Environmental Education

Opportunities for Schools and Youth Groups

Field trip transportation funding available (see page 4)
Richard Louv’s book *Last Child in the Woods* has launched a nationwide revolution - a war in which the weapons are simple (trees, tadpoles, soil, sky, wetlands, woods) but the goal is monumental: reconnecting children with nature.

Studies verify that schools using outdoor classrooms and other forms of experimental education enjoy significant student gains in cognitive skills, problem solving and motivation to learn.

With a remarkable variety of natural habitats, wildlife diversity and a skilled staff of both naturalists and trained volunteers, Geauga Park District offers ideal programs and sites for outdoor learning experiences to enhance or support your school curriculum or youth programming. These educational opportunities are designed to further academic goals while nurturing a sense of wonder and stewardship for the earth.

All introduce or reinforce Grade Level Indicators in the Ohio Academic Content Standards for Science. For detailed descriptions of these, visit www.ode.state.oh.us.

### Program Options at a Glance

#### IN PARK FIELD TRIPS

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#### OUTREACH PROGRAMS AT YOUR SCHOOL

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#### NATURE SCOPES

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Don’t see it in the list? Call to discuss special requests with our naturalist staff. Observatory Park programs in astronomy/meteorology for elementary grades are under development.

### STANDARDS KEY

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
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<td>Earth &amp; Space Science</td>
</tr>
<tr>
<td>LS</td>
<td>Life Science</td>
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<tr>
<td>PS</td>
<td>Physical Science</td>
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<tr>
<td>SS</td>
<td>Social Studies</td>
</tr>
</tbody>
</table>

| F     | Fall               |
| W     | Winter             |
| Sp    | Spring             |
Scheduling

- Call Geauga Park District at 440-279-0894 during weekday business hours (8:30 am to 4:30 pm) to schedule your field trip or visiting naturalist program.

- Plan ahead. A minimum of 3 weeks’ advance notice is required for reservations, but popular months (October, April & May) fill early. Please submit requests for Foundation field trip funding (see page 4) at least one month in advance.

- Programs are offered during daytime hours Tuesday through Thursday with limited Monday and Friday availability. Each class/group is limited to a maximum of 4 programs per year.

- Group size is generally limited to 60 but may vary with staff availability.

- Preference is given to Geauga County schools/groups, which attend at no charge. Outside groups are invited to inquire about availability and fees for field trips. (Visiting naturalist programs are reserved for those in Geauga County only.)

- When calling for reservations, be prepared with:
  - Program Title/Focus
  - Date/Time (& Alternatives)
  - Grade and # of Students
  - Name(s) of Participating Teachers
  - School Address and Phone #
  - Special Arrangements

Notes

- TEACHER PACKETS will be emailed for life science outdoor programs. Packets include:
  - Program confirmation
  - Program flyer with description, pre- & post-trip activity ideas, objectives and guidelines for your visit.
  - Academic Standards

- Many programs can be modified to accommodate SPECIAL NEEDS and abilities. Please bring these to our attention when scheduling.

- SPECIAL REQUESTS: If our suggested list doesn’t match your educational objectives, call to discuss modifications or special curriculum needs that can be addressed with sufficient notice.

- SELF-GUIDED groups are welcome. Please contact the Park Office in advance to avoid conflict with other park activities.

- COLLECTING is not allowed. However, in special situations a permit can be issued if applied for at least 2 weeks prior to your program date.

- Reservable PICNIC SHELTERS are available in most parks. Please inquire when scheduling your program.

- Observatory Park in Montville Township now features educational adventures from the ground to the galaxies geared especially for grades 6-8. Teachers in grades 1-5 are encouraged to call for information on planetarium shows and other astronomy based programs currently under development.

- These programs meet new common core standards.
Transportation Grant Funding

Through the Foundation for Geauga Parks, a 501(c)3 non-profit charitable organization, transportation funding is available to in-county schools for field trips to Geauga Park District programs.

After scheduling your field trip through Geauga Park District you can request a Transportation Grant application by contacting Cindi Boehnlein, Administrative Assistant for the Foundation for Geauga Parks, by email to assistant@foundationforgeaugaparks.org or by phone at 440-564-1048. Transportation Grants are limited to one field trip per school per grade level, on an annual basis.

