobile science lab will visit approximately 30 elementary schools annually with a one-week residence at each school. Students from all grade levels will have access to the curriculum and hands-on activities offered by the visiting program facilitators, whose positions are included in the budget proposal. All MCPS elementary schools will receive a mobile science lab visit within a five-year period.

Following the April 20, 2015, meeting, representatives from OCIP visited a similar mobile science lab, which was onsite at an elementary school in Carroll County. The visiting team members reported that the lessons were well designed and involved problem solving, experimentation, as well as collection and analysis of data. They also reported the curriculum designers for the program indicated a willingness to modify curriculum as needed to align with the MCPS curriculum. In addition, the Department of Facilities Management (DFM) conducted a preliminary review of the proposed program. DFM reported that it is able to accommodate the electric, water, and parking needs of the mobile science unit at each elementary school location.

MCPS staff members will contact Mr. Leventhal's office to confirm our interest in partnering to implement this program. If you have any questions, please refer them to Dr. Lang at 301-279-3411.

LAB:MVN:EJL:llh

Attachment

Copy to:

Executive Staff

Mr. Song


Mr. Ikheloa

Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

September 2, 2015

MEMORANDUM

To: Members of the Board of Education

From: Larry A. Bowers, Interim Superintendent of Schools 

Subject: Partnership-funded Systemic K-5 Program: Maryland Agricultural Education Foundation's Mobile Science Lab

On Saturday, August 29, 2015, Mrs. Patricia B. O'Neill, president, Montgomery County Board of Education; Mr. George Leventhal, president, Montgomery County Council; and members of the Montgomery County Farm Bureau and Maryland Agricultural Education Foundation (MAEF), participated in a press conference at the Montgomery County Public Schools (MCPS) Back-to-School Fair. A new partnership with the Montgomery County Government, MAEF, and MCPS was announced that will ensure that all MCPS elementary school students have an opportunity to increase their learning about agriculture through the MAEF Mobile Science Lab. This event marked the inauguration of the MAEF Mobile Science Lab program as described in my May 6, 2015, memorandum to members of the Board of Education (Attachment A).

The goal of the MAEF Mobile Science Lab experience is to engage all students in environmental science investigations with a focus on agriculture. Lesson choices for the MAEF Mobile Science Lab were selected by the MCPS Elementary Integrated Curriculum Team. Lab investigations, taught by MAEF staff, will be conducted around grade-level aligned themes, and will provide students hands-on science and engineering experiences.

Weller Road Elementary School is the first school that the MAEF Mobile Science Lab will visit on September 15, 2015. MCPS elementary schools have been grouped into five cohorts for the scheduled MAEF Mobile Science Lab visits (Attachment B). The MAEF Mobile Science Lab will visit all MCPS elementary schools for a period of approximately one week per school within a five-year period.

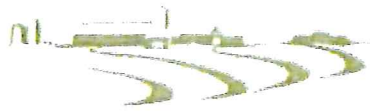
If you have any questions, please contact Dr. Erick J. Lang, associate superintendent for curriculum and instructional programs, Office of the Chief Academic Officer, at 301-279-3411.

LAB:MVN:EJL:lcj

Attachments

Copy to:

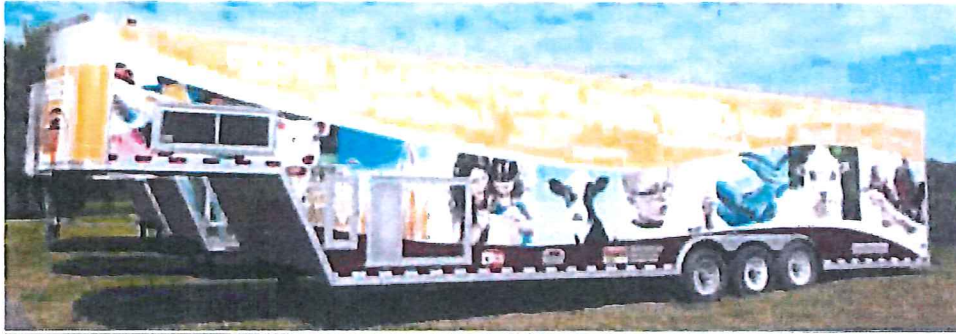
Executive Staff	Ms. Jenkins
Mrs. Alexander	Mr. Song
Mrs. Hazel	Mr. Ikheloa



