



Horses for Courses!

Farm-Based Education Curriculum

for

Maryland Horse Discovery Centers





Horses for Courses!
Farm-Based Education Curriculum
for
Maryland Horse Discovery Centers

The Maryland Horse Industry Board (MHIB) program is happy to share this curriculum guide with farm-based educators and non-formal teachers who work with Horse Discovery Center stables and equine centers open to school group visits. *Horses for Courses* raises the level of public awareness of Maryland's equestrian/equine traditions and the positive impact of horses on the quality of life in Maryland by blending history and science education with dynamic, fun, hands-on lessons for grades 4 through 8. Lessons have been aligned with MSDE Voluntary Social Studies Standards, Next Generation Science Standards, and the Maryland Environmental Literacy Guidelines.

Special thanks go to the great team of curriculum writers who worked to bring this curriculum together! Writing staff include equestrians Jennifer Purcell, Ahesahmahk Dahn, Nicky Wetzelberger, Ann Petrasek, Gayle Mahaney, Tracy McKenna, Renee Dixon, Maryanna Skowronski, Barbara Sollner-Webb, Cathy Schmidt, Carlene Eaton, and project editor Dana Knighten brought together their knowledge of Maryland horse history, equine standards of care, and industry expertise to create a four-unit, 20 lesson collection that covers horse health and care, history, equine landscapes, and equine careers. Peggy Eppig, MAEF, coordinated the project and produced the curriculum book.

We offer occasional professional development for Horse Discovery Center staff and others to train educators on how to use the curriculum and how to provide meaningful field trip opportunities for teachers and students. If interested in a training session please contact the Maryland Horse Industry Board:

Maryland Horse Industry Board



Maryland Department of Agriculture

50 Harry S. Truman Parkway
Annapolis, MD 21401

Phone: 410-841-5798

Email: ross.peddicord@maryland.gov

Table of Contents

Farm-Based Education for Your Horse Discovery Center

Farm-Based Education and Agri-tourism	9
Educational Mission Statements	9
Facility Must-Haves for School Groups	10
Facility Nice-to-Haves.....	10
Rules for Schools	10
Group Management.....	11
Orientation for Students	11
How To Use the Maryland Horse Discovery Center Curriculum Guide	12
Setting Up Stations	13
Measure Your Success!	13

Horses for Courses Units and Lessons

Unit I: The Equine Landscape

Keeping Horses on The Land 17

Students will experience the equine landscape from the perspective of human and natural history and demonstrate an understanding of conservation and sustainability issues that affect a horse farm.

Trail Care Day 20

Students will participate in a trail maintenance activity and demonstrate an understanding of stewardship and multi-use trail responsibility and protection.

Livestock, Athlete, or Recreation? 24

Students will explore the history of horses in Maryland to understand how humans have utilized these animals in different ways and how different perspectives for their use reflect values that affect policies and regulations.

A Need for Breeds 27

Students will explore breeds to understand that throughout history people have selectively bred horses to serve certain purposes and needs on the land.

Unit II: The Healthy Horse

The Form of the Horse 33

Students will learn the importance of good conformation and how horse anatomy contributes to its physical ability and how anatomy developed through interaction with the environment.

The Equine Veterinarian 37

Students will explore the work of equine veterinarians as they conduct a routine exam and address more serious health issues through analysis and consultation.

Reading the Horse..... 41

Students will demonstrate an understanding of horse behavior as it relates to physical and social environment.

My Healthy Horse 44

Students will be able to compare and contrast the requirements for good human health and the responsibilities of horse owners for the health of their animals in their environments.

Unit III: Sporting Horses

How Many Hands? 49

Students will be able to measure a horse in hands and determine what tasks certain breeds may be best suited for.

Necessity to Sport 53

Students will be able to describe at least three popular competitive equestrian activities that are based on the historic uses of horses in industry and military service.

Run and Jump! 56

Students will use math and design skills to create a cross-country course that honors Maryland traditions in hunting and a mounted military.

Spark and Queen Mab 59

Students will understand the role that fast horse breeds have played in Maryland equine history for recreation, sport, and service.

Unit IV: The Art of the Horse

Shades, Stars, and Stripes 65

Students will be able to recognize and identify the variety and beauty of markings and colors of horses in life and art.