The Geauga Park District appreciates the Foundation for Geauga Parks for its support of our Educational Programs. The 2016-17 school year saw more than 1,000 students enjoying the beauty of the Park systems including educational programs as Nature Scopes, Wonders of Winter, Maple Sugaring, and Star Life Cycles at Observatory Park.

Many programs can be conducted at more than one location. A list of parks follows each program description.

- **BLR** - Beartown Lakes Reservation
- **BBMP** - Bessie Benner Metzenbaum Park
- **BC** - Big Creek Park
- **CP** - Chickagami Park
- **ERP** - Eldon Russell Park
- **FM** - Frohring Meadows
- **HP** - Headwaters Park
- **OP** - Observatory Park
- **TR** - The Rookery
- **SP** - Sunnybrook Preserve
- **SCR** - Swine Creek Reservation
- **WCBP** - Walter C. Best Preserve
- **TWW** - The West Woods

(See map on back cover for reference.)
In Park Field Trips

SIGNS OF THE SEASONS WALKS

Exploring Autumn

Recommended for PreK – 3rd grade

Using a variety of senses to experience the environment around them, students explore fall color, seed dispersal, fungus, insect activity, migration and how animals prepare for winter. Incorporates science inquiry and applications

Meets the following science standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>ESS</th>
<th>LS</th>
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<tbody>
<tr>
<td>K</td>
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<td>1st</td>
<td>ESS, LS</td>
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<td>2nd</td>
<td>LS</td>
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<tr>
<td>3rd</td>
<td>LS</td>
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</tbody>
</table>

Sept. – Nov.

Length: 1 hr

Locations: BLR, BBMP, BC, FM, SP, SCR, TR, TWW

The senses enliven learning as students explore annual episodes of plant and animal life cycles and weather conditions that characterize the seasons.
Wonders of Winter
Recommended for PreK – 3rd grade

Students investigate animal tracks and signs, plant and animal survival strategies, and the nature of snow and ice. An indoor component can be added for severe weather conditions.

Incorporates science inquiry and applications

Meets the following science standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standard</th>
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</thead>
<tbody>
<tr>
<td>K</td>
<td>ESS, LS</td>
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<tr>
<td>1st</td>
<td>ESS, LS</td>
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<tr>
<td>2nd</td>
<td>LS, ESS</td>
</tr>
<tr>
<td>3rd</td>
<td>LS</td>
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Dec. - Feb.

Length: 1 hr

Locations: BLR, BBMP, BC, FM, SP, SCR, TR, TWW

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Spring Things
Recommended for PreK – 3rd grade

Through the use of their senses, students explore the reappearance and renewal of plant and animal life cycles including tree budding, wildflowers, reptile and amphibian activity, bird migration and nesting behavior.

Incorporates science inquiry and applications

Meets the following science standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standard</th>
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</thead>
<tbody>
<tr>
<td>K</td>
<td>ESS, LS</td>
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<tr>
<td>1st</td>
<td>ESS, LS</td>
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<td>2nd</td>
<td>LS</td>
</tr>
<tr>
<td>3rd</td>
<td>LS</td>
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</table>

April - early June

Length: 1 hr

Locations: BLR, BBMP, BC, FM, SP, SCR, TR, TWW

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Pondlife Primer
Recommended for Pre-K – 2nd grade

This pond program is adapted to the younger student. Plant and animal life zones, which characterize the pond as wildlife habitat, are defined. Students use strainers to collect, classify and examine the “mini-monsters” of the pond. An amusing dress-up demonstration highlights special adaptations aquatic animals use for living in water.

Incorporates science inquiry and applications

Meets the following science standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standard</th>
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<tbody>
<tr>
<td>K</td>
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<tr>
<td>1st</td>
<td>LS</td>
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<tr>
<td>2nd</td>
<td>LS</td>
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April-November

Length: 1.5 hrs

Locations: BC, SCR, TWW

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Peering into the Pond
Recommended for 3rd grade and up

After the pond’s plant and animal life zones are defined, students use strainers to collect, classify and examine a variety of small pond creatures. A video magnifier displays the special adaptations insects have for survival in an aquatic environment. Then students voyage through the micro-organism menagerie found in a drop of pond water. The ecological concept of energy flow is related using food pyramid models that stress the fundamental role of micro-organisms in the pond community.

