

PROTECT · CONSERVE · CONNECT



GEAUGA PARK
DISTRICT

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.

STANDARDS KEY

ESS Earth & Space Science
LS Life Science
PS Physical Science
SS Social Studies

F Fall
W Winter
Sp Spring

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

Season	Program Title	Page	Grade Level	Standard
F	Exploring Autumn	5	PreK - 3rd	ESS, LS
W	Wonders of Winter	6	PreK - 3rd	ESS, LS
Sp	Spring Things	6	PreK - 3rd	ESS, LS
F/Sp	Pondlife Primer	6	PreK - 2nd	LS
F/Sp	Peering into the Pond	6	3rd & up	LS
F/Sp	Habitat Hide & Seek	7	K - 2nd	LS
F/W/Sp	Gauga Geology Rocks	7	3rd & up	ESS, LS
F	Monarchs & More	8	1st & up	LS
Sp	Maple Sugaring	8	K - 5th	ESS, LS, PS, SS
F/Sp	Woodland Ecology	9	3rd & up	LS
F/Sp	Wetlands & Watersheds	9	3rd & up	ESS, LS

OBSERVATORY PARK PROGRAMS

Season	Program Title	Page	Grade Level	Standard
F/Sp	Soil Science	10	5th & up	ESS
F/Sp	Geologic Timeline	11	6th & up	ESS
F/Sp	Solar Energy	11	5th & up	ESS, PS
F/Sp	The Sun: One Hot Topic	11	5th & up	ESS, PS
F/Sp	Weather Station & Forecasting	12	6th & up	ESS, PS
F/Sp	The Human Orrery	12	4th & up	ESS, PS
F/Sp	Planetary Distance Inquiry	13	5th & up	ESS
F/Sp	Magnification & Telescopes	13	4th & up	PS
F/W/Sp	Star Life Cycles	13	5th & up	ESS, PS
F/W/Sp	Planetarium	13	ALL grades	ESS, PS

OUTREACH PROGRAMS AT YOUR SCHOOL

Season	Program Title	Page	Grade Level	Standard
Sp	Amphibian Awakenings	14	K - 3rd	LS
F/W/Sp	Feathered Friends	14	K & up	LS
F/W/Sp	Portable Planetarium Programs	15	K & up	ES, SS
F/W/Sp	Gauga's History Written in Rock	15	3rd - 6th	ESS, LS
F/W/Sp	Gauga's Wildlife Past & Present	15	1st - 6th	LS, SS
F/W/Sp	Ohio's Ice Age Animals	16	2nd & up	ESS, LS
F/W/Sp	Earthquakes in Ohio	16	8th	ESS
F/W/Sp	Living History: John Muir	16	4th & up	SS
F/W/Sp	Insect Extravaganza	17	K - 3rd	LS
F/W/Sp	Scat, Tracks & Mammal Facts	17	K - 3rd	LS
Sept	Monarchs on the Move	17	K - 5th	LS
F/W/Sp	Wildlife Detectives	18	K - 3rd	LS
F/W/Sp	Weather Wizardry	18	K - 2nd	ESS
March	Maple Sugaring Time	18	K - 5th	LS, PS, SS

NATURE SCOPES

Season	Program Title	Page	Grade Level	Standard
F/W/Sp	Nature Scopes	19	5th	ESS, LS, PS

Don't see it in the list? Call to discuss special requests with our naturalist staff.

