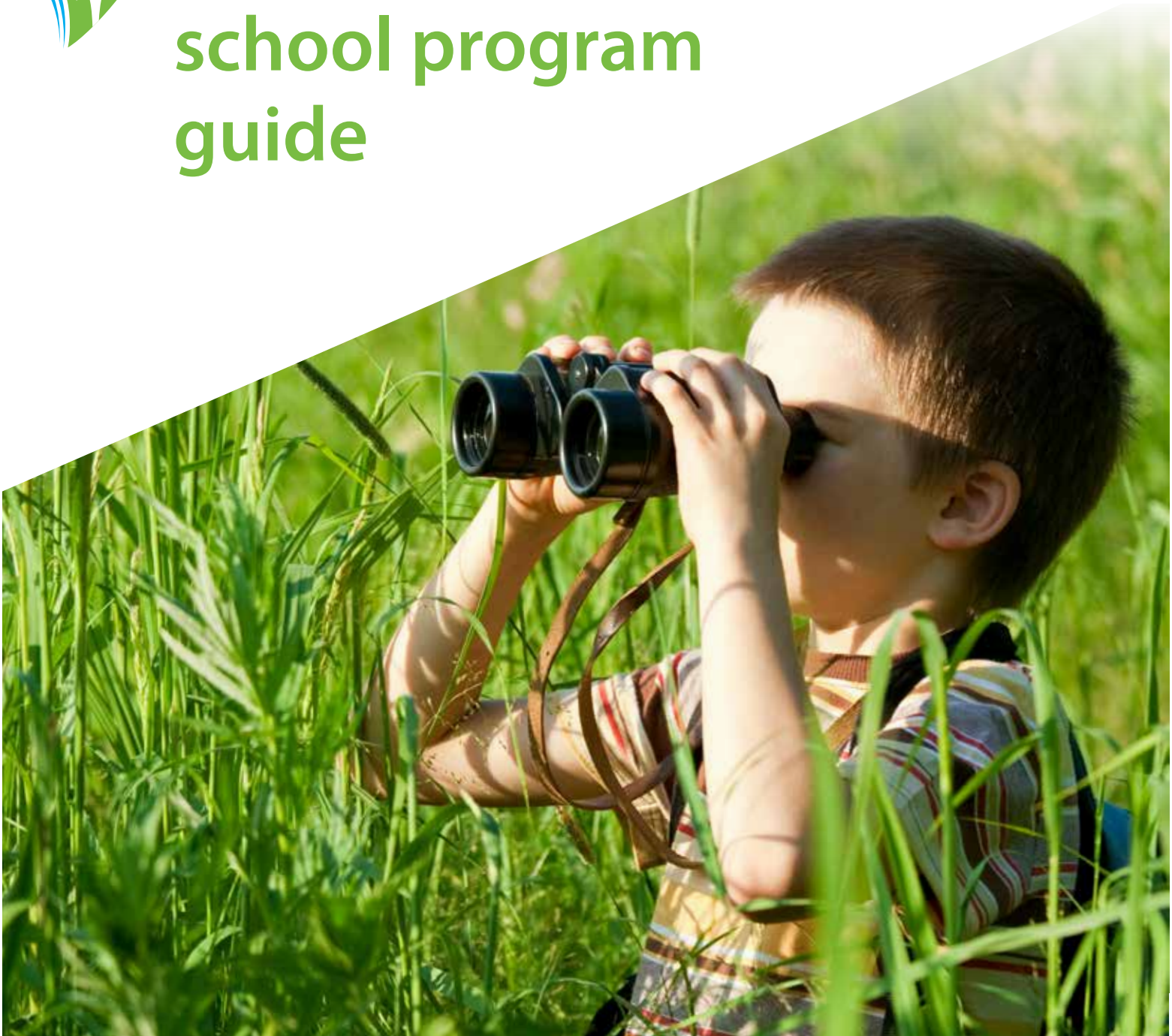




# HURON-CLINTON metroparks school program guide



HURON-CLINTON  
metroparks

2018-2019



[www.metroparks.com](http://www.metroparks.com)



The Huron-Clinton Metroparks consist of 13 beautiful parks, covering 25,000 acres throughout Southeast Michigan, encompassing Wayne, Oakland, Macomb, Washtenaw, and Livingston counties, drawing over seven million visitors annually.

### **WHO WE ARE:**

The Huron-Clinton Metroparks Interpretive Department boasts one of the largest interpretive programs in the nation. It has been recognized for its professional leadership, educational programs, expertise of staff, and commitment to the natural and cultural environment.

### **WHAT WE OFFER:**

School programs provide environmental, cultural, and natural science literacy. All programs support the Michigan Science Standards curriculum in content, methodology, and technology use. A wide variety of programs offered that support Common Core curriculum, STEM, and Michigan Science Standards. Each of these programs are taught by a professional Interpreter who is knowledgeable in the content and school requirements.

### **WHEN WE OFFER SCHOOL PROGRAMS:**

School programs and field trips are available year-round.

### **WHERE ARE WE:**

Our Interpretive Centers are located in 10 Metroparks, along with an extensive mobile learning program for Southeast Michigan.

- Hudson Mills Metropark Activity Center
- Indian Springs Metropark Environmental Discovery Center
- Kensington Metropark Farm and Nature Center
- Lake Erie Metropark Marshlands Museum
- Lake St. Clair Metropark Nature Center
- Oakwoods Metropark Nature Center
- Stony Creek Metropark Nature Center
- Wolcott Mill Metropark Farm and Historic Center

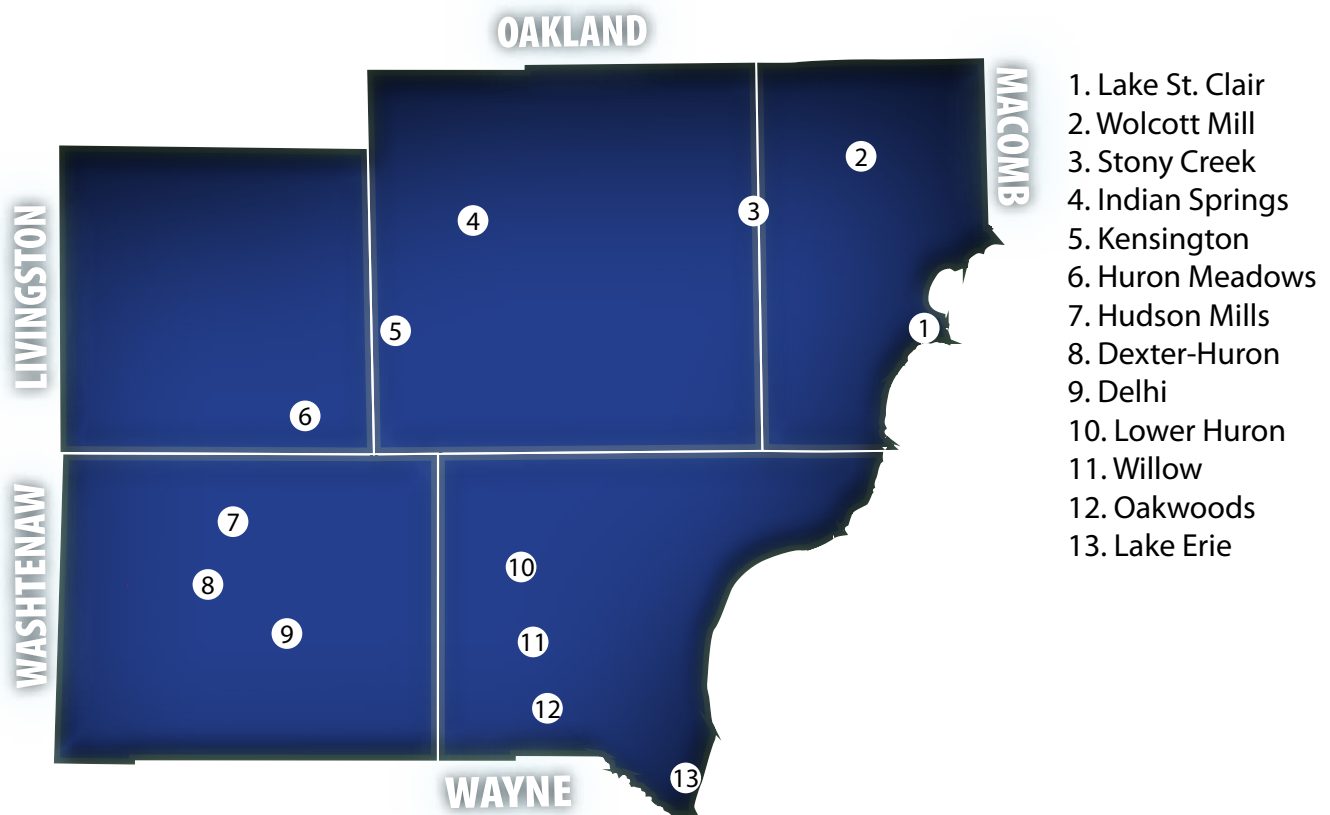
### **WHY SCHEDULE A SCHOOL PROGRAM:**

Research shows that children's social, psychological, academic, and physical health is positively impacted when they have daily contact with nature. Environmental education engages students in learning and raises test scores. Our school programs are great examples of STEM-based environmental education, with hands-on activities, cooperative learning, and critical thinking.

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- 9. Delhi
- 10. Lower Huron
- 11. Willow
- 12. Oakwoods
- 13. Lake Erie



## GETTING STARTED

Group reservations can be made by calling individual centers. All reservations must be made at least two weeks in advance.

### TO SCHEDULE A PROGRAM, HAVE THE FOLLOWING INFORMATION READY:

- Date and time you would like to have your program
- Number of children
- Program you would like to schedule
- School address, email address, and phone number

### CONFIRMATION

A confirmation email with important details regarding your visit will be sent to you after you schedule an appointment.

### FIELD TRIP

- These programs are at the park
- One hour programs are \$3 per student, \$45 minimum charge
- 1½ hour programs are \$4.50 per student, \$60 minimum charge
- 2 hour programs are \$6 per student, \$90 minimum charge
- Voyageur Canoe programs are \$75 per ride, 12 person minimum and 18 person maximum
- For schools outside of Livingston, Macomb, Oakland, Washtenaw, and Wayne counties, programs are \$4 per student per hour
- Due to program cost, some fees may vary - See program listings
- Vehicle permit required for park entry, excluding school buses

### MOBILE LEARNING COST

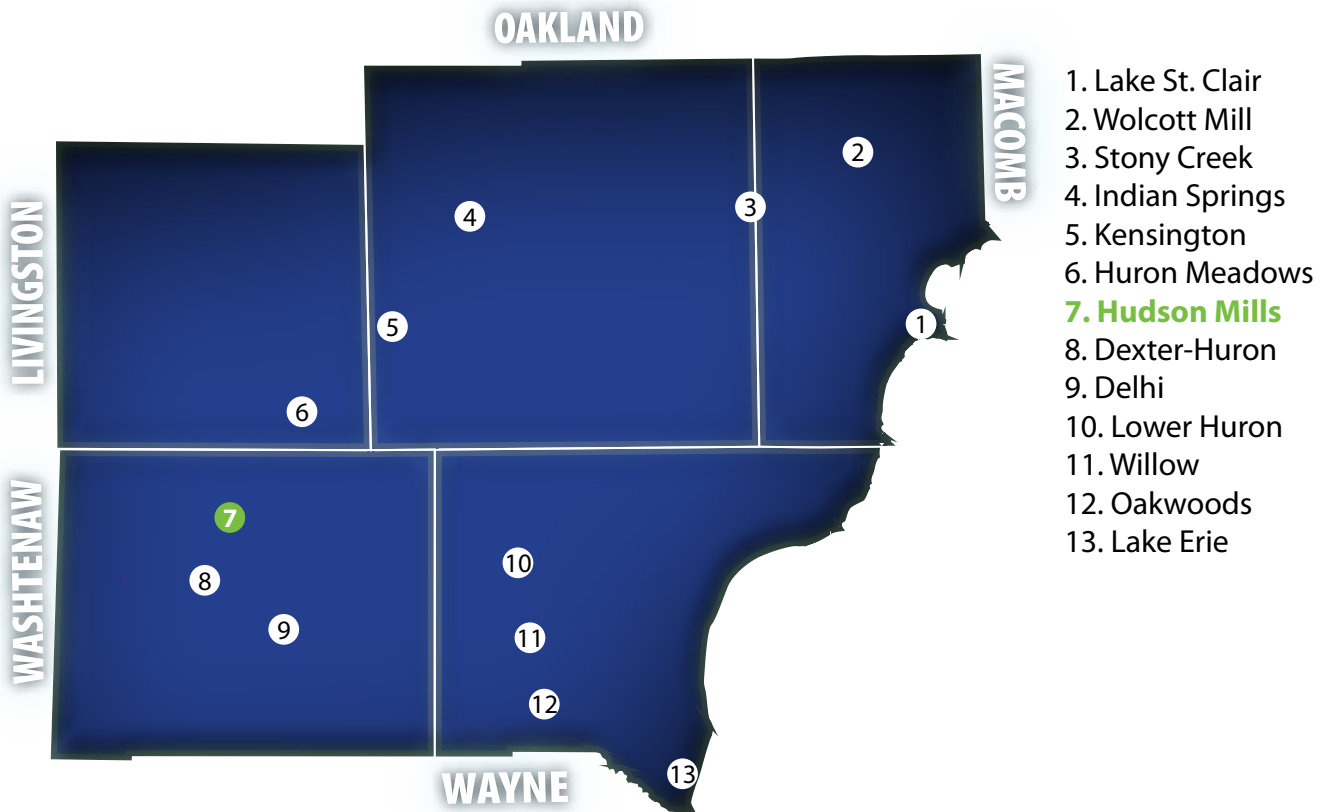
- These programs are at your school
- Cost is \$100 for the first program, \$75 for additional programs the same day
  - There is a maximum of four programs per day with 30 students per program - Subject to change due to topic choice
  - Includes schools within Wayne, Oakland, Livingston, Macomb, and Washtenaw counties
    - Different fees apply for counties outside of those previously listed
- Due to program cost, some fees may vary - See program listings
- Limit to one program type per visit

### SCHOLARSHIP OPPORTUNITIES

The Metroparks offer a variety of scholarship opportunities. These range from transportation and field trip funding to outreach programming. Please refer to our website for current opportunities. If you are interested in sponsoring these educational opportunities please visit the Metroparks Foundation page on the website.

# HUDSON MILLS METROPARK ACTIVITY CENTER

734-426-8211 • 8801 N. Territorial Road, Dexter, MI 48130



With a historic river meandering through its 1,549 acres, Hudson Mills Metropark is located on North Territorial Road, 12 miles northwest of Ann Arbor. The park's trails give easy access to the marriage of serene woods and waters. The Interpretive program is based out of the Activity Center, which is located at the head of the two-mile Nature Trail. Programs combine an indoor component with an exploration using nearly four acres of woodland and wetland as an outdoor classroom. Playfields, playgrounds and a food bar are also available from the Activity Center.