Incorporates science inquiry and applications

Meets the following science standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standard</th>
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<tbody>
<tr>
<td>3rd</td>
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<td>4th</td>
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<tr>
<td>5th</td>
<td>LS</td>
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<tr>
<td>7th</td>
<td>LS</td>
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</table>

April-November

Length: 2 hrs

Locations: BC, SCR, TWW

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• Funding is available for Geauga Park District field trips! See page 4 and visit www.geaugaparkdistrict.org for an application.
Habitat Hide & Seek
Recommended for K - 2nd grade

The basic needs of food, water, shelter, space and air are emphasized as students compare the meadow, forest and wetland ecosystems as habitats for a variety of insects and small invertebrates. As they roll logs, sweep nets, shake trees, and dip strainers, secret hiding places are revealed. Their discoveries are used to complete a large habitat venn diagram to emphasize biodiversity, adaptations, survival needs and the organism’s interactions with their environment.

Incorporates science inquiry and applications

Meets the following science standards:

- K  LS
- 1st  LS
- 2nd  LS

May - October
Length: 2 hrs
Locations: BC, SCR, TR, TWW

Geauga Geology Rocks
Recommended for 3rd grade and up

Utilizing a stream table, hands-on rock samples and geology exhibits, this program investigates the sedimentary rock cycle’s role in the formation of our local bedrock and Geauga’s hilly topography and, as evidence of past life forms: regional fossils. Indoor activities are followed by a hike to Ansel’s Cave to view geologic and human features of a major bedrock outcropping. This program addresses standards relating to fossils, geology, and earth resources. Maximum 50-60 students (2 classes) at a time.

Incorporates science inquiry and applications

Meets the following science standards:

- 3rd  ESS
- 4th  ESS, LS
- 6th  ESS
- 8th  ESS, LS

Year-round
Length: 2 -2 ½ hrs
Location: TWW

Funding is available for Geauga Park District field trips! See page 4 and visit www.geaugaparkdistrict.org for an application.
**Woodland Ecology**

**Recommended for 3rd grade and up**

The forest is presented as a multi-layered dwelling place with niches for a diversity of wildlife residents that are introduced by sight, sound, and sign. Mysterious boxes contain wildlife cards used to assemble forest food webs that define plant and animal inter-relationships and flow of sun energy through the forest ecosystem. This outdoor program addresses the standards relating to plant & animal survival observations, photosynthesis, energy flow, food webs and nutrient cycles.

Incorporates science inquiry and applications

Meets the following science standards:

- **3rd LS**
- **5th LS**
- **7th LS**

**April - Nov.**

**Length:** 2 hrs

**Locations:** BC, BLR, SCR, TR, TWW

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**Wetlands & Watersheds**

**3rd grade and up**

Where does water come from and where does it go? After an introduction to the water cycle and watersheds of Geauga County utilizing the Nature Center exhibits, students head outdoors to explore several types of wetland habitats with hands-on activities along the trail. A visit to the green roof building and other green features relates environmentally friendly technology. An Enviroscape model graphically demonstrates sources of pollution in wetlands and streams. Maximum 50-60 students (2 classes) at a time.

Incorporates science inquiry and applications

Meets the following science standards:

- **3rd ESS**
- **4th ESS, LS**
- **6th ESS**
- **8th ESS, LS**

**April - Nov.**

**Length:** 2 hrs

**Location:** TWW
Monarchs & More

**Recommended for 1st grade and up**

Participate in Monarch Watch’s international study of the monarch butterfly’s transcontinental migration to Mexico. A review of the monarch’s life cycle precedes a venture into the meadow to net butterflies for tagging and to make other insect discoveries. The Monarch Migration Game dramatizes the harrowing nature of this amazing journey. Success lies in your ability to schedule your trip for September.

Incorporates science inquiry and applications

Meets the following science standards:

- 1st LS
- 3rd LS
- 4th LS
- 5th LS

**Mid-September**

**Length:** 1½ hrs, (2 classes - 2 hr)

**Location:** SCR, FM

Maple Sugaring

**Recommended for all ages (specifically K-5th)**

Ancient Woodland Indian, pioneer and modern methods of maple sugar and syrup making are demonstrated through hands-on activities as a long-standing relationship between people and forests. Students provide “horsepower” as they pull a sled from tree to tree, emptying small buckets of sap into a tank. Tour the sugarhouse and sample syrup during this award-winning program. Incorporates science inquiry and applications.