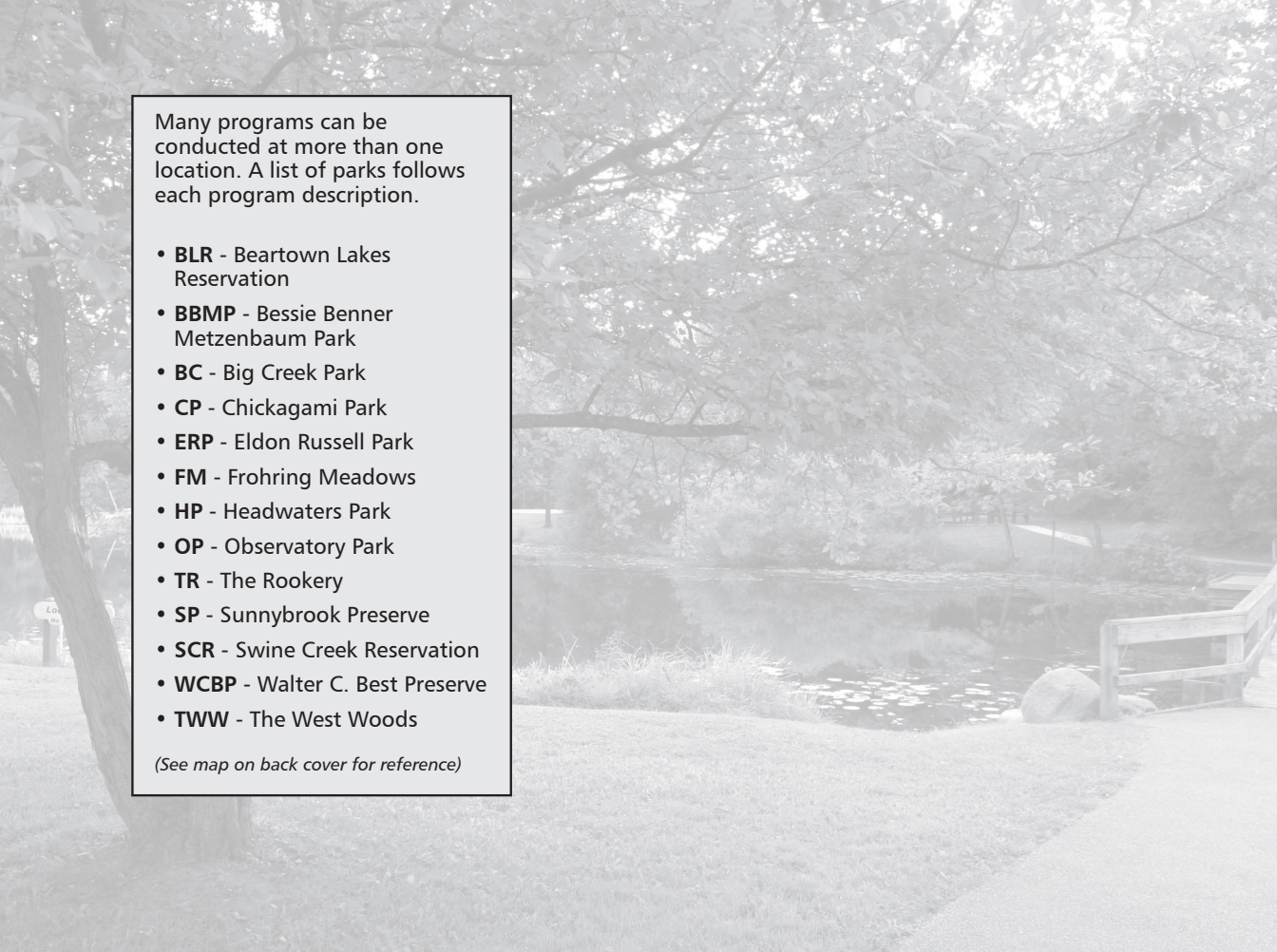
Observatory Park programs in astronomy/meteorology for elementary grades are under development.

Scheduling

- Call Geauga Park District at 440-226-2877 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.



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)

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 download a Field Trip Transportation Grant application at www.foundationforgeaugaparks.org/pages/grants or contact the Foundation by email (admin@foundationforgeaugaparks.org) or phone (440-564-1048). Transportation grants are limited to one field trip per school per grade level, on an annual basis.

Gauga Park District appreciates the support of the Foundation for Geauga Parks for its educational programs. As a result, students enjoy a wide variety of experiences such as Nature Scopes, Maple Sugaring, Pondlife Primer, Habitat Hide and Seek, planetarium programs and many other programs presented right in their classrooms. Since its inception in 2003, the Nature Scopes Binocular Program has proudly graduated more than 12,000 fifth-graders from its curriculum.