## ALL GRADE LEVELS

### MAPLE SUGARING

**MARCH • 1 HOUR**

Experience how maple syrup has been made over the years. This includes tapping a maple tree, watching the process of turning sap into syrup and getting a sweet taste at the end. An optional all-you-can-eat pancake and sausage breakfast is available for an additional \$3.50 per student and \$5.50 per adult.

*Focus: plant parts & function · plant needs · how people use the environment · states of matter*

### HUDSON MILLS THROUGH THE SEASONS; SEASONAL HIKE YEAR-ROUND • 1 HOUR

Take a hike to see, hear and smell the signs of the season. Learn the basic needs of the plants and animals of the park. Register for all seasons for a complete life cycle!

*Focus: identify basic needs identify & compare living & non-living things · life cycles*

## PRESCHOOL – KINDERGARTEN

### CREEPY CRAWLIES

**FALL & SPRING • 1 – 1½ HOURS**

Go on a bug hunt and discover the difference between insects, worms, and spiders, and observe their amazing adaptations for survival. (OPTIONAL: Decorate a creepy crawly T-shirt. Have the students bring a white or light-colored t-shirt.)

*Focus: identify basic needs · identify & compare living & non-living things*

### ANIMALS IN WINTER

**WINTER • 1 HOUR**

Discover how animals survive the winters through hands-on objects and a short hike.

*Focus: identify basic needs identify · compare living & non-living things*

## FIRST – SECOND

### WETLAND DISCOVERIES

**FALL & SPRING • 1 HOUR**

Search for animals in the stream using nets. By exploring the biodiversity, you will understand how this relates to positive and negative effects that humans have caused on the environment.

*Focus: identify the needs of animals life cycles water quality habitats*

### PLANT PARTS & THEIR CYCLES

**FALL & SPRING • 1 – 1½ HOURS**

Discover parts of plants and their cycles. Discuss how a flower turns into a seed, and travels. Then, dress up a student to become a flower. Go on a scavenger hunt and search for plant parts.

*Focus: plant parts & functions plant life cycles identify needs of plants*

### PLANT HEREDITY

**FALL & SPRING • 1 HOUR**

Through games, students will explore plant heredity, observable plant characteristics and how these are passed on from parents to young. This is a wonderful follow-up program to "Plant Parts and Their Cycles."

*Focus: plant heredity · characteristics passed from adult to young*



## INCREDIBLE INSECTS

**FALL & SPRING • 1 – 1½ HOURS**

Discover insects and their life cycles, then search for them outside using nets. Also, observe insects' amazing adaptations for survival.

*Focus: identify basic needs · identify & compare living & non-living things · environmental adaptations*

## ANIMAL ADAPTATIONS & STRUCTURES

**YEAR-ROUND • 1 HOUR**

Learn how animals protect themselves, how they get food, and why they look the way they do through hands-on items and a game.

*Focus: structures & functions · classification · environmental adaptation*

## LET'S GO FISHING!

**SPRING • 1 HOUR**

Go fishing using the park's rods and reels. Explore fish as predators and prey in the food chain.

*Focus: environmental adaptations · food chain · structures & functions · classify animals*



## THIRD – SIXTH

### THE FRENCH VOYAGEURS & THE FUR TRADE

**YEAR-ROUND • 1 HOUR**

Join a French Voyageur to learn about the trade and interactions between the French and the Native American here in Michigan. Through artifacts and replicas, students will experience life at a 1700s era trading post. Michigan history, geography and economics come alive in one program.

*Focus: Native/European interaction · physical characteristics of Michigan · scarcity · choices · natural resources*

### PREDATOR PREY CSI

**YEAR-ROUND • 1 HOUR**

Students will identify the mystery animal by comparing animal skulls and adaptations. Then play the predator and prey carrying capacity game.

*Focus: Adaptations · organisms · habitat, predator and prey*

### ORIENTEERING

**YEAR-ROUND • 1½ HOURS**

Learn the basics of orienteering. Also, learn how to read a map and compass, then practice your knowledge during a survival game.

*Focus: magnetic field of the earth as a magnet map & compass reading · Angles and computation*



### HURON RIVER ECOSYSTEM

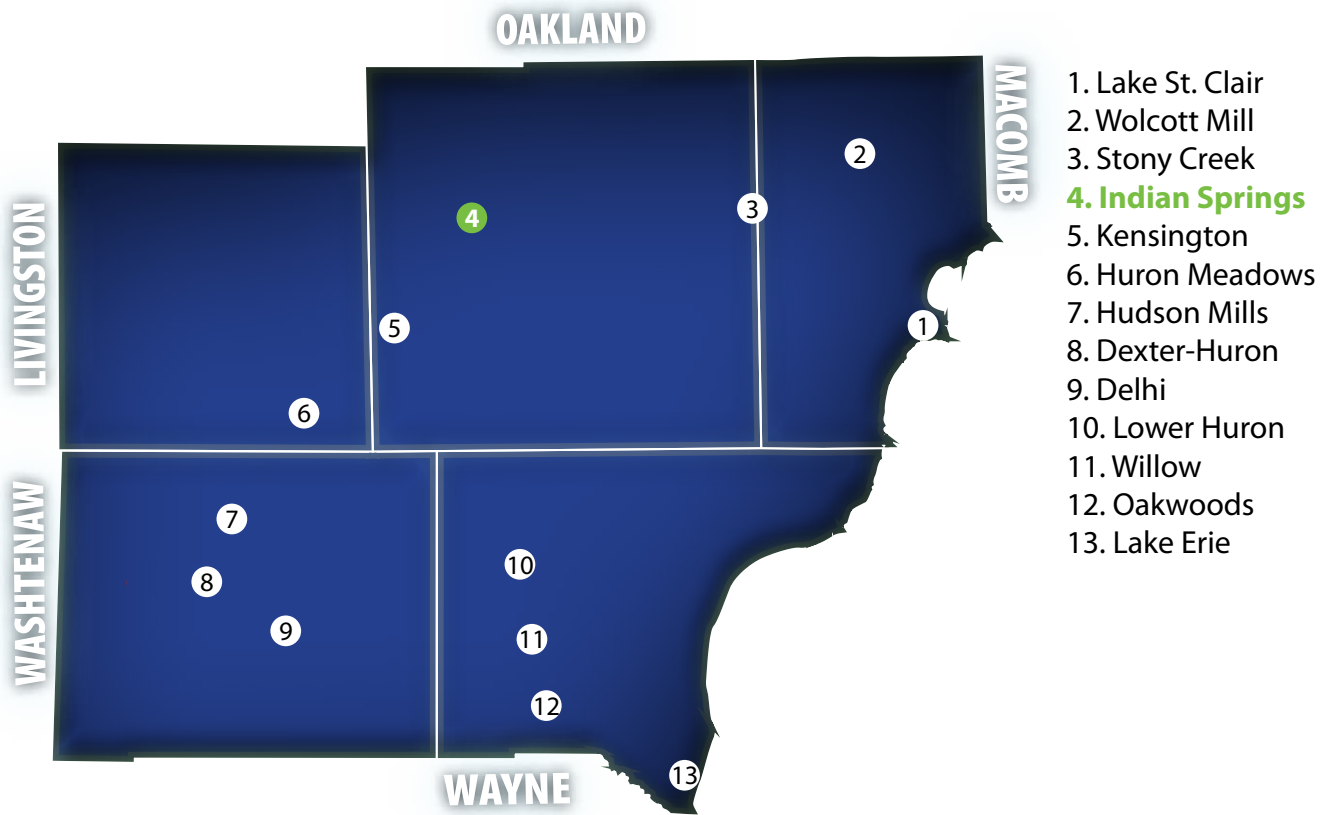
**YEAR-ROUND • 1½ HOURS**

Using nets, collect and identify macro invertebrates from the Huron River watershed. Oxygen content, erosion and water quality will be measured using the flora and fauna living in the water. Students should wear water shoes.

*Focus: species adaptation & survival · life requirements · food webs · ecological relationships · water quality*

# INDIAN SPRINGS METROPARK ENVIRONMENTAL DISCOVERY CENTER

248-625-7280 • 5200 Indian Trail, White Lake, MI 48386



Use science to explore nature at the Indian Springs Environmental Discovery Center! Your students will experience engaging, interactive and educational programs. Program content and activities are adjusted to meet the needs of preschool through high school. Pre and post visit materials are available upon request.

The award-winning EDC building contains classrooms, a biology lab, and a 200-person event room used for a variety of school, scout and public programs. The interactive exhibits feature the diversity of the park's ecosystems. The underwater pond viewing room gives a below-the-water peek at pond life.

Make a day of it! While at the park, visit the Splash Pad, Adventure Play Area, maze, sand play area, sand volleyball court, and baseball diamond.







## YEAR-ROUND PROGRAMS

\* For any program that includes t-shirt painting, please have students bring a white or light-colored t-shirt.

### ANIMAL CLASSIFICATION

#### EARLY ELEMENTARY & UP • 1½ – 2½ HOURS

Enjoy a presentation and hands-on study of the five vertebrate families, including skins and skulls of each. Take part in interactive games. Early elementary classes may choose to make an animal track stamp T-shirt. An outdoor trail hike may be added to search for signs of animals in different habitats.

*Focus: structures & functions · classification · environmental adaptation*

### MICHIGAN GEOLOGY: FOSSIL FOCUS

#### 4TH GRADE & UP • 2 HOURS

Fossils are fascinating! Outdoors, students will investigate areas of geologic interest on an interpretive fossil hike. In the lab, students will compare actual fossils with organisms alive today and do hands-on fossil identification.

*Focus: fossil evidence of the history of the earth · changes in the environment & organisms over time*

### MICHIGAN GEOLOGY: IMPACT OF GLACIERS

#### 4TH GRADE & UP • 2 HOURS

15,000 years ago, Michigan was covered by a mile-thick glacier! Students will discover what the glaciers left behind...the mitten! We'll learn about erosion, weathering and glacial movement with hands-on demonstrations.

*Focus: changes in the earth's surface · water movement · impact of glaciers*

### MICHIGAN GEOLOGY: ROCKS!

#### 4TH GRADE & UP • 2 – 2½ HOURS

Students will discover why Michigan Rocks! We'll identify and explore igneous, sedimentary and metamorphic rocks, and how they are made. We can take a scavenger hike to hunt for Michigan's fossils, rocks, and minerals, and learn how they are used in everyday items.

*Focus: changes in state · rock formation · plate tectonics · fossils · geologic time*

### MICHIGAN GEOLOGY: SOIL SCIENCE

#### 6TH GRADE & UP • 2 HOURS

Students will dig into dirt! Head out on the trail for soil sampling and comparison, then in the lab, we'll analyze different samples of soil to learn about texture, type, color, temperature, moisture content, carbonates, and other attributes.

*Focus: renewable natural resources · human impact*

### LANDFORMS: THE SURFACE OF THE EARTH

#### 4TH GRADE & UP • 1½ – 2 HOURS

Students will learn how water, wind and ice shape our land with stream table demonstrations. We'll hike to different locations to explore how humans and nature have changed Michigan's surface.

*Focus: natural resources · types of landforms · changes of the earth's surface*



## **WATER CYCLE**

### **EARLY ELEMENTARY & UP • 2 – 2½ HOURS**

Students will follow the journey of a water drop through the water cycle as a solid, liquid and a gas! Using our steam table we'll learn how water shapes our environment as glaciers, in ponds, lakes and even in the air. We'll hike to our wetlands and visit our Discovery Pond.

*Focus: water as a natural resource · water movement · bodies of water & how water flows into them · states of matter*

## **INFLATABLE CUBEX PLANETARIUM**

### **2ND GRADE & UP • 2 HOURS**

Students can experience the night sky, indoors in our Cubex inflatable planetarium! We'll explore constellations, tell star stories, and explain day, night, and seasonal cycles. Everyone will create their own constellation T-shirt.

*Focus: observable characteristics · predictable patterns of movement*

## **ENERGY IN MOTION**

### **3RD GRADE & UP • 1 – 1½ HOURS**

Students will learn about different forms of energy. We'll measure energy, and transform it by making a battery. We will "see" the light when we learn how electricity is made, and calculate our energy footprint. Students will discover how we "use" sound, heat, light and electrical energy and explore sustainability.

*Focus: gravity · force · speed · forms of energy & light*

## **WEATHER OF THE SEASONS**

### **EARLY ELEMENTARY • 1 – 1½ HOURS**

Students will make and use simple tools to go outdoors and measure the weather! We'll learn about basic weather and climate concepts and make a weather t-shirt.

*Focus: temperature · seasons · precipitation · clouds · wind direction & speed*

## **WEATHER & CLIMATE**

### **UPPER ELEMENTARY • 1 – 2 HOURS**

Students will learn about basic weather concepts by measuring and investigating micro-climates with state of the art technology as well as traditional devices. We'll learn about fronts and forecasting, weather maps and human effects on our weather and climate.

*Focus: weather measurement · human impact*

## **NOAA WEATHER STATION TOUR & MEET A METEOROLOGIST**

### **3RD GRADE & UP • 1 HOUR**

Students will tour the National Weather Service Forecast office and experience how meteorologists gather information and forecast our weather. This option can be added to the "Weather & Climate" program. EDC staff will coordinate your appointment. 25 students at a time maximum.

*Focus: technology, career education, weather forecasting*





## FALL PROGRAMS

\*hayrides last about 35-45 minutes

### “FALL”ING FOR NATURE

**PRESCHOOL • 1½ HOURS**

Hike the trails, breathe in the crisp air, and look for signs of fall. Create a leaf collection book and paint a leaf-print T-shirt to remember your day! Add on a half-hour hayride\* for an additional fee.

*Focus: seasons, habitats, trees, shrubs and plants*

### AUTUMN ADVENTURE

**KINDERGARTEN – 3RD GRADE • 2 – 2½ HOURS**

Early elementary students will explore the season with a woodland hike. Afterward, identify and label leaves in a booklet to take home. They will have fun with the “Lifecycle of a Tree” presentation, then paint a leaf-stamp t-shirt to take home. For an additional fee you can also add a hayride.\*

*Focus: plant structures & functions · plant life cycles*



## WINTER PROGRAMS

### ANIMALS IN WINTER

**PRESCHOOL – EARLY ELEMENTARY • 1½ – 2 HOURS**

See how different animals live in the winter, make an animal track stamp t-shirt and take a trail hike to look for animal signs. “Meet an Animal”, an extra half-hour segment may be added.

*Focus: seasons · habitats · animal tracking*

### WINTER ECO-ADVENTURE

**3RD – 6TH GRADE • 1½ – 2 HOURS**

Ecosystems are alive in the winter! Study the survival adaptations of animals and plants, look for signs of animal activity on the trail, and measure and compare weather conditions in relation to the snowpack (weather permitting).