Meets the following science and social studies standards:

- **K** ESS, LS, PS, SS-History, Geography, Economics
- **1st** ESS, LS, PS, SS-History, Geography, Economics
- **2nd** ESS, LS, PS, SS-History, Geography, Economics
- **3rd** ESS, LS, PS, SS-History, Geography, Economics
- **4th** LS, SS-History, Geography
- **5th** LS, SS-Geography

**March**

**Length:** 1½ hours

**Locations:** SCR

• Funding is available for Geauga Park District field trips! See page 4 and visit www.geaugaparkdistrict.org for an application. •
GEOLOGY

Soil Science

Recommended for 5th grade and up

Working in groups, students use a GPS unit to locate a sample site where they will measure soil temperature, pH, and percolation rate. They will then use a soil bore to get a soil profile and take a soil sample, which they will test for texture and composition. This program addresses the standards relating to rocks, minerals, soil and the physical earth.

Incorporates science inquiry and applications

Meets the following science standards:

6th ESS
8th ESS

April - Oct.

Length: 45 min.

Location: OP
**Geologic Timeline**

**Recommended for 6th grade and up**

Students discover how Earth’s history is broken into major units of time by laying out a large geologic timeline. Using math skills, they calculate scale needed, mark periods with flags and then place real and replica fossils in the correct location on a group walk along the time line. This program addresses the standards relating to rocks, minerals, soil and the physical earth.

Incorporates science inquiry and applications

Meets the following science standards:

- 6th ESS
- 8th ESS

April - Oct.

Length: 45 min.

Location: OP

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**Solar Energy**

**Recommended for 5th grade and up**

Students explore the sun as a source of energy for heat and electricity by discovering how solar cells operate using various solar powered devises and experimenting with a solar oven and solar reflector for heating water and cooking. On cloudy days, experiments with alternative light sources will be substituted. This program addresses the standards relating to cycles and patterns in the solar system, light, sound and motion, and conservation of mass and energy.

Incorporates science inquiry and applications

Meets the following science standards:

- 5th ESS, PS
- 7th PS

April - Oct.

Length: 45 min.

Location: OP

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**The Sun: One Hot Topic**

**Recommended for 5th grade and up**

Students explore the sun’s surface by using various types of solar scopes to look for sun spots, and experiment with solar absorption and reflection using a solar bag, solar shower and the colors black & white. On cloudy days, students experiment with UV beads to determine if the sun still gets through the clouds. This program addresses the standards relating to cycles and patterns in the solar system, light, sound and motion, matter and motion and conservation of mass and energy.

Incorporates science inquiry and applications

Meets the following science standards:

- 5th ESS, PS
- 6th PS
- 7th PS

April - Oct.

Length: 45 min.

Location: OP

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*Funding is available for Geauga Park District field trips! See page 4 and visit www.geaugaparkdistrict.org for an application.*
Weather Station & Forecasting

Recommended for 6th grade and up

Working in small groups, students use a variety of instruments (rain gauge, barometer, anemometer, hygrometer, thermometer, sling psychrometer) to collect weather data (cloud type, temperature, wind speed, relative humidity & dew point, precipitation, air pressure). Then they compare results with recordings taken by an on-site weather station. Information is then used to construct a station model. Students can then enter data on GLOBE program back at school if desired. This program addresses the standards relating to cycles and patterns of the Earth and Moon.

Incorporates science inquiry and applications

Meets the following science standards:

7th ESS
April - Oct.
Length: 45 min.
Location: OP

The Human Orrery

Recommended for 4th grade and up

An “orrery” is a mechanical model showing the movements of the solar system. A “human orrery” lets you jump in on the action! Groups get to participate in a planetary pageant, walking out the orbits of the six inner planets on an outdoor path. Topics covered include: orbit shapes, planetary motion, differences in orbit speeds, motion of the planets against the constellations, eclipses, and retrograde motion. Please note: this is an outdoor-only program. This program addresses the standards relating to cycles and patterns in the solar system, matter and motion, cycles and patterns of the Earth and Moon, and forces and motion.