Equine Unveiled 70

Students will explore how the horse has elevated the respect and esteem we hold for important figures in national and state history.

Mainly Manes 73

Students will be able to braid and weave a horse’s mane using basic fiber arts techniques.

The Equine Artist 75

Students will demonstrate the foundations of equine illustration with direct observation.

Unit V: Careers with Horses

To the Rescue! 81

Students will explore many aspects of emergency horse care through a variety of careers that specialize in or include equine emergency response.

Will Work for Equine 84

Students investigate careers that deal primarily in the equine industry and learn what educational tracts are most important for entering such careers.

Home for Horses 87

Students design and build barn and stable models using architectural design principles based on the care and comfort of horses.

Supporting Horses 91

Students explore a range of support jobs that help horse owners, managers, and industry leaders promote and protect the equine industry in Maryland.

Unit VI: The Urban Horse

Horse-Drawn Transportation95

Students will examine how transportation innovations occurred incrementally over time by addressing inefficiencies.

Wide Wheels Are Free97

Students will explore the consequences of wheel design on road surfaces and suggest new conceptual designs of low impact wheels.

Fire Horse!101

Students will apply concepts of statistics and probability to analyze and characterize data.

Special Delivery108

Students will use calculating and estimating to determine the rate of waste production by unit and scale.

Resources

Standards 106-108

Materials and Costs 107

Farm-Based Education for Your Horse Discovery Center

Farm-Based Education and Agri-Tourism

Know the distinctions between agri-tourism and farm-based education when marketing your program to schools and youth organizations. While agricultural education is fun on the farm, not every fun activity is necessarily educational. Be sure to seek help aligning your activities with the needs and standards of your local schools.

When discussing a farm-based education program with your farm insurance company be sure to explain the differences in audiences and goals between entertainment events you may offer and educational field trips. The distinction will be important in waivers and releases.

Educational Mission Statement

An educational mission statement describes the purpose and philosophy of your organization. As a Horse Discovery Center you may already have a mission statement, but it is important that a mission statement is developed specifically for your K-12 farm-based education program. This is helpful for teachers, parents, and administrators who want to learn more about your educational program. Make it easily available on your web page or promotional materials.

Your educational mission statement should reflect your unique program, unique topics and content, and the student audience you serve. Mission statements should change as you expand or improve your program. Revisit your educational mission statement every year to ensure that it is being upheld and accurately reflects the purpose and philosophy of your organization.

An example -

Our intermediate and middle school farm-based education program reflects the rich equine history of our region, from Maryland's early colonial period to the Battle of Antietam, with science and history-based, hands-on lessons that feature safe and exciting close encounters with our horses!

When creating your farm-based education program, reflect on your mission. All education programs should directly relate to your mission and organizational goals. In the beginning create one or two quality foundation programs that you are passionate about. Work to refine and improve your foundation program and grow from there!

Facility Must-Haves for School Groups

If you are already a Maryland Horse Discovery Center, then you should have restrooms and hand-washing stations available. An indoor or event tent meeting space is important if weather forces a change of venue for activities or lunch.

Consider the size of your parking area. Is there adequate space for a bus or large vans to park and turn around? Consult with a teacher or local school administrator and invite them to visit your facility. What suggestions do they have for accommodating school groups?

Facility Nice-To-Haves

Build a rolling rack for rubber boots and jackets.

Construct a picnic ground in a shady area.

Make a hay bale circle for gatherings and wrap-up activities.

Create a class picture area where students and teachers can assemble with a scenic view.

Install a “Sightings” board to keep track of birds, mammals, weather, and natural events.

Outfit an indoor classroom with supplies you need for indoor and outdoor activities.

Add your ideas!

Rules for Schools

You should have a short list of non-negotiable rules that ensure a safe field trip. Depending on your site, these rules could include the following, but should reflect the farm’s unique safety profile as well.

Use quiet, calm voices around horses.

Define areas where students may be and where students are not allowed.

No running unless allowed in a game or event.

Students must stay with their group.