*Focus: ecosystem interactions · classification · environmental adaptation · survival · weather measurement*



### MAPLE SUGARING

**MARCH ONLY • ALL AGES • 1½ HOURS**

Combine science and social studies as you learn maple sugaring techniques from Native American times to present day, indoors. Then hike outside to the sugarbush, tap a tree and see the boiling process. Everyone gets a chance to taste pure maple syrup!

*Focus: American Indian stories · American Indian & settler interactions & relationship to environment · plant parts & functions · states of matter · weather · seasons · movement of goods in a community*

## SPRING PROGRAMS

### “POND”ERING WETLANDS

**PRESCHOOL • 1½ HOURS**

Wetlands come alive in the spring! Investigate pond water up-close, learn about amphibian life cycles while you stamp a frog lifecycle t-shirt, and go on a wetland hike. “Meet an Animal”, an extra half-hour segment may be added.

*Focus: habitats · life cycles*



## FALL/SPRING PROGRAMS

### ECOSYSTEM EXPLORATION

#### EARLY ELEMENTARY & UP • 1½ – 3 HOURS

Take a hike to compare a wetland, prairie, and forest with data loggers and science tools. Learn about the adaptations of animals, plants and invasive species in these areas. Grades four and up can add time in the Microscope Lab to investigate the smallest inhabitants of aquatic ecosystems. Interactive games can also be included. Middle and high school students may add environmental chemistry to investigate the chemical parameters of aquatic ecosystems.

*Focus: ecosystem interactions · classification · environmental adaptation · survival · human impact*

### WETLANDS & WATER QUALITY

#### EARLY ELEMENTARY & UP • 2 – 3 HOURS

Visit the marsh, fen, vernal pond, and swamp on a wetland comparison hike; with or without data collection. Grades four and up can investigate benthic macro invertebrates in the Microscope Lab. Go pond dipping with nets and visit the Underwater Pond Dome. Middle and high-schoolers can add an environmental chemistry component to test for chemical and biological parameters including pH, dissolved oxygen, temperature, turbidity and nutrients.

*Focus: life cycles · structures & functions · classification · environmental adaptation · water quality · ecology · human impact*

### ECOLOGY OF THE FOREST FLOOR

#### EARLY ELEMENTARY & UP • 2½ HOURS

Take an interpretive hike to the Huron Swamp forest. Investigate the forest floor in a “search and sample” activity. Grades four and older can visit the Microscope Lab to see the hidden life of soil up-close. Interactive games and demonstrations can be added as time permits.

*Focus: ecosystem interactions · classification · environmental · adaptation · survival, human impact*

### INCREDIBLE INSECTS

#### EARLY ELEMENTARY & UP • 1½ – 2 HOURS

Examine water and land insects in this introduction to their life cycles. Learn about the special characteristics that all insects have and then use sweep nets in a “catch and release” investigation. A pond study will allow you to see aquatic insects up close! Early elementary classes can also choose to stamp an insect life cycle T-shirt.

*Focus: life cycles · structures & functions · classification · environmental adaptation*

### PLANT PARTS & CYCLES

#### EARLY ELEMENTARY & UP • 1½ HOURS

In this introduction to how plants work, students will go on a plant discovery hike, complete a seed dispersal lab and make a plant life cycle T-shirt to take home.

*Focus: plant structures & functions · plant life cycles · environmental adaptation*

### POND STUDY

#### EARLY ELEMENTARY & UP • 1 – 2 HOURS

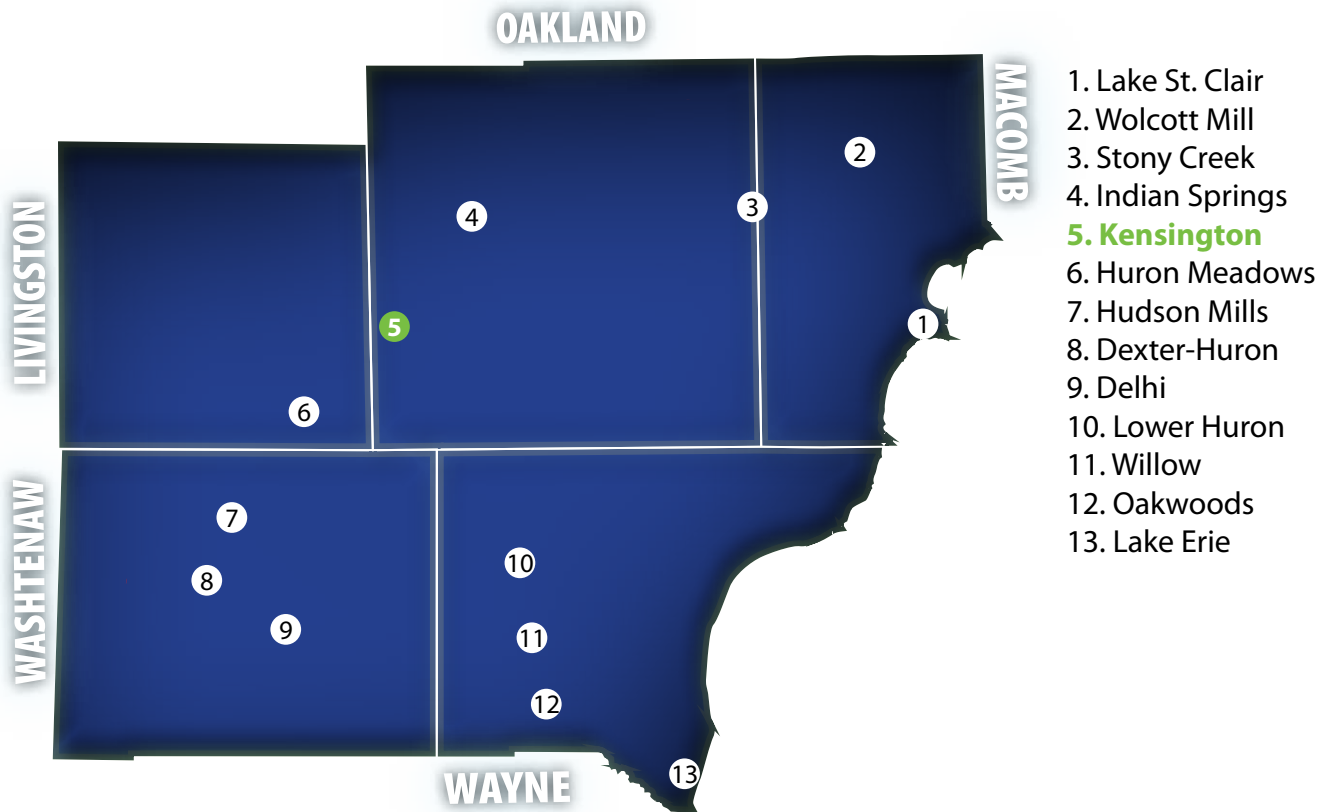
Discover what little critters live in our pond! We’ll take a hike to the wetland, use nets to dip for pond creatures and learn how and why they love our ponds and wetlands. A visit to the Underwater Pond Dome will complete your day!

*Focus: life cycles · structures & functions · classification · environmental adaptation*

# KENSINGTON METROPARK

## FARM CENTER

248-684-8632 • 2240 West Buno Road, Milford, MI 48380



Meet farm animals and get a glimpse of rural life at Kensington Metropark's Farm Center. Take in the sights, smells and sounds of life on the farm and see live farm animals like chickens, sheep, cattle, and draft horses. Visit a 150-year old restored barn, the poultry house or the barn exhibit room and kids' area. Take a short walk to the riverside where a one-of-a kind "green" building (made exclusively of natural materials), a stone labyrinth, a grass maze, and the early skills area including a blacksmith shop and brick oven can all be found. Why not also schedule a visit with the Nature Center to add a wild component to your trip?

Please feel free to pet the animals that approach you but do not feed them. Spring is an exciting season because that's when most of the farm babies are expected.





## **HAY & SLEIGH RIDES**

**RATE: 10 A.M. – 4 P.M.: ½ HOUR: \$50**

Pile into our straw-filled wagon for a rustic ride pulled by a team of draft horses or tractor. In winter\*, enjoy an old-fashioned sleigh ride instead. Hayrides are wheelchair accessible and are subject to tractor-drawn at any time. To schedule, please call the Farm Office at 248-684-8632 a minimum of 10 days in advance. The hay wagons can accommodate approximately 20 passengers per ride and the sleigh can seat 12.

*\*Minimum base layer of snow 6 to 8 inches.*

During the month of October, chartered Pick-Your-Own Pumpkin day rides will be offered Monday – Friday. Pumpkins and gourds are priced according to size. All weekday pumpkin hayrides are tractor-drawn.

## **BONFIRE PIT RENTAL**

**RATE: 9 A.M. – 5 P.M.: \$50**

Want a crackling fire with your next gathering, the Farm Center has four bonfire pits available for rent along the Huron River. Firewood is included in the cost of the rental.

## **RENTAL SPACE**

**RATE: 9 A.M. – 5 P.M.: \$50 (2 HOUR MINIMUM), ALL DAY: \$300**

The Farm Center has both a heated classroom and the upper floor of the main barn available for rent. To schedule, please call the Farm Office at 248-684-8632 a minimum of 10 days in advance. It can comfortably seat 60-80 people and its available tables and chairs can be configured in a number of ways. The room has a kitchenette, white-board and projector screen. The upper floor of the barn is heated and its wood floors and exposed beams make it a perfect venue for a Square Dance or country-themed party.

## **YEAR-ROUND PROGRAMS**

### **FARM TOUR**

**OUTDOOR • 3RD – 6TH GRADE • 1 HOUR**

Many children have never set foot on a working farm or know where their food and fiber comes from. This program introduces students to the animals living on the farm and their contributions to society. Students are encouraged to greet the different animals face to face while they learn about the job that specific animal does on the farm. Students will learn about the basic needs all animals have and also the differences between mammals and birds. Students will also find out what it means to be domesticated while gaining a deeper appreciation of agriculture.

*Focus: life requirements · structures and functions · agriculture · observable characteristics of animals · domestication · heredity · observable parts & physical characteristics*

### **FARM TOUR FOR LITTLE ONES**

**OUTDOOR • PRESCHOOL – 2ND GRADE • 1 HOUR**

What does a sheep feel like? Why does a rooster crow? How many babies can a pig have? Younger students will learn the answers to these questions and about each animals “Job” on the farm. Enjoy meeting the farm’s animals through interactive sounds, sights, and hands-on contact. A memorable experience!

*Focus: life requirements · structures and functions · life cycles of animals*



## **KIDS' COTTAGE TOUR**

**OUTDOOR • 2ND GRADE & UP • 1 HOUR**

Visit this natural building which was constructed using local materials. The Kids' Cottage features a straw bale wall covered with earthen plaster, compressed earth block and wattle & daub walls, wooden timbers and an authentic thatched roof. Through active teaching and hands-on learning, our curriculum offers students awareness of natural building practices and sustainable agriculture.

*Focus: human/environment interaction · habitats · life requirements · characteristics of places · earth materials*

## **FUN ON THE FARM**

**INDOOR/OUTDOOR • \$5 PER CHILD • 10 CHILDREN MINIMUM**

**PRESCHOOL – 1ST GRADE • 1½ HOUR**

Now available to private groups, the Fun on the Farm program is a popular series of programs especially for the little ones. We will have story time, a craft, and an activity all focused around a farm theme of your choice. Possible themes include farm animals like horses, cows, chickens, sheep, goats, and pigs to farm tractors. Seasonal themes such as maple sugaring, spring farm babies, and pumpkins may also be possibilities depending on the timing of the event.

*Focus: can be customized to fit the interests or curriculum of the group or class*



## **FALL PROGRAMS**

### **HARVEST ADVENTURE**

**SEPTEMBER & OCTOBER • OUTDOOR • 2ND GRADE & UP • 2 HOURS**

Have fun while exploring plant life cycles and animal diversity. During this special two-hour program students will take a walk and a wagon ride to observe fall changes on the farm, make a fall print T-shirt\*, and help turn apples into cider and taste the results.

*\*Kids must bring their own white or light-colored T-shirt*

*Focus: plant parts & function · plant life cycles · identify the needs of plants · animal life cycles · structures and functions*

## **WINTER PROGRAMS**

### **MAPLE SUGARING**

**MARCH • 3RD – 6TH GRADE • 1 HOUR**

Students will discover how unique maple sugaring is to this region and why. This program includes tapping a maple tree, watching the process of turning sap into syrup and a tour of a Native American sugaring camp. Students will achieve a higher level of understanding and respect toward the environment and the contributions of Native American people.

*Focus: American Indian stories · plant parts & functions · weather · seasons · plant life cycles · how people use the environment*

### **MAPLE SUGARING FOR LITTLE ONES**

**MARCH • PRESCHOOL – 2ND GRADE • 1 HOUR**

Younger students will discover maple sugaring in a format better suited for their learning level, while still including tapping a maple tree and the magic of turning sap into syrup. Students will also get to visit and interact at a Native American sugaring camp.

*Focus: seasons · plant parts & functions · identify the needs of plants · American Indian stories*





## SPRING/FALL PROGRAMS

### FARMER FOR A DAY

**JUNE – NOVEMBER • OUTDOORS • 3RD GRADE & UP • 5 HOURS • \$40 PER CHILD (5 CHILDREN MINIMUM)**

For private groups, we are offering the same popular program that we offer to the public in July and August. Designed to be educational and fun, this program allows kids, ages 8 to 15 years old, the chance to work alongside our farmers taking care of animals. Each program includes a chance to meet all of the farm's animals. Kids will perform hands-on tasks such as feeding and watering animals, mucking stalls and hauling hay and grain sacks. They will also get a chance to make a tasty farm food product such as ice cream, bread, or cider.

