

Little Creek Elementary Programs:



FIRST GRADE: SECRETS OF THE PRAIRIE

Our student “scientists” hike the Prairie Loop trail, using their senses to explore Little Creek’s prairie habitat and observing its inhabitants and their unique relationships. At stops along the way students consider how the prairie habitat provides the basic needs of its animal inhabitants, including food, water, shelter (cover), and a place to raise young. Close observation of a milkweed plant leads to the discovery of how this plant is essential to the life and survival of one of the prairie’s most beautiful creatures, the monarch butterfly. Then, using hand lenses, students will investigate a much smaller habitat-- making a drawing of who lives in a small section of the grassy area in front of the classroom building. Returning to the classroom, students hear the read-aloud story, “Monarch Butterfly,” detailing the life cycle and relationship of the butterfly with the milkweed plant. Students then recall and sequence the four stages in the monarch’s life cycle, another reminder of their introduction to the “secrets of the prairie”.

THIRD GRADE: ECO-EXPLORATION - HIKING THE HABITATS

During this visit students have the opportunity to use observations and temperature measurement to compare and contrast a variety of Little Creek’s habitat types. The hike begins with a walk past the pastures and along the Prairie Loop Trail. Students are introduced to some of the plants common to the prairie ecosystem, comparing them to those found in the present day pasture habitat. Ways that the Native Americans and pioneer settlers benefited from this ecosystem are considered as well. Walking along a trail mowed through the tall grasses, students get an up-close look at some its inhabitants and experience the sights and sounds of the prairie all around them. As they hike from the prairie into the woodland, students can see, hear, and feel the contrasts that exist between these two very different ecosystems. Along the Nolte Trail, they investigate Missouri’s other major ecosystem, the deciduous forest. Bird songs, scat, leaves, and tracks provide clues about the inhabitants of this complex ecosystem. A stop at Little Creek’s Discovery Pond then provides a peek at an example of a freshwater habitat. While at the pond, students will use hand lenses to discover what tiny creatures live in the water, identifying some of them with a field guide and then drawing what they have observed.

Since the days of the pioneers, humans have altered habitats and planted trees, such as the apple, for food. At the pavilion, students imagine that they are pioneers who own a farm with 200 apple trees. They help make apple cider using an old cider press and are challenged to identify resources humans still use from both the prairie and forest ecosystems. They finish their day of eco-exploration by sampling apple cider, homemade apple butter, and dried apple chips.

FIFTH GRADE: ID THE TREES

This fall visit will give students the opportunity to experience how real scientists identify some of Missouri’s larger plants -- the trees. The visit begins with a hike to visit a variety trees whose leaves will later be identified back in the classroom. Students will observe similarities and differences that might be used as a basis for classifying and identifying each tree, and then will be asked to match the tree with its unique characteristics. Once back in the classroom, students will participate in several activities designed to introduce them to classification and the use of dichotomous keys for identification of living things. Then the class will be divided into groups and given the challenge of identifying the leaves of ten trees, all of which they’ve seen during their walk. Laminated leaf specimens will be given to each “team of scientists” for identification. Working cooperatively, the teams will use the dichotomous leaf key provided to identify each leaf, and record their results. When all teams have finished, students will find out how successful they were with the leaf identification and, as time allows, participate in several activities designed to further their understanding of the role of trees in Missouri habitats and some food chains that may be found there.

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SECOND GRADE: VISIT THE VERTEBRATES

Students will visit up close with some of the resident animals at Little Creek who have backbones, and so are called vertebrates. They will work as teams of scientists to document the shape, size, and outer covering for each critter, recording information about each. They will learn how to handle and/or touch each of them and will try to classify each animal into one of the five classes of vertebrates (fish, amphibian, reptile, bird, or mammal), based on the characteristics they observe. Additional artifacts will also be available to help students identify other characteristics of these five animal classification groups and determine how they are alike and different. Finally, in a Discovery Box activity, they will be challenged to identify some artifacts associated with each of the five vertebrate groups.

FOURTH GRADE: THE JOURNEY OF LEWIS & CLARK

Students will study a large map of the United States and test their knowledge of the Louisiana Purchase, the Native American tribes who lived there, the trail of the Lewis and Clark expedition, and its importance to Missouri history. Students will then use authentic Native American tools to create an artifact from flint while learning about the impact of the explorers on the culture and tools of the Native Americans. Students will also observe and, using a dichotomous key, identify animal tracks that the explorers might have seen along the way, logging the information in a “journal” just like Lewis and Clark did. Finally, they will examine and try to identify various items that the Corps of Discovery carried along with them for both survival and trade with native tribes.