In-Park Field Trips

SIGNS OF THE SEASONS WALKS

Exploring Autumn

Recommended for Pre-K – 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:

K ESS, LS

1st ESS, LS

2nd LS

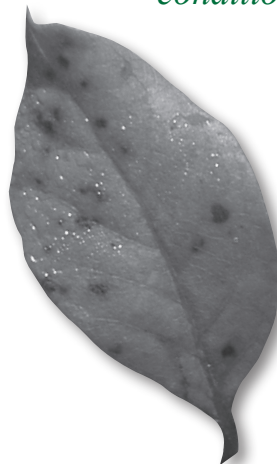
3rd LS

September - November

Length: 1 hour

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.*



SIGNS OF THE SEASONS WALKS (CONTINUED)

Wonders of Winter

Recommended for Pre-K – 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:

K **ESS, LS**

1st **ESS, LS**

2nd **LS, ESS**

3rd **LS**

December - February

Length: 1 hour

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

Spring Things

Recommended for Pre-K – 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:

K **ESS, LS**

1st **ESS, LS**

2nd **LS**

3rd **LS**

April - early June

Length: 1 hour

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



EXPLORING NATURAL COMMUNITIES

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:

K **LS**

1st **LS**

2nd **LS**

April - November

Length: 1.5 hours

Locations: BC, SCR, TWW

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:

3rd **LS**

4th **LS**

5th **LS**

7th **LS**

April - November

Length: 2 hours

Locations: BC, SCR, TWW

EXPLORING NATURAL COMMUNITIES (CONTINUED)

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 hours

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



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 - November

Length: 2 hours

Locations: BC, BLR, SCR, TR, TWW



Wetlands & Watersheds

Recommended for 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 - November

Length: 2 hours

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

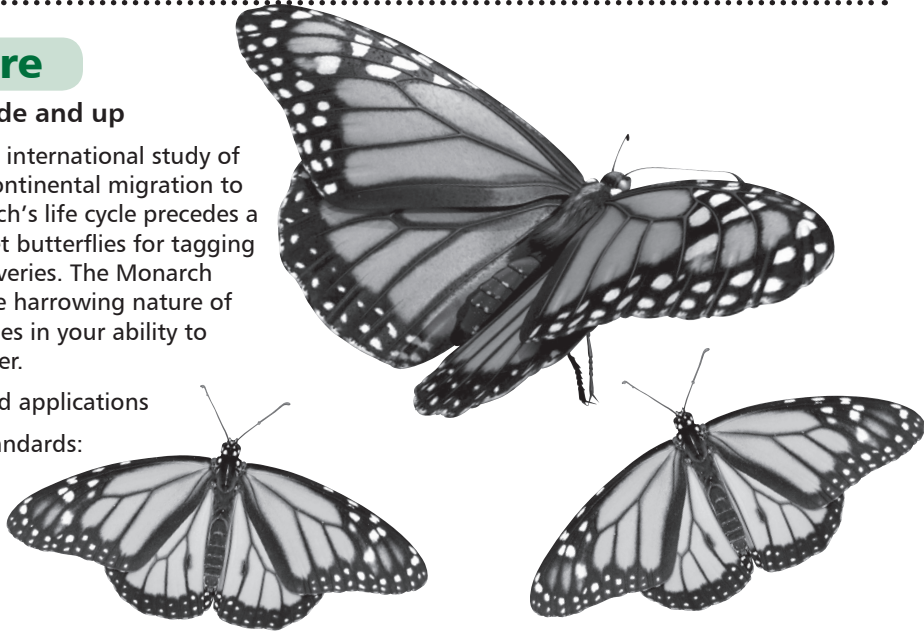
Meets the following science standards:

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

Mid-September

Length: 1½ hrs, (2 classes - 2 hours)

Location: SCR, FM



Maple Sugaring

All Ages. Recommended K – 5th grade

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.