*Focus: can be customized to fit the interests or curriculum of the group or class*

### FARMER JUNIOR

**JUNE – NOVEMBER • OUTDOORS • 1ST – 2ND GRADE • 3 HOURS  
\$30 PER CHILD (5 CHILDREN MINIMUM)**

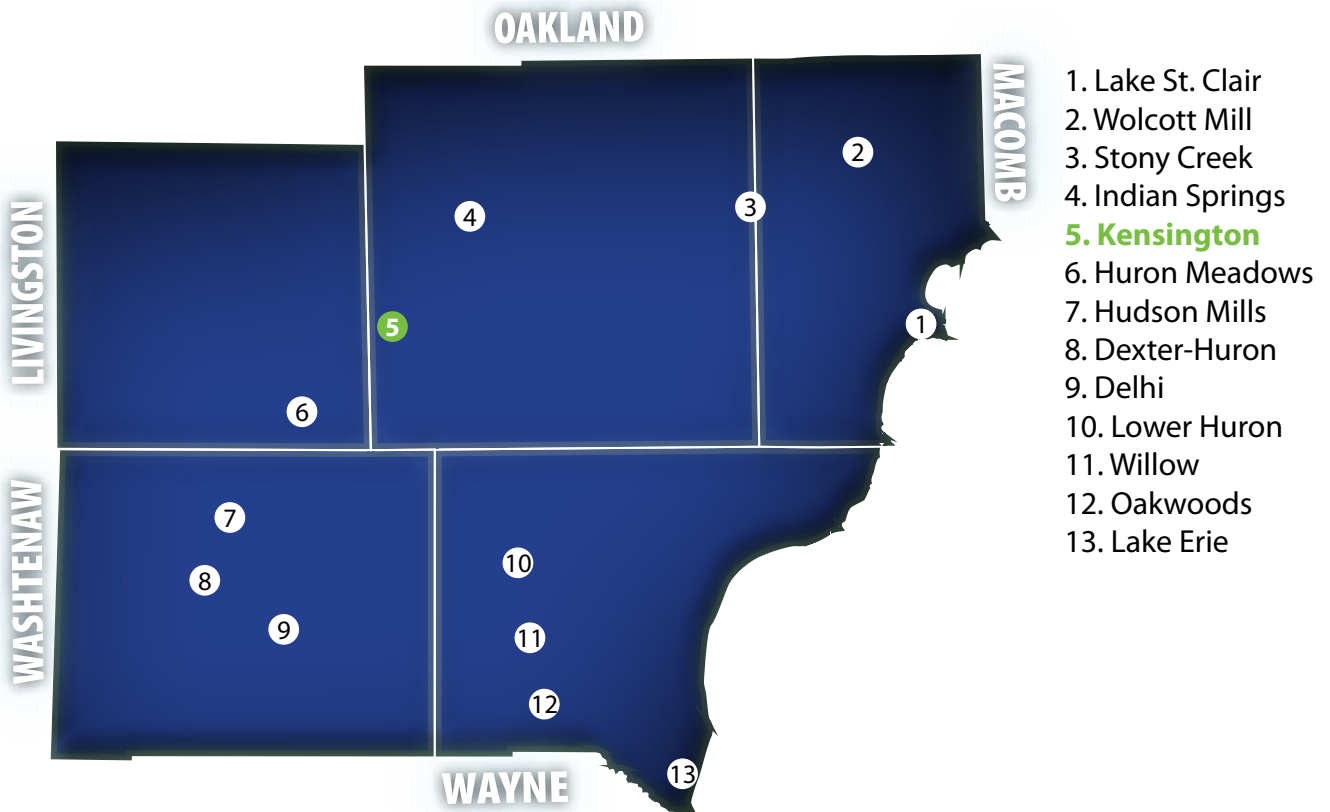
For private groups, we are offering the same popular program that we offer to the public in July and August. Now kids ages 6-8 get their chance to work at the farm! If your children have the energy and enthusiasm for farm chores, but maybe not the muscle power yet, this is their program! Similar to our popular "Farmer for a Day" but designed for the capabilities of younger kids, Farmer Jr. has kids work alongside Kensington Farmers to learn about life on the farm: meeting and feeding animals, hauling straw, doing chores and having fun! They will also get a chance to make a tasty farm food product such as butter, bread, cider, etc.

*Focus: can be customized to fit the interests or curriculum of the group or class*



# KENSINGTON METROPARK NATURE CENTER

810-227-8917 • 2240 West Buno Road, Milford, MI 48380



A complement to Kensington Metropark's seven miles of nature trails, the Nature Center offers exhibits to help explore the wildlife of the park. Visit live animals such as reptiles, fish, and Ranger the Red-tailed hawk. Two classrooms provide indoor presentation areas and seasonal trail explorations round out your experience. Hand-feed small songbirds like chickadees or the fish in Kingfisher Lagoon. Shop for gifts, snacks, or a hot drink at the gift shop.

Programs may also be adapted for your facility. Call for details.





## FALL PROGRAMS

### ONE LEAF, TWO LEAF, RED LEAF, BLUE LEAF?

**OUTDOORS • PRESCHOOL & KINDERGARTEN • 1 HOUR**

Why do leaves change color? Why do some trees lose their leaves? We'll search for clues: leaf colors, shapes and seeds to solve the mysteries of the trees.

*Focus: plant parts & function · plant life cycles · identify the needs of plants*

### FALL'S THE TIME TO GET READY

**INDOORS • PRESCHOOL & KINDERGARTEN • 1 HOUR**

All the animals are busy getting ready for winter. Students will learn about all the fall preparations necessary for animals to survive the coming winter. Students will have a chance to interact with live animals.

*Focus: characteristics · habitats · classification · life requirements · adaptations*

### FALL COLORS

**OUTDOORS • 1ST GRADE & UP • 1 HOUR**

There is an explosion of color in the fall. Experience color change and falling leaves while hiking through several different habitats. We will have songs, stories, puppets, and even a live animal or two.

*Focus: plant parts & function · plant life cycles · identify the needs of plants*

### AUTUMN ANIMALS

**INDOORS • 1ST GRADE & UP • 1 HOUR**

Experience the needs of animals and their survival strategies as they prepare for the coming winter. Students will have a chance to interact with live reptiles. We will have songs, stories, and puppets.

*Focus: characteristics · habitats · classification · life requirements · adaptations · ecosystems*



## WINTER PROGRAMS

### MY LITTLE CHICKADEE

**OUTDOORS • PRESCHOOL & KINDERGARTEN • 1 HOUR**

In winter, some songbirds at Kensington Metropark will actually take sunflower seeds from your hands! Introduce your little chickadees to ours, as we observe these amazing creatures in action. Seed will be provided.

*Focus: characteristics · habitats · classification · life requirements · adaptations*

### ANIMALS IN WINTER

**INDOORS • PRESCHOOL & KINDERGARTEN • 1 HOUR**

The kids are wearing their winter clothes, so are the animals. Find out how animals stay safe and cozy all winter long. Students will have a chance to interact with live animals.

*Focus: characteristics · habitats · classification · life requirements · adaptations*

### CHICKADEE CHOWDOWN

**OUTDOORS • 1ST GRADE & UP • 1 HOUR**

Not all birds migrate to survive the winter. See who's still here and what it takes for them to get through the winter. Includes hand-feeding of birds. Seed will be provided.

*Focus: species adaptation & survival · structures & function · classification · environmental adaptation · ecological relationships*





## WINTER WILDLIFE

### INDOORS • 1ST GRADE & UP • 1 HOUR

Learn about the basic needs of animals in winter and the characteristics and behaviors that help them survive. Students will have a chance to interact with live reptiles. We will have songs, stories, and puppets.

*Focus: characteristics · habitats · classification · life requirements · adaptations · ecosystems*

## WINTER WALK

### OUTDOORS • 1ST GRADE & UP • 1 HOUR

Become nature detectives and find tracks and signs of the common birds and mammals of Kensington Metropark. Includes hand-feeding of birds.

*Focus: species adaptation & survival · ecological relationships · food webs · ecosystems*

## WINTER ADVENTURE ANIMAL TRACKING

### INDOORS & OUTDOORS • 3RD GRADE & UP • 1 – 1½ HOURS

Learn tracks, signs and scat of some of the common birds and mammals of Kensington. Indoors, students will solve track mysteries and practice animal movements, followed by an outdoor scavenger hunt to look for winter animal clues. Optional: Bring a white T-shirt and make an animal track T-shirt for \$1 extra per person.

*Focus: identify basic needs · identify & compare living and non-living things · food webs · ecological relationships*

## WINTER ADVENTURE WINTER SURVIVAL

### INDOORS & OUTDOORS • 3RD GRADE & UP • 2 HOURS

Your class will practice basic survival skills, such as compass use, in the safety of the Nature Center classroom. Then head outside to try out their skills. While learning what is needed to build a fire (O<sub>2</sub>, ignition source, fuel) or a survival shelter (why size and materials matter).

*Focus: Identify basic needs · human/environment interaction · species adaptation & survival · environmental adaptation · ecological relationships*

## SPRING PROGRAMS

### SPRING IS HERE

#### INDOORS • PRESCHOOL & KINDERGARTEN • 1 HOUR

It sure is noisy out there and it's all due to the weather. Find out what all the shouting is about. We will have songs, stories, puppets, and even a live animal or two.

*Focus: characteristics · habitats · classification · life requirements · adaptations*

### SING 'N SPRING

#### OUTDOORS • PRESCHOOL & KINDERGARTEN • 1 HOUR

"Peep, peep!" – What was that sound? Do I smell a skunk? Discover the sights, sounds and smells of nature in spring. The perfect companion to "Spring is Here".

*Focus: characteristics · habitats · classification · life requirements · adaptations*

### CRITTER CONVERSATIONS

#### OUTDOORS • 1ST GRADE & UP • 1 HOUR

Listen to all that springtime animal chatter! Birds are singing and frogs are calling. While on a hike, students will discover what some of the animal sounds mean and seek out nesting birds.

*Focus: species adaptation & survival · ecological relationships · food webs · human impact on the environment*





## **SPRING SYMPHONY**

**INDOORS • 1ST GRADE & UP • 1 HOUR**

Many animals are singing and calling this time of year. What are the birds and frogs saying? Spring is the time to find out. Students will sing in a “frog chorus” and interact with live reptiles.

*Focus: characteristics · habitats · classification · life requirements · adaptations · ecosystems*

## **CAUSE & EFFECT: BLUEBIRDS**

**MARCH 15 – JUNE • INDOORS & OUTDOORS • 3RD GRADE & UP • 1 HOUR**

Explore human/environment interactions with a look into the lives of bluebirds. Students will gain an understanding of ecology concepts through hands-on investigation of bird life cycles and their surprising interdependent relationships with humans, plus a hike on a bluebird trail to search for live bluebirds and peek inside an active nest box.

*Focus: life requirements · life cycles · human/environment interactions · ecological relationships*

## **LIFE CYCLES OF THE TALL & FEATHERED**

**APRIL – JUNE • INDOORS & OUTDOORS • 3RD GRADE & UP • 1 HOUR**

We’ll delve into the life cycles and physical adaptations of herons and cranes, then hit the trail for a guided hike to the nearby heron rookery. Students will use spotting scopes to observe nesting herons in their natural habitat.

*Focus: adaptations · life requirements · life cycles · ecological relationships · human/environment interactions*



## **FALL/SPRING PROGRAMS**

### **PLANT PARTS & THEIR CYCLES**

**INDOORS & OUTDOORS • 1ST GRADE & UP • 1 HOUR**

Discover the parts of plants and their cycles. Discuss how a flower turns into a seed, how seeds travel and dress up a student to become a flower. Students will plant a seed to take home.

*Focus: plant parts & function · plant life cycles · identify the needs of plants*

### **WONDERFUL WETLANDS**

**OUTDOORS • 1ST GRADE & UP • 1 HOUR**

Discover what makes a wetland a wetland. Your students will tromp through a swamp, bounce on a bog and have fun in a fen while identifying several different types of Michigan wetlands. No worries... their feet will stay dry!

*Focus: habitats · classification · life requirements · adaptations · ecosystems*



### **POND ECOSYSTEM & LIFE CYCLES**

**MAY 1 – OCTOBER 31 • INDOORS • 1ST GRADE & UP • 1 HOUR**

The class will learn about animal structure and classification by playing identification games and exploring the life found in a pond first-hand. Students will have a chance to interact with live animals.

*Focus: environmental adaptations · food webs · structures & functions · classify animals*

### **LET’S GO FISHING**

**OUTDOORS • 3RD GRADE & UP • 1 HOUR**

Learn proper casting technique and then go fishing with the nature center’s rods and reels.

*Focus: environmental adaptations · food chains · structures & functions · classify animals*



## EDVENTURES

EDventures are educational programs that can be adapted to your location. Choose any program listed in this brochure for your classroom and/or outside in your special habitat. Listed below are some of the most popular EDventures, but others listed can be adapted for your location.

### WINTER WILDLIFE

**YEAR-ROUND • INDOOR • PRESCHOOL & UP • 1 HOUR**

Learn about the basic needs of animals in winter and the characteristics and behaviors that help them survive. Students will have chance to interact with live reptiles.

*Focus: characteristics · habitats · classification · life requirements · adaptations · ecosystems*

### AMAZING ADAPTATIONS

**YEAR-ROUND • INDOOR • 1ST GRADE & UP • 1 HOUR**

Using mounts and hands-on activities, we'll take a look at how adaptations help shape the way an animal looks and acts. Students will work together to create animals using an understanding of various adaptations.

*Focus: characteristics · adaptations · predator-prey · ecosystems*

### POND ECOSYSTEMS & LIFE CYCLES

**MAY 1 – OCTOBER 31 • INDOORS • 1ST GRADE & UP • 1 HOUR**

The class will learn about animal structure and classification by playing identification games and then explore pond life first-hand.

*Focus: environmental adaptations · food chains · structures & functions · classify ecosystems*



### RAPTOR SURVIVAL

**YEAR-ROUND • INDOORS • 1ST GRADE & UP • 1 HOUR**

We'll investigate the various adaptations of birds of prey and the role they play in the environment with hands-on activities including live animals. You'll meet Ranger, the red-tailed hawk that makes his home at the nature center.

*Focus: adaptations · classifications · characteristics · life requirements · predator-prey · human/environment interactions*

### FOOD CHAINS: WHAT'S FOR DINNER

**YEAR-ROUND • INDOORS • 1ST GRADE & UP • 1 HOUR**

Watch the food chain in action and discover animal interdependence. Students will act out a food chain and observe live animal interactions to gain an understanding of the connections between parts of a food chain. This program features a visit with Ranger, a live red-tailed hawk.

*Focus: adaptations · classifications · characteristics · life requirements · predator-prey · human/environment interactions · trophic levels*

### SPRING SYMPHONY

**SPRING • INDOOR • 1ST GRADE & UP • 1 HOUR**

Many animals are singing and calling this time of year. Want to know what the birds and frogs are saying? Spring is the time to find out. Students will sing in a "frog chorus" and interact with live reptiles and amphibians.

*Focus: characteristics · classification · adaptations · ecosystems · habitats · life requirements*





## **MICHIGAN PIONEERS**

**YEAR-ROUND • INDOORS • 3RD GRADE & UP • 1 HOUR**

In the early 1800s, moving to Michigan to start a new life presented unique challenges. This program will focus on daily activities, tools, crops, travel and pastimes of Michigan's early pioneers. First person interpretation and hands-on activities help bring history alive.

