

## **FIELD ECOLOGY AT BIG CREEK**

Thursdays, September 11-December 11 (no class Oct 16 and Nov 27; 12 weeks)

11:15am -12:45pm

Ages 11-14

**This introductory field ecology course engages students in the scientific study of local ecosystems through hands-on identification of regional flora and fauna, implementation of standardized field survey methods to assess wooded habitats at Big Creek Park, and analysis of abiotic factors such as water quality and soil composition. Be prepared to walk on wooded trails and be outside each class. Class will meet rain or shine unless it is lightning. A parent/guardian is required to remain onsite during these classes. All lab costs are included in the registration fee.**

Instructor: Ashley Blocker, BSc

Location: Back parking lot at Big Creek Park (1600 Old Alabama Rd, Roswell). There are bathroom facilities at this park entrance.

Full semester - \$275 OR \$25/lab (plus \$0.99 AH fee)

10% off sibling discount

Register for full semester or individual labs.

### **LAB SCHEDULE:**

#### **NATURE JOURNALING – Thursday, September 11**

Students learn to observe the natural world as they practice noticing details in plants, animals, and habitats, then record their findings with words, pictures and colors in their own nature journals.

#### **LEAF SHAPE STUDY – Thursday, September 18**

Plants exhibit a great diversity in leaf shape. Learn the words used to describe the shape of leaves, collect leaves to press and preserve, and start a nature.

#### **TREE IDENTIFICATION AND MEASUREMENT - Thursday, September 25**

Trees can be identified by leaf shape, bark characteristics, fruits and seeds and tree shape. Students identify trees and learn a standard method of measuring tree size to collect and record data on trees common to our local area.

#### **DECOMPOSERS - Thursday, October 2**

Learn about nutrient cycling within ecosystems as we investigate dead logs and decomposing leaves to find the organisms that help break down organic material.

### **SEARCH FOR VERTEBRATES - Thursday, October 9**

We do not always see them, but they are around. We look for and document evidence of vertebrates, including tracks and nests, listen for birds and learn about which critters come out at night.

### **ENTOMOLOGY - Thursday, October 23**

Insects are the largest group within the Animal Kingdom. This week, we search through different microenvironments and record the various insect species we can find and identify.

### **LITTER CRITTERS - Thursday, October 30**

Leaf litter is a great environment for many organisms, from insects and worms to fungi and seedlings. During this workshop, we explore the leaf litter and record the biodiversity within this community.

### **AUTUMN WOODS SURVEY - Thursday, November 6**

We document changes in the woods as summer turns to fall, discuss why leaves change color in autumn, and estimate how many trees are in Big Creek Park using a tree-counting method.

### **WHAT IS IN THE WATER? – Thursday, November 13**

This week, we collect water samples to see what macro- and microorganisms live in our local waterways. We may find snails, insect larvae, crustaceans, microscopic worms and more.

### **WATER CHEMISTRY - Thursday, November 20**

Learn about water chemistry as we study the chemical composition of the streams and ponds of Big Creek Park. We record characteristics such as temperature, pH and dissolved oxygen and learn why each is important.

### **MOSSES AND LICHENS – Thursday, December 4**

Even though they are green, they are not true plants. We learn about mosses, their anatomy, life cycle, and habitats, as well as investigate lichens and learn they are actually a symbiosis between fungi and algae.

### **DIRT AND ROCKS – Thursday, December 11**

Soils are the physical foundation for the woodland ecosystem. This week we classify and study soil and rock types, learn about water retention and investigate soil as a habitat for invertebrates.