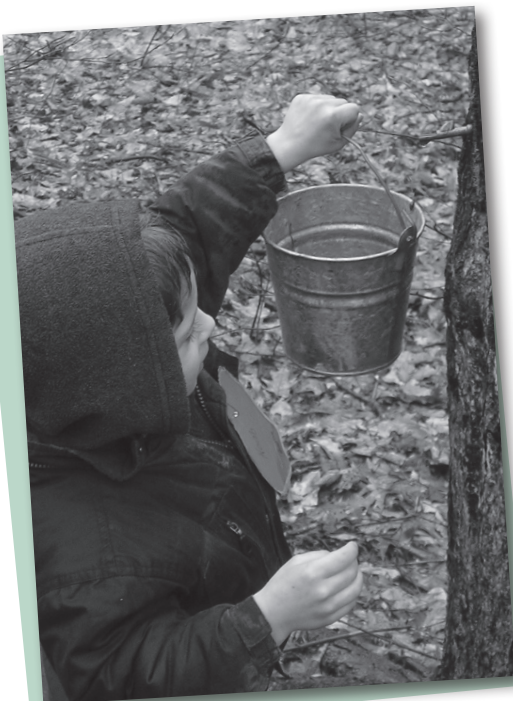
Meets the following science and social studies standards:

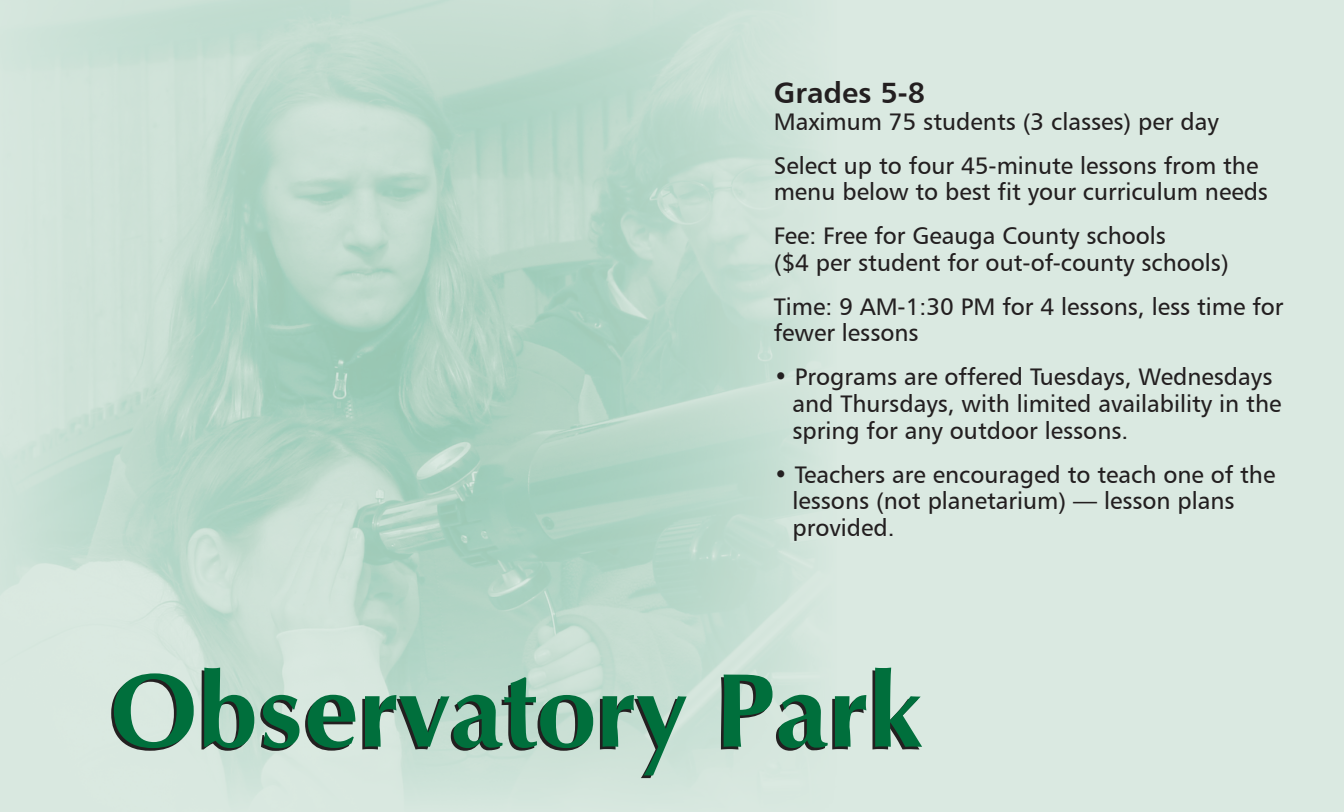
K ESS, LS, PS, SS-History, Geography, Economics
1st ESS, LS, PS, SS-History, Geography, Economics
2nd ESS, LS, PS, SS-History, Geography, Economics
3rd ESS, LS, PS, SS-History, Geography, Economics
4th LS, SS-History, Geography
5th LS, SS-Geography