*Focus: time & chronology · comprehending the past · diversity of people, places & cultures · human/environment interaction · location, movement & connections*

## **FRENCH VOYAGEURS**

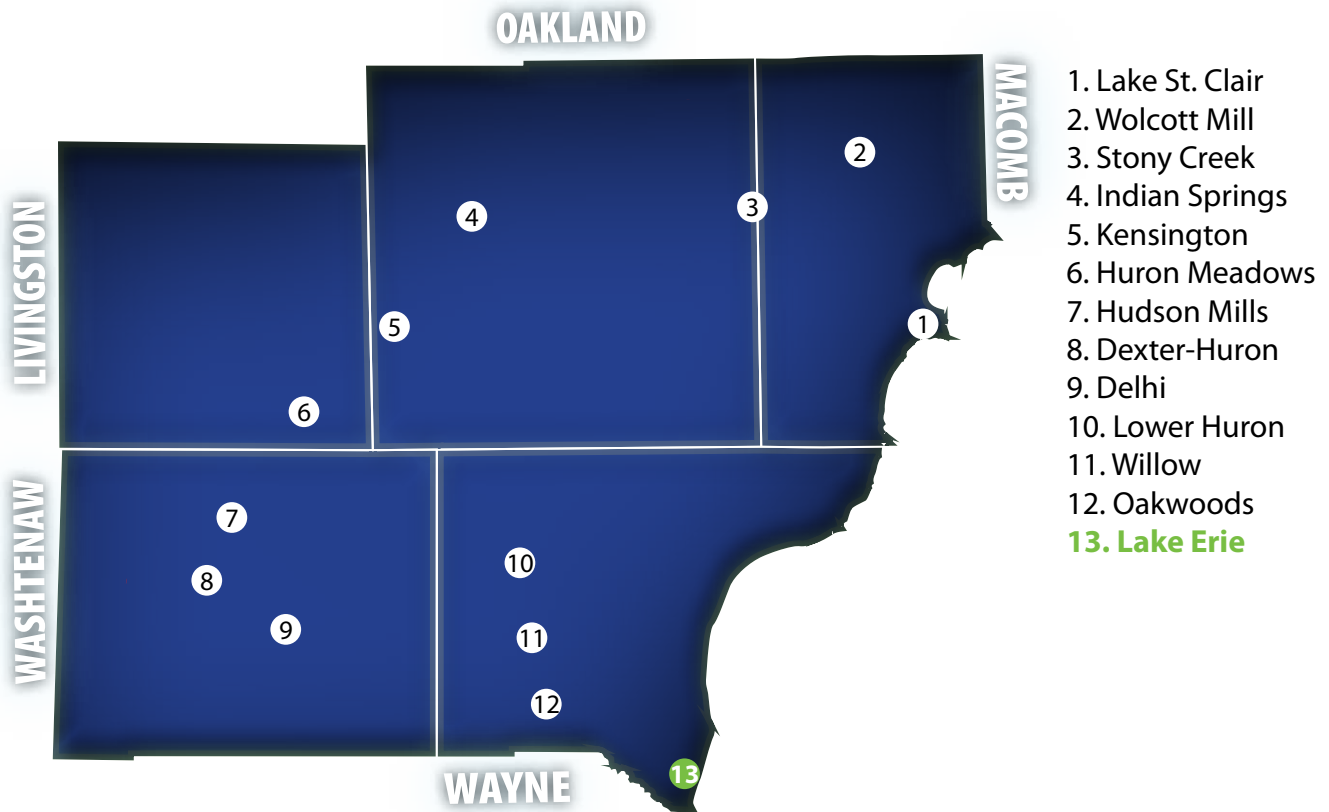
**YEAR-ROUND • INDOORS • 3RD GRADE & UP • 1 HOUR**

Travel back in time and experience the Great Lakes fur-trade era from the mid-17th through the 19th century. We'll focus on the everyday life of voyageurs using first person interpretation and hands-on activities featuring furs and trade goods.

*Focus: time & chronology · comprehending the past · judging decisions from the past · diversity of people, places & cultures · human/environment interaction*

# LAKE ERIE METROPARK MARSHLANDS MUSEUM

734-379-5020 • 32481 W. Jefferson, Brownstown, MI 48173



Offering spectacular views of the Detroit River and Lake Erie, Lake Erie Metropark is home to the Marshlands Museum, where nature and history come to life. The Museum hosts programs for school groups, homeschoolers, families, scouts, adults and community groups. Programs are by appointment and are usually offered year-round, unless otherwise noted. After your Museum visit, enjoy activities such as picnicking, the pool, the tot-lot and more.





## PRESCHOOL

### FROG FUN

**YEAR-ROUND • 1 HOUR**

This is an introduction to some of the plants and animals found in a marsh (Marsh Menagerie) with special attention to frogs. Touch a real frog, try some frog dress-up and finish with a make-and-take frog mask. We offer a version for 3-year-olds, with a simpler craft, upon request.

*Focus: basic needs · observable traits · food webs · adaptations · life cycles*

## KINDERGARTEN

### GOING BUGGY

**YEAR-ROUND • 1 HOUR**

This is an introduction to some of the basic marsh plants and animals (Marsh Menagerie) with special attention to the many kinds of insects found here. Try insect dress-up, and create a make-and-take dragonfly mask.

*Focus: basic needs · observable traits · food webs · adaptations · life cycles*



## FIRST GRADE

### FURRY FRIENDS

**YEAR-ROUND • 1 HOUR**

This is a re-introduction to marsh plants and animals (Marsh Menagerie), with special attention on mammals such as muskrat, mink, opossum and raccoon. Make-and-take track bookmarks are included.

*Focus: basic needs · adaptations · life cycles · characteristics*

## SECOND GRADE

### FEATHERED FRIENDS

**YEAR-ROUND • 1 HOUR**

This is a re-introduction to the marsh plants and animals (Marsh Menagerie) with special attention on bird adaptations – beaks and feet. Create a make-and-take Egret mask.

*Focus: basic needs · observable traits · adaptations · life cycles · characteristics*



### HOME SWEET HABITAT

**YEAR-ROUND • 1 HOUR**

Explore the wet 'n wild world of the coastal marsh. Discover the plants and animals that live here through specimens and live examples. Build a marsh food web in which every student plays a part.

*Focus: habitats · food webs · ecosystems · adaptations*

### GREEN SCENE

**YEAR-ROUND • 1 HOUR**

Get to know plants through their leaves, flowers and seeds and discover why life would be impossible without them. Make a maple seed copter flier and send it on its maiden flight.

*Focus: plant characteristics · life cycles · adaptations · water*





## THIRD GRADE

### WOODLAND INDIAN WAYS

#### YEAR-ROUND • 1 HOUR

Discover the lifeways of the Woodland Indians as they were a thousand years ago. What did they wear? What did they eat? What kinds of pets did they have?

*Focus: Michigan history · human impacts on nature · natural resources*

### SCALES & SLIME

#### YEAR-ROUND • 1 HOUR

Frogs, salamanders, turtles, and snakes are the cold-blooded subjects of this program. Learn about protective colors, food habits and what it takes to be a reptile or amphibian. Enjoy “hands-on” activity with the real thing.

*Focus: observable traits · adaptations · life cycles · characteristics*

## FOURTH GRADE

### EAT OR BE EATEN

#### YEAR-ROUND • 1 HOUR

Discover the marshland world of predator and prey. Skulls, mounts, furs and a few live critters introduce animal adaptations, especially those relating to predators and their prey.

*Focus: predator/prey · adaptations · life requirements · producer, consumer, decomposer*



## FIFTH GRADE

### PEOPLE & THEIR PLACES

#### YEAR-ROUND • 1 HOUR

Investigate actual artifacts, do some dress-up and learn about the lifeways of those who were here long before us. Lessons include resource use and environmental change, and local Michigan history with a bit of role playing. Choose between “War of 1812 Soldier” and “Fur Trade Era.”

*Focus: Michigan history · natural resources · characteristics · traits*

### WATER INVESTIGATIONS

#### YEAR-ROUND • 1 HOUR

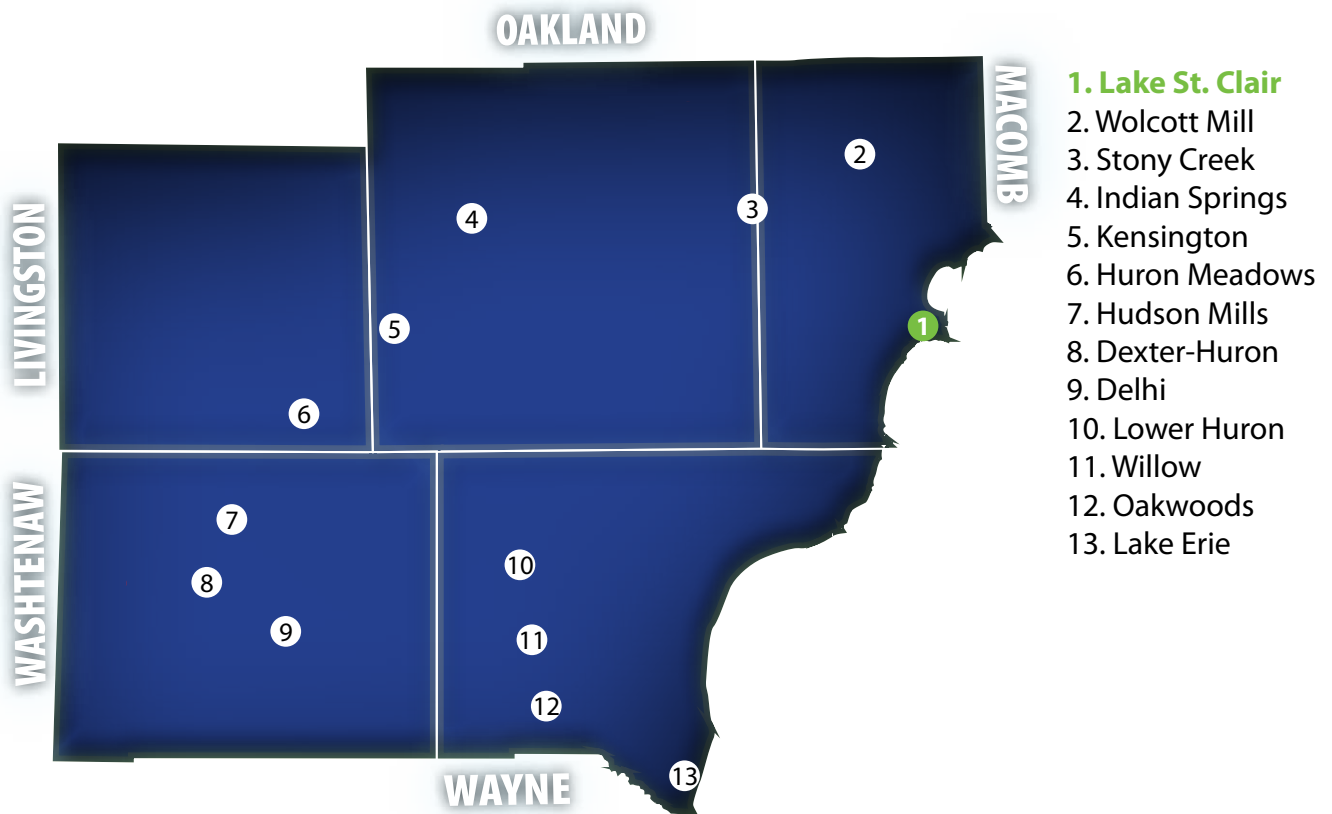
Look in detail at the underwater world of the marsh through aquatic sampling to discover micro-invertebrates, plants, and fish. This is an outside program with inside ability if weather isn't cooperative.

*Focus: adaptations · habitats · ecosystems · life cycles · food webs*



# LAKE ST. CLAIR METROPARK NATURE CENTER

586-463-4332 • 31300 Metro Parkway, Harrison Township, MI 48045



Nestled at the end of Metropolitan Parkway, in the heart of suburban Macomb County, Lake St. Clair Metropark offers visitors access to Lake St. Clair and the surrounding ecosystems. Lake St. Clair Metropark Nature Center hosts programs for school groups, homeschoolers, families, scouts, adults and community groups. Programs are by appointment and are usually offered year-round, unless otherwise noted.

Make a day of it! While at the park, visit the Play Area, Squirt Zone, beach, and picnic areas.





## YEAR-ROUND PROGRAMS

### ANIMAL GROUPS

#### ALL AGES • 1½ HOURS

In this program about animals, we will focus on one of two areas – one group of animals (mammals, birds, reptiles, amphibians, fish or insects) to find out how they are classified and how they survive, thrive, and continue from generation to generation or compare and contrast several groups, such as vertebrates and invertebrates.

*Focus: classification • characteristics • life cycles • adaptations*

### HABITATS ARE HOMES

#### ALL AGES • 1½ HOURS

Every living thing needs a few basics – water, food, shelter – and people are no exception! Find out how local area plants and animals obtain what they need and some of the clever ways that they do it. Then use your new knowledge to find animal homes along the trail.

*Focus: needs of living things • adaptations • habitats*



### PLANT LIFE

#### ALL AGES • 1½ HOURS

Plants are not able to move, so they have developed an interesting variety of adaptations to survive Michigan's climate and use by animals. People also need plants for a variety of uses.

*Focus: classification • life cycles • adaptations*

### POND LIFE & WETLAND WILDLIFE

#### ALL AGES • 1½ HOURS

Many animals spend all or part of their life in and around the water. Learn more about their adaptations and how they interact with one another and their environment.

*Focus: food webs • adaptations • life cycles • water as a resource • human impact on the environment*

### SIGNS OF THE SEASON

#### PRESCHOOL – SECOND GRADE • 1½ HOURS

Learn what to look for, then use your senses and observation skills along the trail.

*Focus: observing the natural world using senses & simple tools • life cycles • needs of living things • adaptations*



### ECOSYSTEMS ALL AROUND

#### 4TH GRADE & UP • 1½ HOURS

What is an ecosystem? How are ecosystems different from one another? How do plants and animals in an ecosystem interact? Explore the ecosystems along the trail while we investigate the answers to these questions.

*Focus: ecosystems • food webs and other relationships • human impact on the environment*



## **WETLANDS ARE WONDERFUL**

### **4TH GRADE & UP • 1½ HOURS**

Water covers more than 2/3 of the Earth and is essential for all living things. Wetlands are the place where the land meets the water – and the wildlife hangs out! Learn how important this ecosystem is, what animals we often find there and how they interact with one another. This program is also offered in conjunction with Michigan Sea Grant's Great Lakes Education Program (GLEP). [www.miseagrant.umich.edu/glep](http://www.miseagrant.umich.edu/glep)

*Focus: food webs • adaptations • life cycles • water as a resource • human impact on the environment*

## **ANIMAL ADAPTATIONS**

### **ALL AGES • 1½ HOURS**

Animals have special structures or behaviors that help them find food, build shelters and to help protect themselves. Learn about animal adaptations indoors through use of taxidermy mounts and activities, then hike the trails to search for animals in their environment to see how they use these adaptations for survival.

