



## Activities for Day & Overnight Programs (As of Spring 2022)

These classes are designed for **grades K through 8**. Students will complete one activity before and the other after a thirty-minute lunch break. The day typically runs from 10:00 AM to 2:00 PM. Each activity includes recommended pre- and post- field resources and lessons that students can do in the classroom to prepare or to consolidate their knowledge.

### Farm Animals and Exploration | Grades K-8

Students will experience our small 1950's era working family farm and learn where their food comes from. Students will connect the animals they meet and the plants they observe to their survival needs and also connect them to the variety of products we use in our daily lives. They will explore the barnyard and pastures, meet goats, chickens, cow, and sheep, and connect food and fiber to their plant and animal sources. Students will also explore the forest, swamp, and marsh habitats between Hard Bargain Farm and the Potomac River and learn how to identify the habitat needs of the diverse wildlife that lives in these different ecosystems. Students will also take a nature hike during their time on the farm.

**Standards:** Supports NGSS K-LS1-1; 2-LS4-1; and K-ESS2-2.

### Up A Creek | Grades 3-5

Students will hike through diverse forest habitats to a stream where they will investigate the macroinvertebrates who live there and how the diversity of these creatures can inform our conclusions about water quality of the Accokeek Creek watershed (a tributary of the Potomac River). Students have the opportunity to take a hike to the river to connect their observations of the tributary to the larger Potomac River Watershed.

**Standards:** Supports NGSS 3-LS3-4; 4-LS1-1.

**Recommended Activities** (from *Alice Ferguson Foundation's Resource Library*): **Take Out the Trash** | **Water Cycle** | **Ways of a Watershed** | **Classified Information** | **Let's Take a Dip**

## Birds Up Close | Grades 3-8

- **Grades 3-5**

Students use our extensive taxidermied bird collection to learn how to locate and identify our local birds. They will then differentiate between birds in different outdoor habitats. Students will also explore the forest, swamp, and marsh habitats between Hard Bargain Farm and the Potomac River to make additional observations of diverse wildlife that live in different ecosystems and learn how to identify their habitat needs.

**Standards:** Supports NGSS K-LS1-1; 2-LS4-1.

**Recommended Activities** (*from Alice Ferguson Foundation's Resource Library*):

**Take Out the Trash | Classified Information**

- **Grades 6-8**

Students will use our extensive taxidermied bird collection to learn how to locate and identify our local birds. Taking what they have learned about bird features, students will locate and make observations of birds in different ecosystems on our farm along the Potomac River. Through investigation of forest, marsh, and swamp habitats, students will examine how the availability and quality of resources in an ecosystem will affect the populations of organisms that live there, as well as how humans have impacted the area, particularly in changes to habitat quality. They will learn how the landscape has changed over time and how this may have affected the animal populations that live and migrate through here. They will also investigate weathering and how communities have created solutions to protect the Earth's resources and environment.

**Standards:** Supports NGSS MS-LS1-4, MS-LS2-1 MS-LS2-4, MS-ESS2-4, and MS-ESS3-3.

**Recommended Activities** (*from Alice Ferguson Foundation's Resource Library*):

**Take Out the Trash | Classified Information**

## Down to Earth | Grades 3-8

- **Grades 3-5**

Students will model different ways humans have changed the land around Hard Bargain Farm, including our Children's Garden, and then test how water affects or is affected by these changes. Also, students will use hands-on methods to identify different types of soil, trace the energy of their food back to the energy from the sun, plant and harvest food according to the seasons, and investigate pollinators and decomposers who do the behind the scenes work of making our garden grow.

**Standards:** Supports NGSS 3-LS1-1, 4-LS1-1, 4-ESS2-1, 5-PS1-3, 5-PS3-1, 5-LS2-1, and 5-ESS2-1.

**Recommended Activities** (*from Alice Ferguson Foundation's Resource Library*):

**Take Out the Trash | Water Cycle | Ways of a Watershed**

**Note:** Offered March – November

- **Grades 6-8**

Students will learn to be gardeners and scientists in this exploration of the soil and plants around the Hard Bargain Farm Children's Garden. Students will be given the tools to set up investigations about the pollinators and decomposers who reside in or visit the Children's Garden and they will compare their results to what other students have observed in different seasons. Students will also be given tools and guidance to plant and harvest food according to the seasons. Students will model different ways humans have changed the land and test how water affects or is affected by these changes. Students will learn hands-on ways to identify the different types of soil and how they might have developed in this place over time. By the end of this class, students will describe food webs they observed and participated in, as well as the role of photosynthesis in the cycling of matter and flow of energy in this vibrant ecosystem.

**Standards:** Supports NGSS MS-LS1-6, MS-LS2-1, MS-LS2-3, MS-ESS3-3 and MS-ESS3-4.

**Recommended Activities** (*from Alice Ferguson Foundation's Resource Library*):

**Take Out the Trash | Water Cycle | Ways of a Watershed**

**Note:** Offered March – November

## Rivers in Action | Grades 3-8

- **Grades 3-5**

Students will develop a hands-on model of how human land use can be affected by the power of water, especially how it changes the shape of land. They will then generate possible solutions that could reduce the effects of weather events on humans. Students will then explore the forest, swamp, and marsh habitats between Hard Bargain Farm and the Potomac River, making observations of the plants and wildlife that live in the different ecosystems in order to identify some of the adaptations that allow them to survive in this habitat. Additionally, students will look for evidence of how the landscape has changed over time due to weathering (especially erosion) and human impact. Students will investigate how these factors may affect the wildlife who make their home here. Students will hike to and from the Potomac River.

**Standards:** Supports NGSS 3-LS4-2, 3-LS4-3, 4-PS3-3, 4-LS1-1, 4-ESS2-1, 5-ESS2-1, and 5-ESS3-1

**Recommended Activities** (*from Alice Ferguson Foundation's Resource Library*):

**Take Out the Trash | Water Cycle | Ways of a Watershed**

**Note:** An additional \$50 fee applies to this class

- **Grades 6-8**

Students will develop a hands-on model of how human land use can be affected by natural hazards, especially how the power of water can change and shape the land. They will test their predictions about different types of weather events over time, as well as human impact and mitigation strategies. Students will take a wagon ride and hike to explore the forest, swamp, and marsh trails between Hard Bargain Farm and the Potomac River, connecting observations of the models made to the land and water they can see in real life. Students will investigate how the availability and quality of resources in an ecosystem will affect the populations of organisms that live there, as well as how humans have impacted the area, particularly in changes to water quality. They will also investigate weathering and how communities have created solutions like our Living Shore Line, the infrastructure that prevents the erosion of our shoreline, to protect the Earth's resources and environment. Students will hike to and from the Potomac River.

**Standards:** Supports NGSS MS-LS2-1, MS-LS2-4, MS-ESS2-2, MS-ESS2-4, MS-ESS3-3, and MS-ESS3-4.

**Recommended Activities** (*from Alice Ferguson Foundation's Resource Library*):

**Take Out the Trash | Water Cycle | Ways of a Watershed**

**Note:** An additional \$50 fee applies to this class