March

Length: 1½ hours

Locations: SCR





Grades 5-8

Maximum 75 students (3 classes) per day

Select up to four 45-minute lessons from the menu below to best fit your curriculum needs

Fee: Free for Geauga County schools
(\$4 per student for out-of-county schools)

Time: 9 AM-1:30 PM for 4 lessons, less time for fewer lessons

- Programs are offered Tuesdays, Wednesdays and Thursdays, with limited availability in the spring for any outdoor lessons.
- Teachers are encouraged to teach one of the lessons (not planetarium) — lesson plans provided.

Observatory Park

Featuring a 150-person indoor public building with planetarium, separate observatory with 25.5"-diameter telescope, 1-mile planetary trail, shorter weather trail and other exterior astronomical displays.

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 - October

Length: 45 minutes

Location: OP

- Funding is available for Geauga Park District field trips! See page 4 for details.

GEOLOGY (CONTINUED)

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 - October

Length: 45 minutes

Location: OP



METEOROLOGY

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 devices 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 - October

Length: 45 minutes

Location: OP

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 - October

Length: 45 minutes

Location: OP

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 - October

Length: 45 minutes

Location: OP



ASTRONOMY

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 - October

Length: 45 minutes

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 minutes

Location: OP

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 minutes

Location: OP



Magnification & Telescopes

Recommended for 4th grade and 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

April - October

Length: 45 minutes

Location: OP



Planetarium

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 minutes

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 grade

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 minutes



Feathered Friends

Recommended for K 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: 45 minutes to 1 hour

OUTREACH PROGRAMS (CONTINUED)

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 minutes

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 hour



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 minutes



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 hour

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.

NEW!

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

NEW!

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 hour



OUTREACH PROGRAMS (CONTINUED)



Insect Extravaganza

All Ages. Recommended K – 3rd grade

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 minutes

Scat, Tracks & Other Mammal Facts

All Ages. Recommended K – 3rd grade

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 minutes



Monarchs on the Move

All Ages. Recommended K – 5th grade

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**

September

Length: 45 minutes

OUTREACH PROGRAMS (CONTINUED)



Wildlife Detectives

Recommended for K – 3rd grade

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:

K LS
3rd LS

Year Round

Length: 45 minutes to 1 hour

Maple Sugaring Time

All Ages. Recommended K – 5th grade

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:

K ESS, LS, PS, SS
1st ESS, LS, PS, SS
2nd ESS, LS, PS, SS
3rd ESS, LS, PS, SS
4th LS SS
5th LS, SS

March

Length: 45 minutes



Weather Wizardry

Recommended for K – 2nd grade

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:

K ESS
1st ESS
2nd ESS

Year Round

Length: 45 minutes



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 440-226-2877 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



Nature Scopes

Registered Geauga County fifth-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.)