*Focus: structures and functions • classification • environmental adaptations*

## **FALL PROGRAMS**

### **ANIMALS PREPARE FOR WINTER**

#### **PRESCHOOL – 2ND GRADE • 1½ HOURS**

Animals have a variety of adaptations and behaviors to help prepare themselves for our Michigan winters, by migrating, hibernating, or stay active and toughing it out.

*Focus: observing the natural world using senses & simple tools • life cycles • needs of living things • adaptations*

## **WINTER PROGRAMS**

### **WINTER WILDLIFE SURVIVAL**

#### **ALL AGES • 1½ HOURS**

Animals have a variety of adaptations and behaviors to survive Michigan's winter. Find out how they do it, then look for signs of animals along the trails.

*Focus: observing the natural world using senses & simple tools • life cycles • needs of living things • adaptations*

### **PREDATOR-PREY ADVENTURE**

#### **JANUARY – MARCH • 4TH GRADE & UP • 2½ HOURS**

In this special program, students play "nature detective" to determine the identity of a mystery animal, meet its nearest relatives, and find out how it survives. We might even see signs of its presence along the nature trails!

*Focus: populations • food webs • characteristics of animals & identification using observation skills*

## **FALL/SPRING PROGRAMS**

### **LIFE CYCLES**

#### **MID APRIL – OCTOBER • ALL AGES • 1½ HOURS**

In spring, the birds are singing (and so are the frogs), insects are humming, plants are budding and life continues anew. Each animal and plant begins a family in its own way. Later in the year, amphibians and insects are transforming and seeds are dispersing. You will learn how, then hike the trails with your senses on the alert!

*Focus: needs of living things • adaptations • life cycles*



## **VOYAGEUR CANOE RIDES**

**LATE APRIL – OCTOBER • \$75/CANOE OUTING • 3RD GRADE & UP  
12 STUDENTS & 6 CHAPERONES/CANOE • 1½ HOURS**

Weather and lake level dependent, PFD's & paddles provided.

*CHOOSE A PROGRAM EMPHASIS:*

### **PADDLE THROUGH THE MARSH**

Paddle through the marsh on our 34-foot Voyageur canoe. We will discover the wildlife that live in the wetland.

*Focus: ecosystems • adaptations • food webs & other relationships • human impact on the environment*

### **FRENCH VOYAGEURS & THE FUR TRADE**

Now calling all prospective voyageurs! Sign up for a “voyage” through the marsh paddling our 34-foot Voyageur canoe after you have discovered what life was really like for these intrepid travelers.

*Focus: Michigan history & the fur trade era*

## **EDVENTURES**

EDventures are educational programs that can be adapted to your location. Choose any program listed in this brochure for your classroom and/or outside in your special habitat. Listed below are some of the most popular EDventures, but others listed can be adapted for your location.

### **THE WONDERS OF WETLANDS**

**ALL AGES • 1 HOUR**

Wetlands are the place where the land meets the water-and the wildlife hangs out! Learn how important this ecosystem is, what animals we often find there and how they interact with one another.

*Focus: food webs • adaptations • water as a resource • human impact on the environment*

### **ANIMAL ADAPTATIONS**

**ALL AGES • 1 HOUR**

Animals have special structures or behaviors that help them find food, build shelters and protect themselves. Learn how they use these adaptations for survival in their habitats.

*Focus: structures and functions • classification • environmental adaptations*

### **BIRDS AND MIGRATION**

**4TH GRADE & UP • 1 HOUR**

Learn about the migration of birds through activities to explore where they go, the distances they travel, and the perils they meet along the way. Discover why Lake St. Clair is such an important stop off area on their journey.

*Focus: adaptations • habitat • life requirements • life cycles • map reading*

### **MICHIGAN FUR TRADE HISTORY**

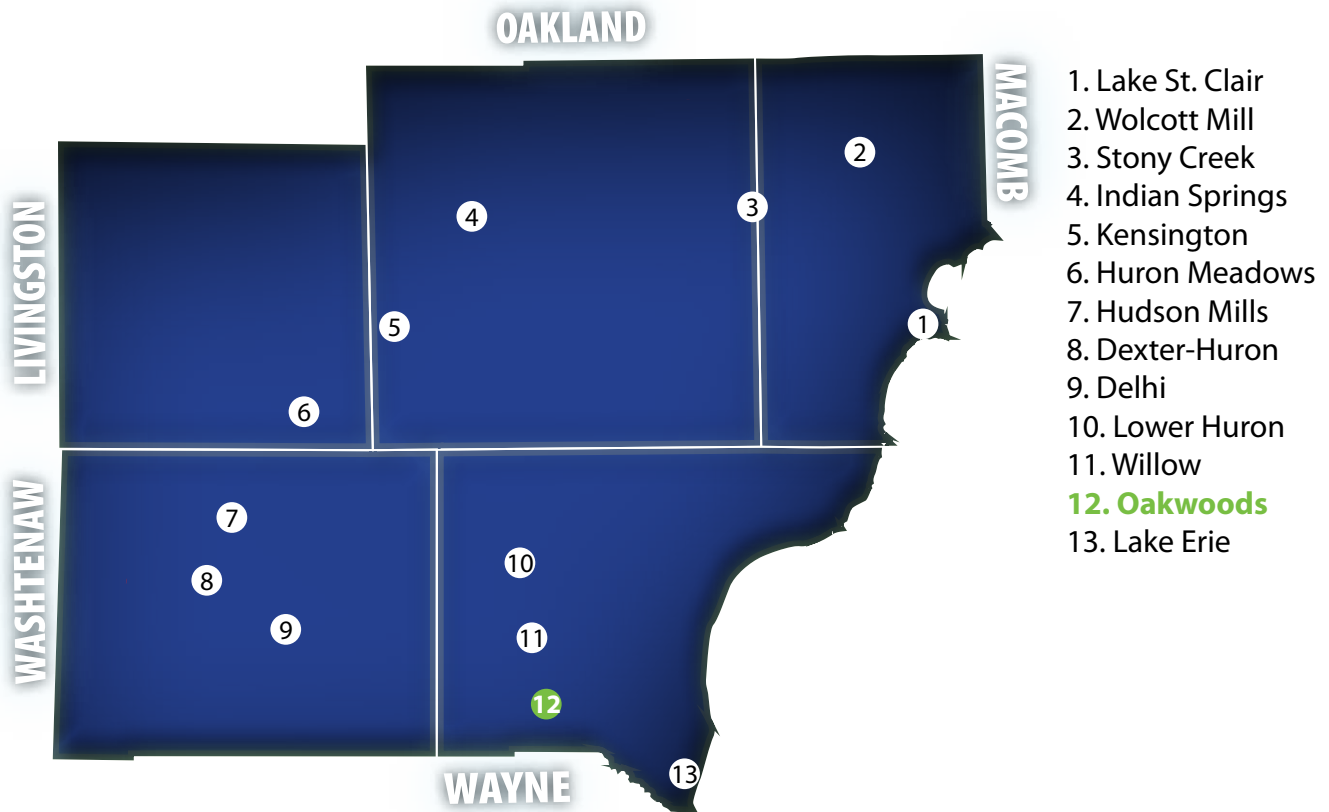
**3RD GRADE & UP • 1 HOUR**

The canoeing skills, and determination of the French Voyageurs brought the explorers, missionaries, fur traders, and settlers to the Michigan lands. We'll learn about their daily lives and importance of their contributions to Michigan's history. Objects and artifacts will be used and one of your students will be dressed up as a Voyageur.

*Focus: Michigan fur trade history*

# OAKWOODS METROPARK NATURE CENTER

734-782-3956 • 32911 Willow Road, New Boston, MI 48164



Situated along the beautiful Huron River, the Oakwoods Metropark Nature Center offers an “Up-North” feel in the heart of southeast Michigan. The Nature Center hosts programs for school groups, homeschoolers, families, scouts, adults, and community groups. Programs are by appointment and are usually offered year-round, unless otherwise noted. Your group can also visit nearby Willow Metropark and enjoy activities such as picnicking, the pool, the tot-lot, and more.





## PRESCHOOL

### ANIMALS OF OAKWOODS

**YEAR-ROUND • 1 HOUR**

Students will be introduced to the animals that live right in their own backyard through the use of study skins, mounts and live animals.

*Focus: basic needs · habitat · adaptations · observable traits*

## KINDERGARTEN

### TURTLES & SNAKES

**YEAR-ROUND • 1 HOUR**

This program focuses on the unique reptiles that are found in our area. Live animals are used during this program.

*Focus: adaptations · observable traits · life cycles*

## FIRST GRADE

### WHO LIVES WHERE?

**YEAR-ROUND • 1 HOUR**

This fun program focuses on habitats and the animals that use them. Included, is an introduction to food chains.

*Focus: habitats · adaptations · life cycles · food webs*



## SECOND GRADE

### BIRDS OF A FEATHER

**YEAR-ROUND • 1 HOUR**

Discover what makes birds so special as we compare different species while focusing on their adaptations.

*Focus: life cycles · observable traits · life functions*

## THIRD GRADE

### ANIMAL ADAPTATIONS

**YEAR-ROUND • 1 HOUR**

This program is designed to get kids thinking about the special attributes that make every animal unique. Also, touches on habitats and food chains.

*Focus: adaptations · observable traits · form & function · producer, consumer, decomposer*



## FOURTH GRADE

### PREDATOR & PREY

**YEAR-ROUND • 1 HOUR**

Find out who survives in the struggle for food. What adaptations are found in predatory animals? What clever ways do prey animals use to protect themselves? All are discussed during this interactive program.

*Focus: adaptations · food webs · individual differences · basic needs*



## FIFTH GRADE

### WETLAND WONDERS

**YEAR-ROUND • 1 HOUR**

Explore the plants and animals that thrive in a wetland habitat, and discover the life strategies, adaptations, and food chains that allow them to live in this habitat.

*Focus: ecosystems · food · webs · adaptations · producer, consumer, decomposer*

## FALL PROGRAMS

### AUTUMN ADVENTURE

**MID-SEPTEMBER – OCTOBER • ALL AGES • 1½ HOURS**

This program is designed to immerse the kids in the sights, smells, and tastes of autumn. The children will enjoy a hayride, cider pressing, cider, and donuts, leaf printing and an optional autumn hike. We can accommodate two classes per day. Each class (up to 30 students) will be split into two groups.

*Focus: seasons · characteristics of plants · life cycles*



## WINTER PROGRAMS

### WINTER ADVENTURE

**JANUARY – FEBRUARY • 4TH GRADE & UP • 3 HOURS**

The day begins with a winter ecology hike and is followed up with activities including a winter pond study, a winter survival program, and more. This program involves significant time outdoors and proper winter attire is required.

*Focus: seasons · adaptations · life cycles*

### MAPLE ADVENTURE

**MID-FEBRUARY - MARCH • ALL AGES • 1½ HOURS**

Discover the rich (and sweet) history of Maple Sugaring in Michigan. Learn how the process of collecting sap and making syrup has not changed much over time; and see how maple syrup helped shape our region. This program includes an optional breakfast for a minimal, additional fee.

*Focus: ecosystems · food · habitats*

## FALL/SPRING PROGRAMS

### RIVER ECOLOGY EXPERIENCE

**3RD GRADE & UP • 1½ HOURS**

This tour emphasizes the flora and fauna of the Huron River, which is broken into two unique experiences, featuring an interactive pond study.

*Focus: ecosystems · habitats · adaptations · resources · erosion*

### VOYAGEUR EXPERIENCE

**3RD GRADE & UP • 1½ HOURS**

This tour will be emphasizing the fur trade era, which is broken into two unique experiences featuring an interactive, onshore program.

*Focus: Michigan history · fur trade*

### VOYAGEUR CANOE RIDES

**MID-MAY – EARLY OCTOBER • 3RD GRADE & UP • 1–1½ HOURS**

**12 STUDENTS & 6 ADULT CHAPERONES/CANOE**

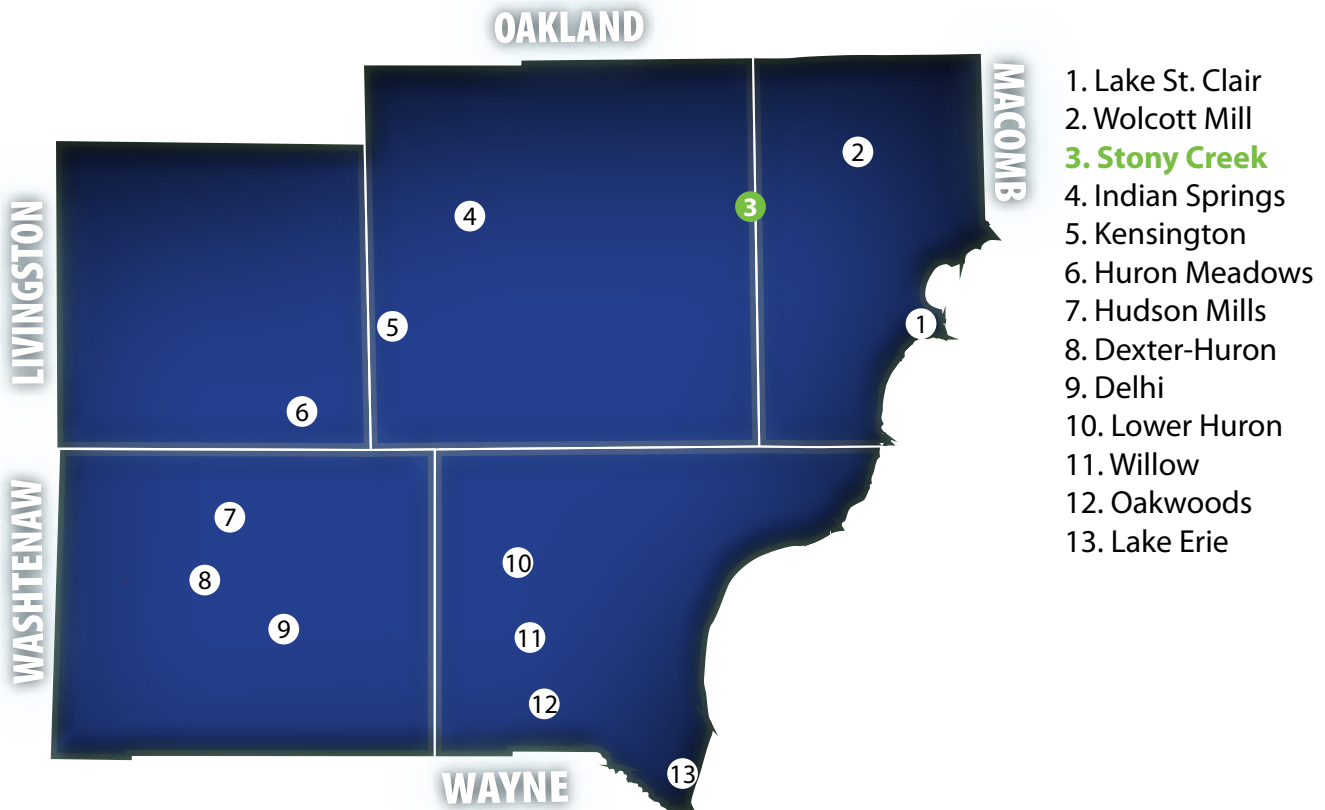
The Voyageur Canoe is a 34-foot, 18-passenger canoe. Availability and times are dependent on themes.





