



# Educational Group Program Guide





# Scheduling a Program

Free programs are offered **Tuesday - Saturday from 9:30 a.m. - 4:30 p.m.** and **Sunday from noon - 4:30 p.m.** Other dates and times may be available with adequate, advance notice. Reservations are required for naturalist-led programming. We recommend reserving your program at least six weeks ahead, particularly in the spring and fall.

To schedule a program, call **440-887-1968** or email **wsc@clevelandmetroparks.com** with the following information:

1. Program choice(s)
2. Preferred and alternate dates and times.
3. Group name, address, phone number, email and contact person.
4. Grade/age level and number of people in your group (10 person minimum).
5. Any special needs of the group.

All programs are intended to have an outdoor component, weather permitting. Please dress for the weather.

## School Programs

- School programs are designed to be 90-minutes in length. For full-day field trips, you will select two 90-minute programs and will have a 30-minute lunch. If you are unable to join us for a full day, we can customize our programming to fit your schedule.
- Programs are written in accordance with Ohio state and **STEM** academic standards and are free of charge.
- Bus vouchers may be available upon request, please contact us for details. If you are unable to visit the Watershed Stewardship Center, a naturalist can visit your Cuyahoga County school. Many of our programs can be modified to fit your classroom.
- Looking for something that is not offered in this guide? Contact us to discuss custom programming options.



Cleveland Metroparks is committed to providing quality educational and recreational opportunities to the people of Greater Cleveland. If you need special assistance to attend a program or visit the Watershed Stewardship Center, please call (440)887-1968.

## \*Northeast Ohio Regional Sewer District Education Fee Credit

Our **Stormwater & Sustainable Development Program** (pgs. 3, 4 & 5) is certified to meet the requirements of the **NEORS D Education Fee Credit for Grades 5-12**. Schools interested in receiving this credit must apply through **NEORS D**.



# High School & College

**Stream Morphology** - Students will complete a cross-sectional analysis of West Creek in order to understand how energy flows in a stream system. We will discuss how streams are formed and the processes that alter them.

**Bank Erosion Hazard Index** - The Bank Erosion Hazard Index (BEHI) is a tool used by scientists to determine stream bank health. Students will learn why this tool is important and conduct their own bank analysis in the field.

**Water Quality Monitoring** - What's up with West Creek? We will wade into the creek to analyze water chemistry and sample for macroinvertebrates in this hands-on, field-oriented program.

**Habitat Assessment** - Examine how stream habitats function and the components of a healthy stream habitat. This program includes a hands-on introduction to how scientists assess headwater stream habitat.

## **Stormwater & Sustainable Development**\* (see pg. 2)

Delve deeper into how we treat our wastewater, and how stormwater is complicating the process and threatening our fresh water resources. Learn about what is being done in Northeast Ohio to deal with our stormwater issues. This program includes a tour of our facilities' stormwater control measures.





## 7th & 8th Grades

**Natural & Urban Water Cycles** - Water plays a vital role in sustaining life on Earth. Discover the properties of water that make it essential and learn more about the role of water in our ecosystems. Delve a little deeper into the water cycle as we discuss how urbanization impacts the natural water cycle.

**Stormwater & Sustainable Development** -\*(see pg. 2)

How does urban development and increases in impervious surfaces affect our waterways? What does sustainable development mean and what are some examples? Uncover the answers to these questions and more in this signature indoor-outdoor program.

**Aquatic Ecosystems** - Understanding the characteristics of our local freshwater systems is essential to comprehending their importance. See streams and wetlands up close and learn how they function as ecosystems.

**Erosion & Deposition by Water** - Water is the most powerful agent of physical weathering. Examine how water changes the landscape by both erosion and deposition.

**Functioning Forests** - The forest is a living, breathing ecosystem that provides us with services that we use in our everyday lives. Take a hike through West Creek Reservation to learn how trees regulate our climate, energize our lives and protect our watershed.



## 5th & 6th Grades

**Water Matters** - The dramatic physical and chemical changes between states of matter are explored through the miracle substance of water. Students compare the natural and urban water cycles and how different states of water are embodied in them. The fact that water is a finite resource is stressed.

**Wetland Biodiversity** - Discover what's living in the wetlands at West Creek. We will discuss the foundations of ecology and biodiversity in this hands-on program.

**Animal Adaptations and Roles in Ecosystems** - What are the roles of producers, consumers, and decomposers in a stream ecosystem? Collect critters from West Creek to learn about their jobs and what they tell us about the health of our stream. This program can also be adapted to examine a meadow habitat.

**Stormwater & Sustainable Development** - \*(see pg. 2)

Where does the water go when it rains? What is a watershed and how does what's happening on the Earth's surface impact water quality? This program introduces students to the impacts of people and stormwater on the land, as well as sustainable development practices.

**Functioning Forests** - The forest is home to singing birds, bouncing squirrels and web-spinning spiders, but the forest is much more than just wildlife habitat. Take a hike through West Creek Reservation to learn how trees regulate our climate, energize our lives and protect our watershed.



A group of scouts in a green shirt and brown pants are working in a wetland area. They are using long poles to interact with the water and vegetation. One scout is bent over, possibly collecting a sample. The background shows tall grasses and a body of water.

# Scout Programs

Our scout programs are designed with scout advancement in mind. Each of the following programs are specific to a certain achievement, but some requirements call for scouts to work beyond these programs to successfully complete the achievement. Certified merit badge counselors will present all merit badge programs. Fees may apply to scouting programs.

Custom programming is available. Contact us for programs specific to certain Webelos Activity Patches, Cub Scout Belt Loops, Girl Scout Insignia, and Boy Scout Merit Badges.

Scout programs are offered regularly and are listed in the monthly ***Emerald Necklace Newsletter*** and online at [clevelandmetroparks.com](http://clevelandmetroparks.com)

**WOW! Wonders of Water** - Brownies explore the Wonders of Water, learning about the water cycle and our water resources. The girls will pledge to LOVE water, SAVE water, and SHARE water, setting them up to earn their WOW! Award.

**Weather Belt Loop** - Cub Scouts will learn all about the water cycle and make a simple, portable “weather station” to use at home.

**Soil & Water Conservation Merit Badge** - Boy Scouts will be well on their way to earning this merit badge after this engaging program. We will examine soil types, soil erosion, conservation practices, watersheds, water pollution, and the hydrologic cycle.





# Citizen Science

Citizen Science is the involvement of the public in the collection and analysis of scientific data. The Watershed Stewardship Center offers a number of opportunities to become involved in Citizen Science projects at West Creek Reservation and throughout Cleveland Metroparks.

**FrogWatch USA** - A national project from the Association of Zoos and Aquariums that provides an opportunity to learn about wetlands and report data on the calls of local frogs and toads. Volunteers collect data during evenings from March through August.

**NestWatch** - Administered by the Cornell Lab of Ornithology, this project monitors bird nests and bird nesting boxes from March through September. This project helps researchers understand how birds respond to changing landscapes and climate.

**Project FeederWatch** - A citizen science project from the Cornell Lab of Ornithology that tracks what is happening with feeder birds across the country from November through April. Enjoy the experience of bird watching while contributing to real science.

**Butterfly Monitoring** - A citizen science project from The Ohio Lepidopterists that involves the long-term monitoring of butterflies in Ohio from April through October. Since 1995, citizens have been contributing valuable data to help protect our pollinators from habitat destruction and pesticide use.





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