Montgomery County Farm Bureau

Montgomery
Countryside
Alliance

Proposal to bring a specially tailored Maryland Agricultural Education Foundation's Mobile Science Lab to all Montgomery County elementary schools



Background for this proposal

Montgomery Countryside Alliance and Montgomery County Farm Bureau initiated this request in response to the recommendations put forth by the Farming at Metro's Edge (FAME) Conference held January 11-12, 2013. This represents an extraordinary opportunity to ensure that every Montgomery County elementary student, through each 4-5 year cycle, will have exposure to learning about agriculture, our extraordinary Ag Reserve and farms and their food system without the time and expense of off school field trips.



Excerpts from the Farming at Metro's Edge (FAME) Conference summary

Note: Conference was held in 2013 at Universities at Shady Grove

"...Three themes had support from roundtables in all three sessions..."

- "...more educational and technical assistance for farmers..."
- "...All three sessions also noted the need for more agricultural education for the non-farming public. Almost 17% of the 144 recommendations dealt with that deficiency, especially with regard to youth..."
- "...Preservation of more farmland..."

This proposal addresses the second theme, agricultural education for youth.



Benefits this proposal brings to participating Montgomery County elementary schools, their students and their teachers

- -Students and teachers benefit from on grounds field trip, saving time and money
- -Students conduct hands-on investigations on agricultural and food themes relevant to county residents
- -Lab exercises are matched to Common Core, STEM and other relevant standards and complement, not substitute for or replace, on-going classroom curriculum
- All laboratory and support materials are provided

Summary of responsibilities for the parties involved in this project:

The Montgomery County Executive and Council:

- **Appropriate \$51,000 of new funding per year for the Mobile Science Lab annual rental cost**
- **Appropriate an additional \$10,000 in funding for staff cost required to administer the program**

Montgomery County Department of Economic Development Ag Services Division:

- **Administer, oversee and evaluate the MAEF Mobile Science Lab program.**
- **Schedule lab visits prior to the beginning of the school year,**
- **Initiate requests for transport of the lab, and**
- **Pay MAEF for services rendered with the newly appropriated funds.**

Maryland Agricultural Education Foundation:

- **Build and equip a new Mobile Science Lab for Montgomery County,**
- **Modify parts of the "Food, Fiber and You" curriculum for relevance to Montgomery County's agriculture and food sectors and supply both the laboratory and classroom materials needed by each school,**
- **Provide a professional instructor on the lab and**

- Transport the Mobile Science Lab from school to school, as directed by DED Ag Services

NOTE: Less than half of the cost to build and operate the labs is covered by the rental fee. The rest is covered by revenue from the Maryland Ag Tag (colorful, farm scene MD license plates) and from donations.

Each elementary school would provide:

- A level site (minimum 20' x 50'), to park the Lab, that is accessible to students,
- A 220V, 50 amp "RV-type" electrical hookup (NEMA #14-R) within 75' of the center of the Mobile lab space,
- Water (hose bib) hookup and
- Parent volunteer to assist instructor at all times classes are in the labs

For more on the program : <http://www.maefonline.com/>

NOTE: See full proposal for details. For feedback from an elementary school teacher who has had first hand experience using the MAEF Mobile Science Labs, feel free to contact Ms. Karen Earp at Clarksburg Elementary School. She has offered to answer your questions and inform you of her personal experiences with the lab at her school. Her cellphone number is 301-580-5133 and her MCPS email is Karen_S_Earp@mcpsmd.org.

Contacts: Tom Hartsock: tgh@umd.edu
Caroline Taylor: caroline@mocoalliance.org
Jeremy Criss: Jeremy.Criss@montgomerycountymd.gov

Prepared: 4/11/2015

FY 16–FY 20: MAEF Mobile Science Labs Cohorts

Cohort 1 Schools (2015–2016)

Arcola	Cashell	Glenallan	Sargent Shriver
Bel Pre	College Gardens	Great Seneca Creek	Flora M. Singer
Bells Mill	Cresthaven	Kensington Parkwood	Somerset
Beverly Farms	Farmland	Little Bennett	Weller Road
Candlewood	Galway	Roscoe R. Nix	Wilson Wims
Cannon Road	Garrett Park	Rock Creek Forest	
Carderock Springs	William B. Gibbs, Jr.	Seven Locks	

Cohort 2 Schools (2016–2017)