Group Management

Ask students to help define ground rules for behavior. Ask them what behaviors would be most appreciated by horses and staff. What rules are essential for everyone's safety - including the horses? Ask students and teachers to self-regulate their group's behavior so that you can direct your attention to facilitating a fun experience for everyone! Invite teachers and chaperones to be part of the group and not just tag-a-longs. Encourage conversation and questions regarding how to best manage themselves.

Share "unwritten rules" of human behavior that other groups of people use around animals.

- Wildlife photographers have a ground rule that states if the animal they are photographing moves or displays nervousness at their presence, then the photographer is too close and should back away.
- Hikers who walk through wilderness areas share news about avoiding trails where mother animals and their young have been spotted.
- Animal rescue workers follow rules of calm engagement when attempting to move frightened animals to safer surroundings.

How will students and teachers help to maintain a good learning environment for themselves on the farm while also creating a safe and calm group atmosphere that will allow them to be close to horses?

Orientation for Students

It is important to remember that many students have never been to a farm. Open spaces and long views, though beautiful to us, may be disorienting and overwhelming for some children. It helps to have a place on the farm where students and adults can position themselves in relation to the home school, their neighborhoods, and within the larger geographic region of the Chesapeake Bay Watershed.

Have students observe the lay of the land. Point out valleys that contain creeks or rivers. Use a map to locate your Horse Discovery Center within the state, region, and watershed. Ideas for display maps can be simple and creative.

- Handouts
- Chalkboard/Blackboard section on barn siding
- Highway maps
- Screen-projected/interactive computer-based map
- Painted pavement diagram map
- Bed sheet display map

How to Use the Maryland Horse Discovery Center Curriculum Guide

The lessons and activities in this guide were designed and written by members of Maryland's horse industry with the aim of introducing students Grades 4 through 8 to equine sport, history, and science by visiting a Horse Discovery Center. This curriculum was developed using Next Generation Science Standards, Maryland Standards for Social Studies, and the Maryland Environmental Literacy Standards.

To accommodate groups of all sizes, each lesson is arranged in a five-part sequence that can be adapted to small groups of ten to twenty students traveling through stations on the farm. Stations can be managed by farm-based educators, volunteers, or staff if rotation groups of students is continuous. Activities can also be facilitated by a single farm-based educator if the class is small enough to travel as one group.

The five activities in each lesson follow the **5-E Instructional Model** for experiential science education: **Engage, Explore, Explain, Elaborate, and Evaluate**. Do not feel constrained by this sequence, however! Feel free to rearrange the sequence as needed by your farm's particular layout or group's objectives. If a particular lesson does not completely meet the needs of your program, feel free to swap activities with other lessons and adapt any of the material to your own unique equine industry profile.



Setting Up Stations

The 5E model makes setting up pretty easy, though you may want to do the Engage activity all together to set the tone and theme for the visit. Depending on which lesson or combination of lessons you chose to do for the day, keep your eye travel time from place to place as this can certainly eat into the time needed to complete each activity.

Mark each station with a sign that can be read from a distance so students know where to travel next. This can be a colored bandana or scarf attached to a pole or door, or if you have time, a lettered sign that names the activity.

Different groups can travel together as long as each group has its own work area or guide volunteer to lead them through the activity. Or, if you have staff available, groups can travel individually to stations on a their own rotation. Decide what station method works best for each school.

If you plan to use stations repeatedly over the season with many schools, keep a station bin handy in which to keep materials and restock consumables. Stations can be portable this way and can be placed in different locations around the farm.

Measure Your Success

Evaluation and feedback is so important!

Do you have a way for teachers and parents to provide you with comments, suggestions, and ideas to help improve your program, or better yet, to help promote it? Consider an online form or paper survey that can be “cashed in” as an incentive for a return visit. Team up with a local creamery or farm stand and create a coupon that you can give to every student or teacher who completes a survey at the conclusion of the field trip.

Though each lesson contains an Evaluate activity you may want to expand on opportunities for students to share what they liked best about their visit to include what they learned and how the experience has enhanced their knowledge of horses, history, and science. Even a simple conversation as they wait to board the bus can be valuable for you and the teacher.

Invite students to return for lessons with a discount offer. You can hand out coupons or flyers as they leave to take home. Offer a coupon for students to redeem at a future event. Keep track of how many coupons are returned as a measure of community and family interest in your farm.