Incorporates science inquiry and applications

Meets the following science standards:

5th ESS
6th PS
7th ESS
8th PS
April - Oct.
Length: 45 min.
Location: OP
**Planetary Distance Inquiry**

**Recommended for 5th grade and up**

Working in groups, students are given minimal information and must use the inquiry process to determine what data they need to calculate distance and lay out a large scale solar system. Schedule a double session to have time to walk the mile long planetary trail to discover fun facts about weight, composition, and temperature of the planets and other celestial bodies in the solar system (asteroids and dwarf planets). This program addresses the standards relating to cycles and patterns in the solar system, and cycles and patterns of the Earth and Moon.

Incorporates science inquiry and applications

Meets the following science standards:

- 5th ESS
- 7th ESS

Year-round

Length: 45 min

Location: OP

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**Magnification & Telescopes**

**Recommended for 4th grade & up**

Students compare magnification with different instruments including naked eye, binoculars, spotting scope, and telescope. Students then compare images of the moon taken with different instruments, compare refracting and reflecting telescopes, visit the large observatory telescope then view Hubble telescope pictures projected on the dome. This program addresses standards relating to light, sound and motion.

Incorporates science inquiry and applications

Meets the following science standards:

- 5th PS
- 7th ESS

Year-round

Length: 45 min.

Location: OP

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**Star Life Cycle**

**Recommended for 5th grade and up**

Students learn how different stars in the sky are actually phases in the life cycle of stars in an interactive simulation of the life cycle. Students, portraying different star types, then plot out stars by temperature and magnitude to see how they fit in the main sequence on a life-size H-R diagram. This program addresses the standards relating to cycles and patterns in the solar system, light sound and motion, matter and motion, conservation of mass and energy, and forces and motion.

Incorporates science inquiry and applications

Meets the following science standards:

- 5th ESS, PS
- 6th PS
- 7th PS
- 8th PS

Year-round

Length: 45 min.

Location: OP

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**Planetarium**

**Recommended for All Ages**

Students learn about constellations and star lore in the planetarium learning how different cultures viewed the stars. Students see examples of different stars in the life cycle of the star, take a tour of the solar system, and learn what to search for in the sky. Planetarium presentations can easily be customized to match the concepts you’d like your students to learn. This program addresses the standards relating to cycles and patterns in the solar system, light, sound and motion, and cycles and patterns of the Earth and Moon.

Meets the following science standards:

- 5th ESS, PS
- 7th ESS

Year–round

Length: 45 min.

Location: OP
Unable to schedule a field trip?
Geauga Park District has environmental education programs that can be brought to your facility to address academic content standards.

Programs may be scheduled on Tuesdays, Wednesdays or Thursdays. They are limited to afternoons during May, September and October.

The naturalist staff also welcomes inquiries and is willing to discuss alternate topics to better suit your curriculum needs.

Outreach Programs

at your school

Amphibian Awakening

Recommended for K – 3rd grades
Warm evening rains draw salamanders, frogs and toads out of hibernation to begin their annual courtship. Through a PowerPoint presentation, calls and live specimens, students discover the habits and habitats, adaptations and life cycles of these captivating creatures.

Incorporates science inquiry

Meets the following science standards:
K   LS
1st  LS
2nd  LS
3rd  LS

March - June
Length: 45 min.

Feathered Friends

Recommended for Kindergarten and up
Feathers, nests, and other avian artifacts are shared to discover how different types of birds have different adaptations to meet their physical needs. Program includes a hands on activity demonstrating the various types of foods that birds eat.

Incorporates science inquiry

Meets the following science standards:
K   LS
1st  LS

Year Round
Length: 45min-1 hr

Programs & Standards available for high school upon request.
**Geauga’s History: Written in Rock**

**Recommended for 3rd – 6th grades**

Using a felt board, the morphing of Geauga’s “hill & dale” landscape is related as the result of deposition of marine sediments, erosion of sedimentary rock layers topped off with glacial deposits as the parent material of our local soils. The various stages of landscape development are represented with a hands-on sharing of sedimentary, igneous and metamorphic rock samples and fossils from Northeast Ohio’s bedrock stratigraphy or local geologic resources. This program addresses science standards relating to fossils, geology, earth resources and rock samples.