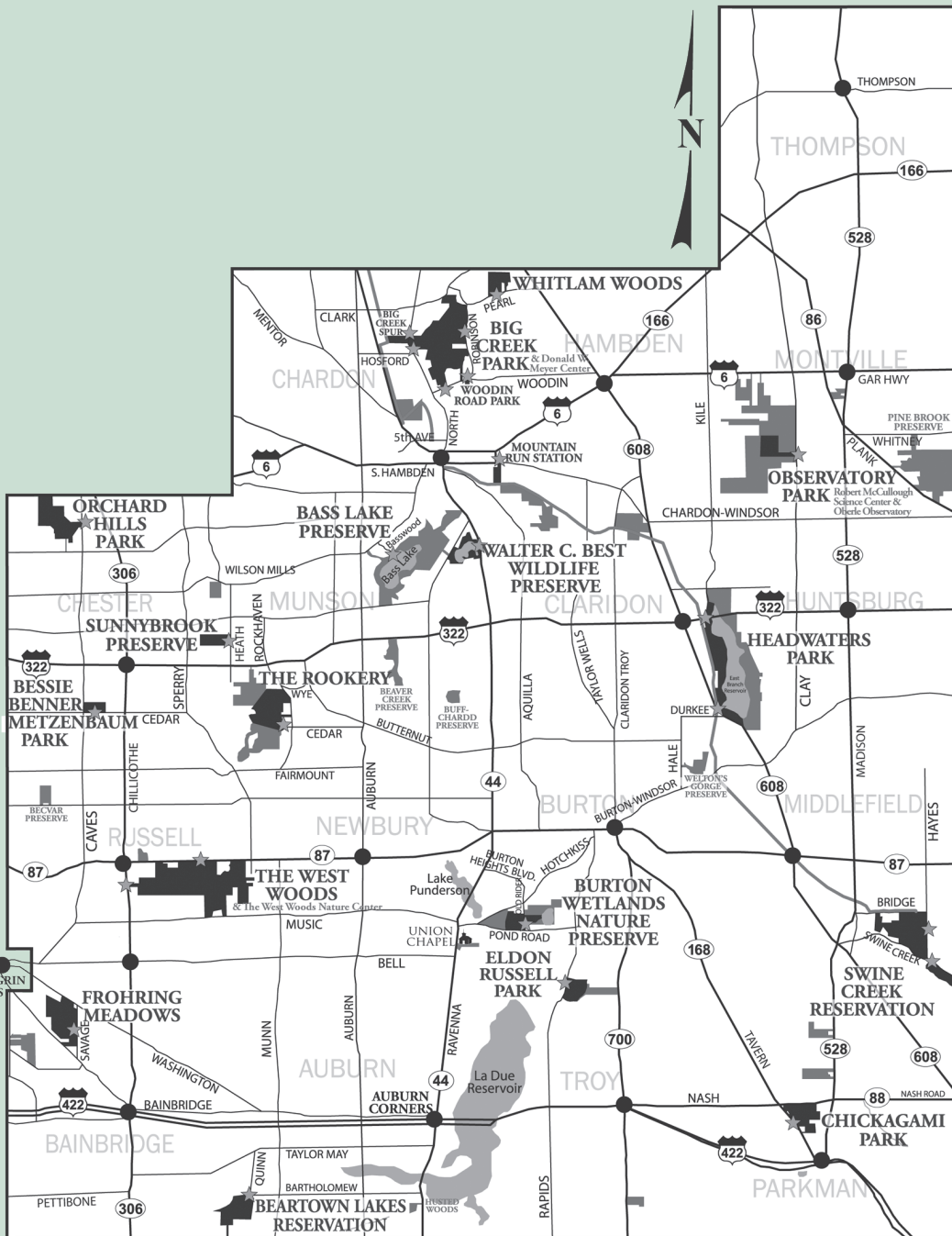
Program Goals

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 fifth-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

September - June

Tax funds are used to purchase the binoculars and field guides used in Nature Scopes, but Geauga Park District is consistently grateful to the Foundation for Geauga Parks for generously reimbursing these funds. Learn more about the Foundation at www.foundationforgeaugaparks.com.



GEAUGA PARK
DISTRICT

Geauga Park District

9160 Robinson Road • Chardon, Ohio 44024

440-286-9516

www.geaugaparkdistrict.org

Available online
11-23