# STONY CREEK METROPARK NATURE CENTER

586-781-9113 • 4300 Main Park Road, Shelby Township, MI 48316



A visit to the Stony Creek Metropark Nature Center can reinforce science and history Grade Level Content Expectations (GLCE) in fun and entertaining ways. With the use of live exhibit animals and a guided trail walk, the park interpreter will spend time with your class focusing on concepts that best fit your curriculum such as life cycles, habitats, food chains, adaptations of plants and animals, classification, and human impact on the environment.





## YEAR-ROUND PROGRAMS

### PLANTS AND INSECTS

**ALL AGES • 1½ HOURS**

Flowers are not just sitting there looking pretty. They have a job. Students will discover what that job is and why insects are so important for them.

*Focus: relationships of organisms • life cycle • food chain • classification*

### ECOSYSTEMS

**ALL AGES • 1½ HOURS**

Students will get a chance to see how organisms interact, learn how populations of animals affect ecosystems and how we impact these systems.

*Focus: interactions of organisms • relationships or organisms • adaptation • populations*

### CLASSIFICATION

**ALL AGES • 1½ HOURS**

We'll use the nature center's critters and artifacts to discover the similarities and differences of classes of animals. Reptiles, amphibians, birds, mammals, and fish will be the focus.

*Focus: classification • adaptation • life cycles*

### AN INSECT'S LIFE

**ALL AGES • 1½ HOURS**

Through hands-on activities we'll focus on the life of insects, from egg to adult. Then we'll go outside in search of these insects and the places they call home.

*Focus: life cycles • life requirements*



### PREDATOR/PREY

**ALL AGES • 1½ HOURS**

Students will get a chance to learn about predation and population dynamics with a walk through the forest, a game and an interactive discussion.

*Focus: relationship of organisms • interactions or organisms*

### LIFE IN A POND

**1ST – 6TH GRADE • INDOORS & OUTDOORS • 1½ HOURS**

Student will get a chance to search a vernal pond with a net for macro invertebrates. They will learn first-hand about life cycles by seeing different stages of pond life. Students will get a chance to view this pond life up close through microscopes as they discover why these small critters are important to people.

*Focus: life cycles • human impact • classification • life requirements • food chain*





## FALL PROGRAMS

### AUTUMN ADVENTURE

**KINDERGARTEN – 4TH GRADE • OCTOBER • INDOORS & OUTDOORS  
3½ HOURS • \$7/STUDENT**

We can accommodate two classes of 25 people at each time. Lunch is not included. Students need to bring a bag lunch.

Autumn Adventure will introduce your group to the wonders of the fall season. During your 3½ hour appointment your group will take a leaf collection hike, then use the leaves to make a leaf identification book and create a leaf print T-shirt. Your group will also have the opportunity to press your own apple cider and enjoy a cup with some fresh donuts. Finally, take a tractor-drawn hayride on a scenic trail.

#### **LEAF HIKE & LEAF IDENTIFICATION BOOK**

This portion of the program consists of an outdoor hike where we will collect and learn about the leaves from many of our Michigan trees. After the group has learned how to identify the leaves they will complete a leaf identification book to take home with them as a reference guide.

#### **T-SHIRT PAINTING**

Using paint and leaf print stamps, the group will paint an autumn T-shirt. Students must bring their own white or light colored T-shirt for this activity.

#### **APPLE CIDERING**

Students participating in this activity will learn about “apples and bees” and pollination. The students will then take turns operating the cider press and make their very own apple cider! The Nature Center will provide fresh donuts for the students to enjoy with a cup of apple cider.

#### **WAGON RIDE**

Join one of our park interpreters on a scenic tractor-drawn wagon ride. Relax and enjoy the crisp autumn air from the cozy confines of our wagon. A great finish to a day filled with Autumn Adventure!

*Focus: adaptations • life cycles • life requirements • food webs • relationships of organisms*



## WINTER PROGRAMS

### WINTER ADVENTURE

**JANUARY & FEBRUARY • INDOORS & OUTDOORS • 2 HOURS • \$6/STUDENTS**

Students will have a unique opportunity to learn about natural and cultural history. Each session is truly an adventure! Afterwards, classes may stay for lunch.

For an additional \$3 per person (adults included), we provide a hot dog lunch with chips and hot chocolate. Students roast their own hot dogs outside around the fire circle.

#### **CHOOSE AN ADVENTURE FROM BELOW:**

##### **ANIMALS IN WINTER**

##### **KINDERGARTEN – 3RD GRADE**

What do animals do for winter? Students will get a discover ways animals survive during winter. On an outdoor hike, they'll look for tracks, scat, shelter and other signs of active animals. Inside, they'll use paint and track stamps, to create a winter scene on a white T-shirt. Students must bring their own white T-shirt for this activity.

*Focus: adaptations • life requirements, life cycles*

##### **HUMAN SURVIVAL**

##### **5TH & 6TH GRADE**

After learning a few basic elements of survival, the appropriate behavior when lost, the minimum essential equipment, and some simple knot tying techniques, the students are challenged in an outdoor scenario. Students will build a sled (travois) big enough to ride on and then transform it into a shelter. The program stresses listening skills, cooperation and teamwork.

*Focus: life requirements • adaptations*

##### **FIRST PEOPLE OF THE GREAT LAKES**

##### **3RD – 6TH GRADE**

Michigan was a land of glaciers, mastodons and giant beavers when the "First People" arrived here 12,000 years ago. As the climate, plants, and animals changed, so did the lives of the human inhabitants. Students will "hunt" caribou with "spears", play traditional games, and see a rich collection of artifacts. While working in small groups, they will visit various stations, which test their knowledge, and make them think and cooperate, and provide some hands-on opportunities.

*Focus: Michigan history • how Native Indians adapted to, used & modified their environment*



## SPRING PROGRAMS

### SPRING TO LIFE

**SPRING • 1½ HOURS**

Students will search for spring life, from frogs to plants to birds, and learn about their life cycles. Then they'll come inside and meet some of the nature center animals as they discover what they are doing during spring.

*Focus: life cycle • food chain • relationships of organisms*

## FALL/SPRING PROGRAMS

### THE GREAT VOYAGEUR CANOE

**LATE APRIL - JUNE AND SEPTEMBER - OCTOBER • 3RD GRADE & UP • OUTDOORS**

**1½ HOURS • \$75/RIDE**

Rides are 45 minutes to 1½ hours. We can accommodate one class of 36 people per day. There is a 12-person minimum and 18-person maximum per canoe. (6 people must be adults willing and able to paddle!)

Why do we have roads with names such as Dequindre and Livernois? The answer: Hats! Michigan history comes alive as students paddle a 34-foot, 20-passenger replica of a Voyageur canoe around the island in Stony Creek Lake. Artifacts and props help participants learn about the importance of the beaver to the French fur trade era.

*Focus: Michigan history & the fur trade era • food webs & other relationships*



## EDVENTURES

EDventures are educational programs that can be adapted to your location. Choose any program listed in this brochure for your classroom and/or outside in your special habitat. Listed below are some of the most popular EDventures, but others listed can be adapted for your location.

### WINTER WILDLIFE

**KINDERGARTEN – 2ND GRADE • 1 HOUR**

Do birds migrate because it's too cold? We'll uncover methods animals use for winter survival, such as migration and hibernation as well as adaptations that allow some animals to remain active. Students will have a chance to handle fur, feathers and visit with a live cold-blooded creature.

*Focus: adaptations • characteristics • classification*

### THE LIVES OF THE VOYAGEURS

**3RD GRADE • 1 HOUR**

The strong backs, canoeing skill, and determination of the French Voyageurs brought the explorer, missionaries, traders, and settlers to the land we call Michigan. We'll learn about their daily lives, importance of their contributions and dress up one of your students like a voyageur!

*Focus: Michigan history • French Fur Trade*





## THE EVERYDAY LIVES OF THE GREAT LAKES INDIANS

### 3RD GRADE • 1 HOUR

The Eastern Woodland Culture developed a stable society based on farming, hunting, fishing and trade. Details of their lives including housing, farming, weapon and tool manufacturing, hunting techniques, and trade will be featured along with actual artifacts.

*Focus: Michigan history • how Native Indians adapted to, used & modified their environment*

## ANIMALS HAVE CLASS

### 3RD GRADE • 1 HOUR

Although a mammal seems very different from a reptile, they do have something in common! Students will discover the differences and similarities of amphibians, reptiles, birds and mammals. They will get to visit with some living classroom guests as well as having an opportunity to handle furs, bones, and feathers!

*Focus: classification • adaptation • life cycles • food chain*

## MOTHER NATURE'S PAINT BOX

### 3RD & 5TH GRADE • 1 HOUR

Spots, stripes and colors displayed by various animals are actually visual signals that can attract attention or warn and confuse enemies. We'll examine what makes color, what sees color, and provide examples that illustrate how colors and markings help animals adapt to their environments. Mounted insects, study skins as well as other interesting items will be shared with your students.

*Focus: adaptation • food chain • interactions of organisms*



## THE FOOD CHAIN GOES ON AND ON...

### 4TH GRADE • 1 HOUR

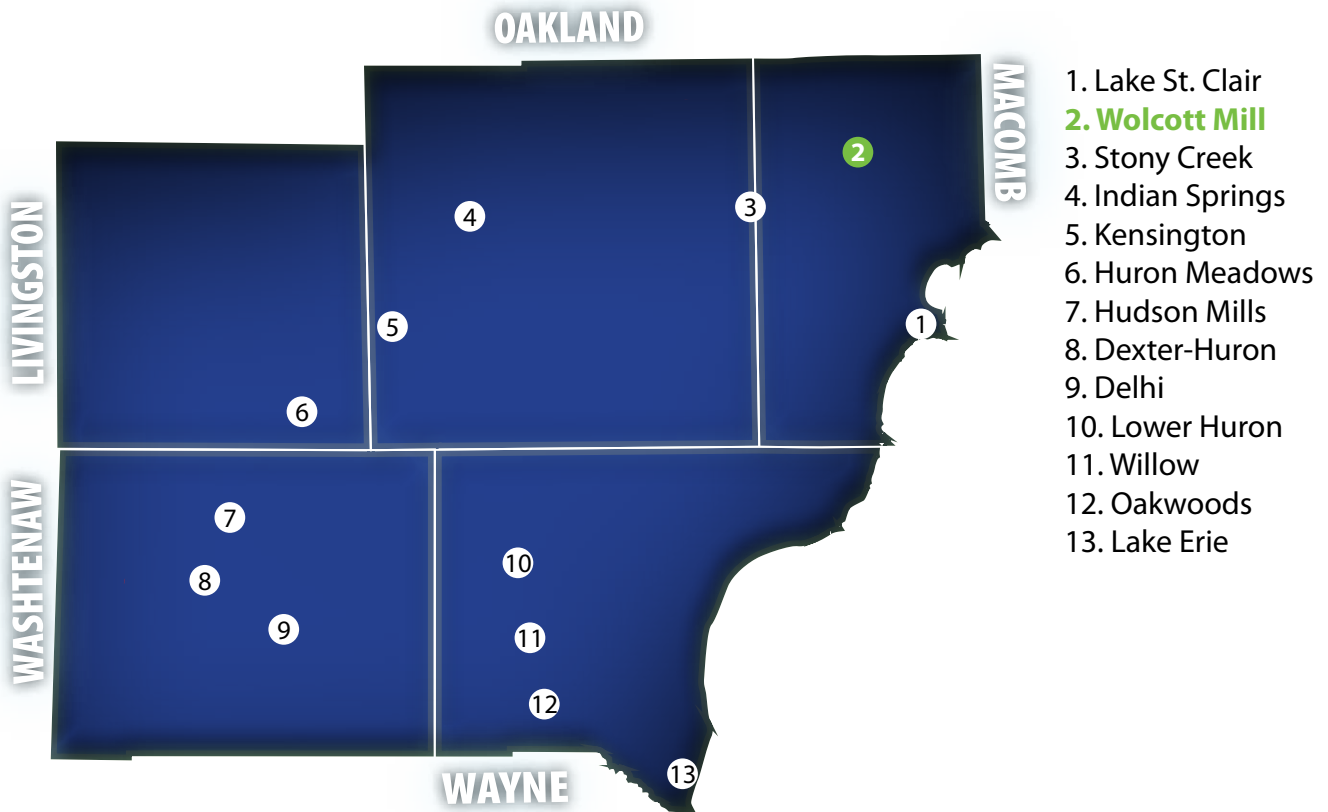
Organisms are related in some odd and surprising ways that go beyond a simple food chain. This program not only provides interesting examples of ecological relationships, but stresses that humans are not separate from this great ecological web. We'll demonstrate how a food chain is actually a circle and provide some interesting hands-on items.

*Focus: adaptations • human impact • biotic & abiotic factors • food chain • ecosystems & ecological relationships*



# WOLCOTT MILL METROPARK FARM CENTER

586-752-5932 • 65775 Wolcott Road, Ray, MI 48096



It is important for students to develop an awareness of the science behind the foods and fibers they use and to make a connection with their state and country's agricultural pasts. School programs at the Wolcott Mill Metropark Farm Center allow students to do just that, gaining a first-hand perspective on the basic elements of agriculture as they experience the sights, sounds and smells of farm life.

In-county tours (Macomb, Oakland, Wayne, Livingston and Washtenaw) are \$45 minimum per group. Out-of-county tours add \$1 per student with \$60 minimum (larger groups can be split). Individual tours can be packaged at the Farm Center or with the Historic Center tours. Ask an interpreter for details. Wagon rides and locally made ice cream are available for an additional charge.





## PROGRAMS

### FARM TOUR FOR THE LITTLE ONES

Where does milk come from? What does milking a cow look like? What does the cow eat? What does a beak feel like? What is that smell? Little ones will find out the answers to these questions and more when they join us for a fun filled educational tour. The children will learn what animals sound like, how they feel and more with hands on contact.

#### PRESCHOOL & KINDERGARTEN

##### YEAR-ROUND • OUTDOORS • 1 HOUR • \$3/PERSON

Students will be able to ask informative questions based on experiences and observations. Students will be able to identify the physical needs of domesticated farm animals, and recognize products from the farm as goods they use or consume at home.

#### 1ST GRADE & UP

##### YEAR-ROUND • OUTDOORS • 1 HOUR • \$3/PERSON

Many of our elementary age children have never set foot on a working farm or know where their food and fiber comes from. This program introduces students to the animals living on a working farm and their contributions to society. Students are encouraged to greet the different animals face to face, while they learn about the job each specific animal does on the farm. Students will learn about the basic needs all animals have and also the differences between mammals and birds.