Incorporates science inquiry

Meets the following science standards:

- 3rd ESS
- 4th ESS, LS
- 6th ESS
- 8th ESS, LS

**Year Round**

Length: 45 min.

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**Geauga’s Wildlife: Past & Present**

**Recommended for 1st – 6th grades**

This program demonstrates how human conversions of the landscape from wilderness to farmland to partially reforested suburbia over the past 200 years have deeply affected the quantity and quality of habitat and thus determine the diversity and abundance of wildlife. A morphing map, timeline and animal figures provide an interactive investigation of Ohio’s changing wildlife populations. This program addresses standards relating to changes in landscape over time, history, geography and economics.

Incorporates science inquiry

Meets the following science and social studies standards:

- 1st SS
- 2nd LS, SS
- 3rd SS
- 4th LS, SS
- 5th SS
- 6th SS

**Year Round**

Length: 1 hr.

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**Portable Planetarium Programs**

NEW!

Our portable planetarium features a digital projection system inside an inflatable dome. The dome will seat ~30 students and requires a space that is 12 ft. high and 25 ft. by 25 ft. We offer a wide variety of topics including “The Sky Tonight,” “Solar System Tour,” “Constellation Stories,” “Cycles and Seasons,” “The Sun and Stars,” “Birth of the Earth,” “Native American Sky Stories,” “Ancient Skies,” “The Copernican Revolution,” “Shakespeare in the Sky.” Contact us for full program descriptions. Don’t see what you need here? No problem! We’re happy to prepare a custom presentation on a theme that you request. Just give us 30 days’ advance notice to prepare.

Meets the following science standards:

- ES, SS for most grades

**Year Round**

Length: 30 min.
OUTREACH PROGRAMS (CONTINUED)

Ohio’s Ice Age Animals
Recommended for 2nd grade and up
An introduction to the amazing animals of Ice Age Ohio. Highlighting the large megafauna, this program defines extinct vs. extant animals relating to the extinction wave that took place at the end of our last Ice Age. Megafauna are introduced in a matching game as to their ecological roles as plant-eaters or predators. Glacial landforms that have preserved Ice Age animal remains in the Great Lakes region are related, including mastodons in Geauga County, and under what circumstances they have been discovered. This program features a powerpoint presentation and hands-on pass-arounds. Incorporates science inquiry and applications.

Incorporates science inquiry and applications

Meets the following science standards:

- 2nd LS
- 4th ESS, LS
- 8th LS

Year-round

Length: 1 hr

Living History: John Muir
Recommended for 4th grade and up
John Muir (1838-1914) was America’s most famous and influential naturalist and conservationist and has been called “The Father of our National Parks.” As a wilderness explorer, he is renowned for his exciting outdoor adventures in search of nature’s beauty. His writings contributed greatly to the creation of Yosemite, Sequoia, Mount Rainier, Petrified Forest, and Grand Canyon National Parks.

The famous naturalist visits from the past to tell his story and share some of his more memorable “hands-on” experiences with nature! His life is an important lesson to students as to the great things that just one person can do to make positive, social and environmental change!

Meets the following academic standards:

- 4th SS
- 5th SS
- 8th SS
- 9th - 12th SS

Length: 45 minutes

Earthquakes in Ohio
Recommended for 8th grade and up
Use data from the Ohio Seismic Network to explore what’s happening underground in Ohio. Students will explore earthquake magnitudes, review wave concepts, learn how to interpret seismograms, and locate the epicenter of an Ohio earthquake. Includes a teacher packet with additional activities relating to the history of earthquakes in Ohio, and information on how to access seismic information online.

Meets the following science standards:

- 8th ESS

Length: 1 hr
**Insect Extravaganza**

All ages. Recommended for K – 3rd grades

By land, sea and air, insects are everywhere! Using props and costume discover the world of insects and other “bugs” all around us. Learn which ones we can’t live without and about some of their unusual body parts and varying life cycles.

