

HOW DOES THE MOBILE SCIENCE LAB WORK?

The Mobile Labs are scheduled at a school for a one-week session. Hands-on investigations are conducted around a particular theme: Ag Products, Aquatics, or Biotechnology. Five to six sessions can be conducted per day. During the remaining blocks of time, other classes may visit the lab and complete mini-lessons. Scheduling is flexible and is determined by individual school needs and size.

Schools select investigations that can be integrated into their curriculum. Activity schedules are tailored to meet individual needs. Lab investigations match the Maryland Voluntary State Curriculum. Resource materials are available for teachers to use in their classrooms to supplement, integrate and extend lab lessons.



Mobile Science Labs are presented by the Maryland Agricultural Education Foundation as part of the Maryland Ag in the Classroom program. Since 1989, the Foundation has provided quality hands-on workshops and classroom-ready resources to educators.



Maryland Agricultural Education Foundation

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The Maryland Agricultural Education Foundation also offers these educational opportunities:

AITC ELEMENTARY SUMMER WORKSHOP

A chance for K-5 teachers to experience a week-long workshop filled with hands-on activities, field trips, numerous resources, lesson plans, and models plus the opportunity to earn 3 MSDE credits.

MINI-GRANT PROGRAM

Mini-Grants support development of innovative projects relating to agriculture. Selected programs are shared with teachers statewide.

TEACHING EXCELLENCE AWARDS

Awards honor educators with outstanding teaching practices that increase student agricultural literacy and encourage others to integrate agriculture into their classroom studies.

AG RETURNS TO THE CITY

This new program exposes both students and teachers to agriculture and the food system through classroom activities, hands-on urban gardening, nutrition education and teacher training using MAEF resources.

MIDDLE SCHOOL AITC WORKSHOP

Subject-specific professional development for teachers of grades 6-8 in the areas of Physical Sciences (Life, Earth & Environmental Science) and Social Sciences (Geography, Economics, Peoples of the Nation & World), and Family and Consumer Science.

RESOURCE MATERIALS

MAEF now has an exciting array of original resource materials that include:

- Take Me Out to the Cornfield DVD/video & lesson guide
- Digital Atlas of Maryland
- Maryland Commodity Map
- Literature Links to Agriculture
- Baker's Dozen of Agricultural Lesson Plans
- Green Thumb Gems for the Classroom Window Sill
- Edible Classroom
- Career Discovery
- And More! Contact the Foundation office for information



Ag in the Classroom MOBILE SCIENCE LABS for Hands-on Learning



LESSONS MATCHED TO MD STATE STANDARDS



HANDS-ON INVESTIGATIONS



UNIQUE LEARNING ENVIRONMENT



FIELD TRIP ON SCHOOL GROUNDS

Meet education goals with this innovative and effective learning experience for your students



Students work in cooperative teams as

they investigate problems using the scientific method and a variety of scientific equipment.

Hypothesizing, experimenting, collecting data, and drawing conclusions enable students to relate to the work of real life scientists.

EARLY RESERVATIONS ENABLE SCHOOLS TO SECURE THE LAB OF THEIR CHOICE AT THE TIME OF THE YEAR THEY MOST DESIRE. CALL NOW TO RESERVE A DATE!

"It is important to get students interested in science at a young age and this is the way to do it! Our students loved the hands-on activities that related to things they do every day. Parents said their children were excited to tell about what they'd learned. We're adding the labs to our academic program every year!"

Schools may select from a variety of investigations and demonstrations based on Maryland Voluntary State Curriculum, such as:

AGRICULTURAL PRODUCTS

- Examine and record grain properties
- Examine environmental impact of petroleum and corn packing foams; make corn plastic
- Produce glue from milk; test its strength against a commercial glue
- Discover the fat content of some favorite foods and learn how to read nutrition labels
- Act as egg inspectors to candle, weigh, and measure eggs; test for freshness
- Explore how lip balm can be made from soybeans
- Reveal the power of a soybean by planting it in Plaster of Paris and producing an environmentally friendly product

AQUATICS

- Measure pH, dissolved oxygen, nitrates and ammonia to determine habitat water quality
- Determine which groundwater wells might be influenced by a point-source pollutant
- Observe water holding capacity of an ag product to determine how it can promote growth in seeds and plants as well as help clean up oil spills
- Discover sugar content of favorite beverages while experimenting with density
- Experiment, observe, and collect data on how fresh, brackish, and salty water effect animal life
- Build a terra aqua column to investigate terrestrial and aquatic ecosystems
- Set up a water recycling experiment to see if polluted water can be cleaned
- Discover how Integrated Pest Management helps farmers while protecting water

BIOTECHNOLOGY, FOOD, FIBER AND YOU

- Use scientific method to test petroleum based and soybean crayons for certain properties
- Produce a vegetable-based glue; compare it to a commercial glue testing viscosity and strength
- Test milk products to determine which one will produce butter
- Replicate wool plying process and dye wool
- Experiment with handwashing techniques to determine how to control bacteria causing illness
- Observe the conditions that create the best environment for fungi organisms (yeasts) used in bread making to work
- Develop an understanding of genes and how genetics can improve an ag product

SCIENCE LAB PROVIDES:

- Engaging hands-on investigations matched to Maryland Voluntary State Curriculum
- Well designed investigations to excite students about science and their connection to the world
- Professional instructor on board
- Materials and handouts for use before, during and after lab visit
- Transportation of lab to your school

SCHOOL PROVIDES:

- Level site easily accessible to students and a minimal space of 20' x 50'
- Electrical 220v 50 amp "RV Type" hookup (NEMA #14-50R) within 75' of the center of the mobile lab space
- Water (hose) hook-up
- Registration fee: \$1,500/week or \$1200 for 3-4 day week (for 500 students, that's only \$3 per student)