Burnt Mills	Glen Haven	Montgomery Knolls	Rock View
Burtonsville	Greencastle	New Hampshire Estates	Rolling Terrace
Cloverly	Highland View	Oak View	Sligo Creek
Dr. Charles R. Drew	Jackson Road	Oakland Terrace	Stonegate
East Silver Spring	Kemp Mill	William Tyler Page	Takoma Park
Fairland	JoAnn Leleck at Broad Acres	Pine Crest	Westover
Forest Knolls		Piney Branch	Woodlin

Cohort 3 Schools (2017–2018)

Lucy V. Barnsley	Georgian Forest	Mill Creek Towne	Strathmore
Belmont	Goshen	Olney	Strawberry Knoll
Brooke Grove	Greenwood	Judith A. Resnik	Summit Hall
Brookhaven	Harmony Hills	Rock Creek Valley	Viers Mill
Flower Hill	Highland	Rosemont	Washington Grove
Flower Valley	Maryvale	Sequoyah	Wheaton Woods
Gaithersburg	Meadow Hall	Sherwood	

Cohort 4 Schools (2018–2019)

Brown Station	Darnestown	Spark M. Matsunaga	South Lake
Cedar Grove	Diamond	S. Christa McAuliffe	Stedwick
Clarksburg	Fields Road	Ronald McNair	Waters Landing
Clearspring	Fox Chapel	Monocacy	Watkins Mill
Clopper Mill	Germantown	Poolesville	Whetstone
Capt. James E. Daly	Lake Seneca	Dr. Sally K. Ride	Woodfield
Damascus	Laytonsville	Lois P. Rockwell	

Cohort 5 Schools (2019–2020)

Ashburton	Chevy Chase	Thurgood Marshall	Twinbrook
Bannockburn	Cold Spring	North Chevy Chase	Wayside
Beall	DuFief	Potomac	Westbrook
Bethesda	Fallsmead	Ritchie Park	Wood Acres
Bradley Hills	Jones Lane	Rosemary Hills	Wyngate
Burning Tree	Lakewood	Stone Mill	
Rachel Carson	Luxmanor	Travilah	

Maryland Agricultural Education Foundation (MAEF)
Mobile Science Lab Program in MCPS

Feedback from Teachers and Administrators

MAEF provided these responses given to them from MCPS elementary school staff:

- It was fun and unique and tied into our curriculum.
- Very engaging and kid friendly!
- Thank you for organizing an incredibly awesome experience that I did not know existed.
- My students all said that it was fun and engaging and it kept their attention.
- This was an out of the ordinary, fun experience that tied to what we have been learning.
- The bracelets allowed for something concrete for students to walk away with that would help them discuss what they learned.
- It was interesting to the students and matched Grade 3 science and social study objectives.
- The students really enjoyed their time at the lab and learned from it while having fun.

On MCPS request to randomly selected schools, these comments were shared:

- First of all, our kids loved it. The instructor was great. Teachers found the lessons supported their curriculum and the hands on science was awesome and age appropriate.
- Our students were able to see science in a different setting. The experiments that were presented and completed by our students kept them highly engaged, focused, and motivated to see the results of their efforts. The activities were well planned and age appropriate. Students were talking about their participation at the lab days after it left our campus.
- The MAEF Science Mobile Lab went really well! The instructors were very organized and the lessons followed a clear and logical order. Lessons were aligned with our science curriculum, they were engaging, and the kids were excited about them. In 5th grade, we took DNA from bananas. I took informal feedback from other teachers and they also seemed pleased with the program. Also, the mobile lab was very flexible with regards to scheduling. We had more homeroom classes than other schools typically have, our week was during Valentine's so we lost a day -- MAEF was very understanding and accommodating in order to make sure all students could get the experience.
- It was fun and unique and tied into our curriculum. Very engaging and kid friendly. Thank you for organizing an incredibly awesome experience that I did not know existed. My students all said that it was fun and engaging and it kept their attention. This was an out of the ordinary, fun experience that tied to what we have been learning. The bracelets allowed for something concrete for students to walk away with that would help them discuss what they learned. It was interesting to the students and matched Grade 3 science and social study objectives. The students really enjoyed their time at the lab and learned from it while having fun.
- "First of all, our kids loved it. The instructor was great. Teachers found the lessons supported their curriculum and the hands on science was awesome and age appropriate."