Incorporates science inquiry

Meets the following academic standards:

K  LS
1st  LS
2nd  LS
3rd  LS
5th  LS

Year Round
Length: 45 min

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**Scat, Tracks & Other Mammal Facts**

All ages. Recommended for grades K – 3rd grades

What mammals are lurking in your backyard? Many leave tell-tale signs of their presence. Discover the diversity of mammals that call Geauga County home and what makes one mammal different from others, and test your knowledge of animal signs by taking the “scat” quiz.

Incorporates science inquiry

Meets the following academic standards:

K  LS
3rd  LS

Year Round
Length: 45 min

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**Monarchs on the Move**

All ages Recommended for K – 5th grades

Unique among butterflies, the monarch is one of the few insects that migrate south for the winter. This illustrated program shows about the monarch butterfly’s life cycle and how tagging them helps scientists learn more about their amazing migration to Mexico. A tagging demonstration follows if live specimens are available.

Incorporates science inquiry

Meets the following academic standards:

K  LS
1st  LS
2nd  LS
3rd  LS
4th  LS
5th  LS

Sept.
Length: 45 min
**Wildlife Detectives**

Recommended for K – 3rd grades

A fascinating program which introduces various types of wildlife evidence (tracks, droppings, nests, shed and molted material and meal remains) as clues that reveal animal presence and activity. This program includes an illustrated presentation, and a matching activity to match animals with the real life evidence that was left behind.

Incorporates science inquiry
Meets the following science standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Science Area</th>
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<tbody>
<tr>
<td>K</td>
<td>LS</td>
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<tr>
<td>3rd</td>
<td>LS</td>
</tr>
</tbody>
</table>

Year Round
Length: 45min-1 hr

**Weather Wizardry**

Recommended for K – 2nd grades

Weather is the one element in nature guaranteed to be seen, felt and sensed no matter what time of year it is! A trunk of tricks helps reveal the secrets of clouds, precipitation, severe weather and more through fun, interactive experiments and games that introduce weather concepts using simple science tools and techniques.

Incorporates science inquiry
Meets the following academic standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
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<tr>
<td>1st</td>
<td>ESS</td>
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<tr>
<td>2nd</td>
<td>ESS</td>
</tr>
</tbody>
</table>

Year Round
Length: 45 minutes

**Maple Sugaring Time**

All Ages Recommended for K – 5th grades

We will take you through the process of how the sweet sap of maple trees is transformed into the REAL maple syrup that we love to put on pancakes. We’ll look back on how Native Americans and European settlers made maple sugar and we’ll trace the evolution of this delicious process through time up to current practices. Finally, you’ll get to taste a sample some of Geauga Park District’s own maple syrup!

Incorporates science inquiry
Meets the following science & social studies standards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Science Area</th>
<th>Social Studies Area</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5th</td>
<td>LS, SS</td>
<td>SS</td>
</tr>
</tbody>
</table>

March
Length: 45 min
Geauga Park District’s Nature Scopes environmental education program was established in 2003 in response to research which shows that repeated close encounters with nature have greater impact on student learning than classroom discussion or viewing photos in textbooks.

Call 440-279-0880 for more information or to request a Nature Scopes application form. Requests must be received by May 1 to be included in programming for the next school year.

“I think that the Nature Scopes program was really neat! I didn’t really know how to use binoculars except that you look through them and turn the knob to focus. Now I know the three L’s: Look, Lock and Lift. I never knew that they could be used as a microscope, either.”

Jacob, St. Helen’s School

Nature Scopes

Registered Geauga County 5th-grade classes participate in six interactive sessions, five of which involve outdoor exploration. Using Bushnell binoculars and field guides, the year-long program seeks to inspire a new generation of conservationists. Nature Scopes concludes in May with a field day, when students graduate from the program and are awarded their own binoculars and field guides (Equipment per child is funding dependent).

Program Goals

Geauga Park District’s Nature Scopes program is designed to:

• Supplement school science instruction by providing hands-on lessons matched to the Ohio Science Standards for 5th grade.

• Provide tools and skills that increase students’ life-long enthusiasm for and appreciation of the natural world.

• Connect professional naturalists and trained volunteers with students throughout the school year to provide experiential nature study in a wide variety of natural habitats.

Sept. - June

No tax funds are used to purchase the students’ equipment for Nature Scopes. It is privately funded by individuals, civic organizations and businesses who value nature education.