



## **BACKYARD ECOLOGY**

Wednesdays, September 15-December 15 (no class Oct 13, Nov 24; 12 weeks)

11:00am-12:15pm

Ages 8-10

**Kids study the science of our own backyard as they explore relationships between biotic (living) and abiotic (non-living) factors that determine the diversity of organisms in our environment. When weather permits, we conduct ecological experiments at our outdoor classroom (we walk them to the fenced area at the end of our building).**

Instructor: Karen Berry, MSc

Location: Science Center (suite 5)

Course fee: \$220 OR \$20/lab

Early registration (10% off) through August 6

10% sibling discount beginning August 7

Register for full semester or individual labs.

### **LAB SCHEDULE:**

**Log Ecology** - Wednesday, September 15

Kids learn the about biotic and abiotic factors in the environment and make scientific observations about what they see, hear and feel while dissecting a log habitat.

**Insect Diversity** - Wednesday, September 22

We study the largest group of animals on the planet by learning the orders of the most common insects and conducting a survey to identify as many insects as we can find.

**Pollinator Science** - Wednesday, September 29

Today, we study the importance of insects in the pollination of flowers, how insects see flower petals differently than we do, investigate pollen under a microscope, and simulate the pollination process.

**Plant Adaptations** - Wednesday, October 6

Students explore plant diversity and adaptations plants have to survive in their environment as they conduct pinecone experiments and investigate moss.



### **Fungi and Composting** - Wednesday, October 20

Kids study the biology and diversity of fungi as they dissect a mushroom, investigate how they grow as decomposers and learn the basics of composting with old pumpkins.

### **Dirt Science** - Wednesday, October 27

We explore the importance of different soils in our ecosystem and how dirt acts as a filter to keep water clean.

### **Light and Temperature** - Wednesday, November 3

Kids learn how the amount of sunlight and temperature influence the communities that can survive in an environment as we use scientific tools to investigate these abiotic factors.

### **Camouflage** - Wednesday, November 10

We investigate how protective coloring can help animals hide from predators and prey, and then send the kids out into the yard to conduct a camouflage toothpick experiment.

### **Bird Beak Adaptations** - Wednesday, November 17

We study advantages and disadvantages of different bird beak shapes as we forage for different types of bird food, and learn why not all bird beaks are the same.

### **Owl Food Web** - Wednesday, December 1

Kids learn about food webs and owl pellets as they dissect their own owl pellet to see what their owl ate.

### **Pond Ecology** - Wednesday, December 8

This week, we use microscopes to investigate the diversity of microscopic plants, animals and protozoans that inhabit local pond ecosystems.

### **Water Cycle and Pollution** - Wednesday, December 15

Students play a water cycle game to learn how water moves through the environment and conduct an experiment to see how pollutants spread through a landscape.