KINDERGARTEN: DISCOVER LITTLE CREEK

This visit provides an orientation to Little Creek, both as an indoor and outdoor classroom. After exploring the question of how the winter season affects the lives of animals, students focus on some of Little Creek’s wild residents, the birds. Some live here year around, and some migrate south for the winter months, returning again in the spring. Using binoculars, students observe birds feeding at the Christopher Brown Nature Viewing Habitat, listen to the sounds/calls made by several of them, and make a bird feeder to take back to school or home. If weather permits, students also take a discovery hike around the Nature Area, experiencing the sights and sounds of the season along the way. The visit wouldn’t be complete without an introduction to Little Creek’s indoor resident animals. Always favorites with the children, they are moved to the classroom building from their usual home in the museum so students can experience them “up close and hands on “.

THIRD GRADE: ANIMAL ADAPTATIONS

During this visit students will discover how a variety of physical adaptations help animals survive in the habitat in which they live. In one series of activities, students will investigate how camouflage coloration helps some animals blend into their environment and avoid predators. They will also use a variety of tools that simulate the diversity of bird beaks to determine which beak works best for a variety of foods commonly eaten by birds. A close-up look at a bird feather and careful observation of a Little Creek resident dove will round out their study of how feathers, beaks, and feet are important survival tools for our avian friends.

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SIXTH GRADE: FUN WITH THE SUN

The Sun, either directly or indirectly, powers planet Earth. Whether coal or solar panels are used to generate electricity, the Sun was the original energy source. In this visit, students will be introduced to the six forms of energy, learn the difference between renewable and nonrenewable energy resources, investigate the visible spectrum of radiant light, and look at examples of how the Sun's energy is transformed as it stored, transferred, and used on our planet. In addition, students will create a "Coal Chain", tracing the path of this nonrenewable form of energy from formation millions of years ago to the light in our classroom today.

FIRST GRADE: DOWN ON THE FARM

One highlight will be a visit to the barn, garage, pasture, and chicken coop to see the farm animals born this spring, including the calf, piglet and lambs, along with the resident adult sheep, goat and chickens. We'll discuss their life cycles and how humans depend on them for food and clothing. We'll also point out the apiary in the barnyard (where the bees live).

Back in the classroom, we'll talk about the lives of bees and how honey is made, and then students will hold baby chicks while learning about chickens and eggs. Students will also make their own butter from cream. This will be followed by a "tasting" of their homemade butter on saltines and some honey made by the bees spread on graham crackers—a delicious way to end their visit "down on the farm"!

SECOND GRADE: WONDERFUL WOOL

In this visit, students learn how wool goes from the sheep to the fabric we use for clothing and other needs. The process begins with sheep shearing. Mr. Clayton Long shears the sheep annually on the pavilion. As he works, he explains what he is doing and answers student questions. Students also go to one of the elementary classrooms or the museum to observe the steps involved in turning wool into something useable, such as a sweater, shawl or place mat. Artisans demonstrate how to use hand carders and the drum carder, tools which prepare the wool for spinning. Next, students observe spinners using a spinning wheel to change loose wool into spun yarn. Students then use a loom to weave yarn into fabric by "throwing" the shuttle and using the beater bar. Finally, students will see a demonstration of how dogs are used to help in the task of herding sheep—a wonderful example of how people use domesticated animals "down on the farm".

KINDERGARTEN: CELEBRATE SPRING

This visit will focus on how the spring season affects the lives of the plants and animals found in both the wild and manmade habitats at Little Creek. Little Creek staff will accompany classes on a hike along one of the nature area trails. Students will learn the difference between wild and domesticated animals and look for examples along the way. Students will use their senses and simple tools to observe particular signs of spring in the habitats they visit and compare them to what they would observe during a winter walk. Also included is a visit to the barn, garage and pasture to see the farm animals, including the calf, piglet and lambs born this spring. The visit will also include some time in the classroom where students will hold baby chicks and participate in other activities that reinforce what they learned about the wild and domesticated animals found at Little Creek in the spring season.