### FOOD & FIELDS WAGON TOUR

##### MARCH - NOVEMBER • ALL AGES • OUTDOORS • 1 HOUR • \$3/PERSON

Students will climb into a draft horse or tractor drawn wagon for a trip out to the Wolcott Farm Center crop fields. They will learn about the different crops raised on the farm, methods of sowing and harvesting and where farm products are used once they leave the field. The use of draft horses, tractors and farm implements will be discussed. The wagon will make a stop allowing students to feel the soil and take a closer look at crop plants in various stages of growth and what makes healthy soil. A hands-on activity will challenge students to identify the plant source of items from their everyday lives.

*Focus: life requirements · earth materials · earth systems · ecosystems · properties of matter · organization of living things · natural resources · evolution*

### GREENHOUSE & GARDENS

##### MARCH - OCTOBER • ALL AGES • INDOOR/OUTDOORS • 1½ HOUR \$4.50/PERSON

This program will introduce students to indoor growing methods, including sprouting from seeds, and basic hydroponics. They will learn about planning for growing season, raised bed gardening and basic plant care. They will see how a greenhouse functions to extend the growing season in the Michigan climate and explore the benefits of fresh food in a healthy diet. A hands-on activity will allow the student to create a sprout and grow kit to take home.

*Focus: earth materials · ecosystems · organization of living things · solid earth · organization of living things · life science*





## MEET THE ANIMALS

**ALL AGES • YEAR-ROUND • OUTDOORS • 1 HOUR • \$3/PERSON**

Explore how animals live and function on a farm and their contributions to society and nature. Through observation and hands-on experiences, students will learn about the job that each specific animal does on the farm as well as where food and fiber come from. Students will learn about the basic needs all animals have and also the differences between species and breeds. There will be opportunities to see and touch farm animals, both mammals and fowl. A hand-on activity will allow students to see, feel and smell different animal feeds and identify their source.

*Focus: physical needs of animals · life cycles · heredity traits · farm equipment & technology · physical attributes · the business of livestock · farms in Michigan history · requirements for energy & growth in animals · food chain · ruminant vs. non-ruminant animals · how animal systems work · economics of food & fiber*

## FARM CENTER EDVENTURES

EDventures are educational programs that can be adapted to your location. Choose any program listed in this brochure for your classroom and/or outside in your special habitat. Listed below are some of the most popular EDventures, but others listed can be adapted for your location.

### OFF-SITE INCUBATOR PROGRAM

**SPRING • ALL AGES**

This program will educate students on the life cycle of a chicken from fertile egg to live baby chick. A portable incubator brought to the classroom will be used to allow the students to monitor the heat, humidity and rotation of the fertile eggs and to observe the hatching of chicks. There will be a discussion on how and when adult chickens lay eggs and the properties of the eggs from various breeds of hens. A visit to the classroom as the chicks are hatched will engage students on how the downy chicks grow out their feathers and allow the students to touch the chicks at different stages. Basic care and feeding will be discussed.

*Focus: heredity · life cycles · functions of structures · observable parts & physical characteristics · survival & reproduction*

### FARM DAY AT YOUR SCHOOL

**FALL/SPRING • ALL AGES • \$100 OFF-SITE FEE & \$3/STUDENT**

During this in-school, live animal program, students will meet some of the animals that live at the Wolcott Mill Farm Center and learn about their unique features. They will find out why domesticated animals are a blend of inherited traits from their ancestors and what humans have wanted from them. Students will explore farm animals with a look at their anatomy: what it does for the animal, how it works, how it may change through life, how it is inherited from their parents and how we can group animals based on what their anatomy.

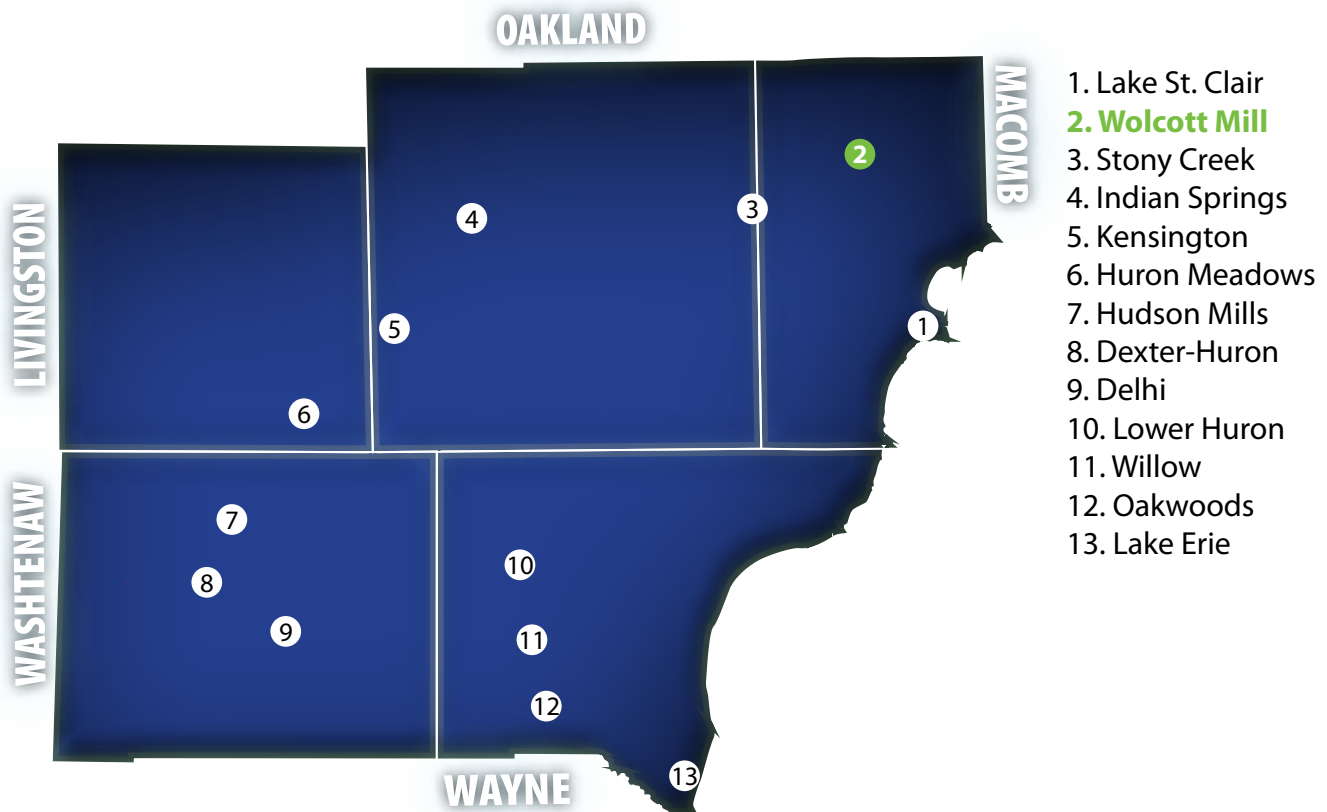
*Focus: heredity · life cycles · functions of structures · observable parts & physical characteristics · survival & reproduction*



# WOLCOTT MILL METROPARK

## HISTORIC CENTER

586-749-5991 • 64162 Kunstman Road, Ray, MI 48096



The Historic Center, listed on the National Register of Historic Places through the National Park Service, Department of Interior, is one of the few fully intact grist mills remaining in Michigan. Just 20 minutes north of the M-59 corridor, the majestic mill sits on the banks of the North Branch of the Clinton River. Built in 1847, the Historic Center operated as a grist and feed mill until 1967. All buildings are original except the gazebo, restrooms and the toll road building. We hope to protect this facility for the use and enjoyment of all future generations. We ask that teachers, group leaders and parents help us in this endeavor by instilling appreciation and respect for the site in their students.





## ALL GRADE LEVELS

### MAPLE SWEETNESS

**MARCH • INDOORS & OUTDOORS • 1½ HOURS • \$5/STUDENT, \$3/ADULT**

Learn how to recognize a maple tree without leaves, discover the history and art of sap collection. Learn the process of making maple syrup, taste the difference between store bought and real maple syrup.

*Focus: plant parts & functions · states of matter · American Indian stories · American Indian/settler interactions & relationship to environment · weather · seasons · movement of goods in a community*

### MICHIGAN SETTLERS

**YEAR-ROUND • INDOOR & OUTDOOR • 2 HOURS • \$6/STUDENT, \$3/ADULT**

Discover what life was like as a settler in Michigan. Learn how to make your own butter from scratch and sample homemade cornbread. Explore old-fashioned toys, the craft of rope-making and how we did chores before modern technology. Hand-dip your own wax candle and enjoy a program that takes you back in time.

*Focus: time & chronology · comprehending the past · diversity of people, places & cultures · human/environment interaction · location, movement & connections*



### GRIST MILL: MICHIGAN'S FIRST FACTORY

**YEAR-ROUND • INDOOR & OUTDOOR • 1 HOUR • \$3/PERSON**

From mortar and pestle to roller mills and water power, the history of the first factory will be the main focus of this tour. Tour the mill which was built in 1845, then participate in hands-on activities in the warehouse. See a milling demonstration and travel back in time through sight, smell and touch.

*Focus: historical thinking · families now & long ago, & how they lived or worked · understand how regions were created & why · how the increase in the population changed the rural community · how water & simple machines were used before electricity*

### LUMBERING IN MICHIGAN

**YEAR-ROUND • INDOOR & OUTDOOR • 1 HOUR • \$3/PERSON**

Lumber jargon, log markings and rivers in Michigan are all part of our lumbering program. In the hands-on area, you can use a cant hook, a two-man saw and pulleys. See what an actual lumber shanty looked like.

*Focus: history of Michigan (through statehood) · Use historical thinking to understand the past · how do people adapt to, use and modify their environment*

### HARNESSING WATER POWER

**YEAR-ROUND • INDOORS & OUTDOORS • 1 HOUR • \$3/PERSON**

Learn about this powerful renewable resource and what it can do. Discuss water wheels, turbines and the dam used to provide power to the existing Wolcott Mill. Learn about the Clinton River and the benefits of using water as an energy source. There will be activities, a chance to see the dam up close and students can make a water turbine.

*Focus: water power as a renewable resource · types of water wheels & turbines · dams and how they work · how water creates energy · hydrology & river systems*



## WOLCOTT MILL METROPARK HISTORIC CENTER





## PROGRAM ENHANCEMENTS

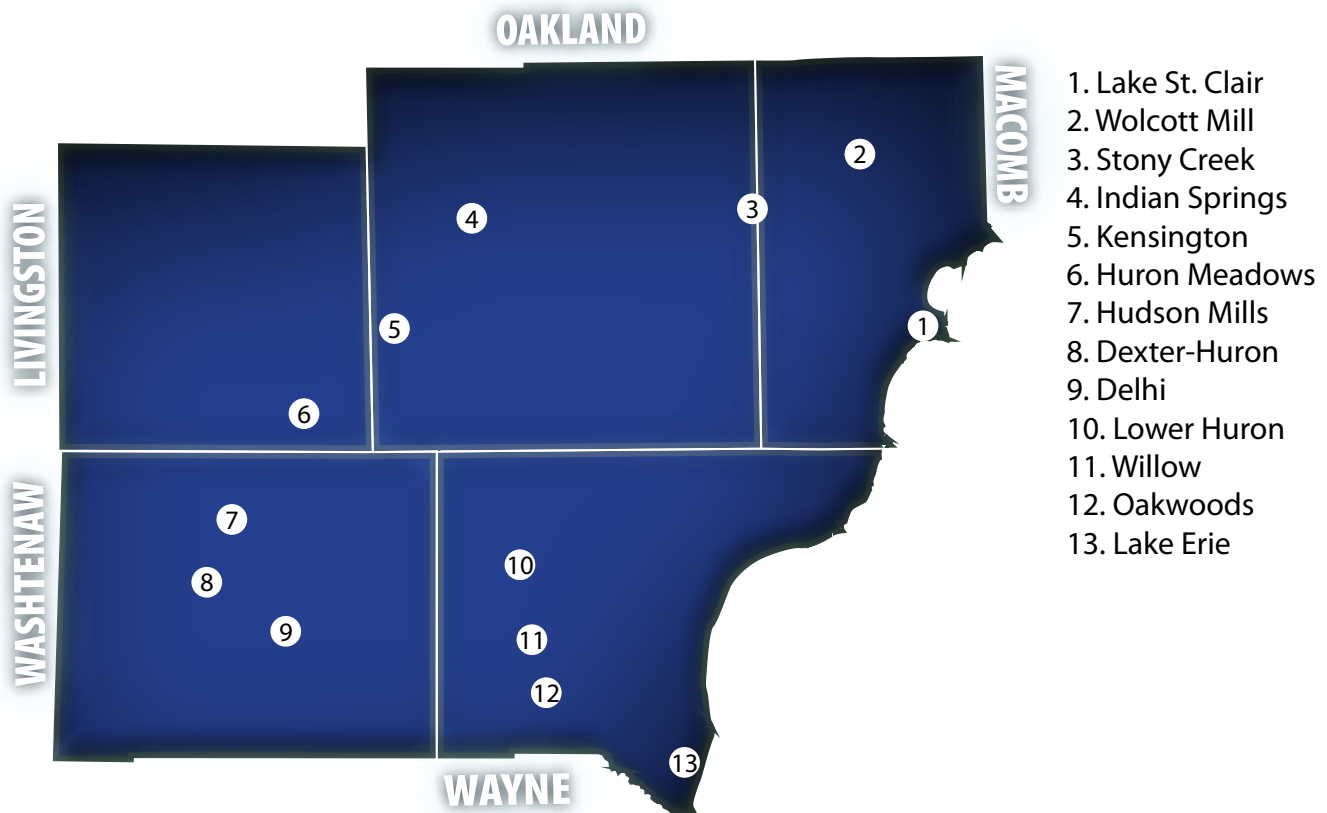
**CANDLE-DIPPING**  
\$3/PERSON DIPPING

**LOG CABIN MAKING**  
\$5/CABIN

## SOUVENIRS

We carry a small amount of settler toys and old-fashioned candies that may be purchased. Prices vary according to item.

## MOBILE LEARNING AND EXPLORATION VEHICLES



The Community Outreach program is a vital part of the Metroparks' Interpretive department.

Serving Wayne, Oakland, Macomb, Washtenaw and Livingston Counties, the Outreach program, comprised of the Western District Mobile Learning Center, the Eastern District Mobile Learning Center, and the Southern District Outdoor Exploration Vehicle. Programming is offered to communities, schools, senior centers, and other related groups that may not have the opportunity or means to visit the Metroparks. Our vision is to bring aspects of Michigan's natural and cultural heritage to these groups while raising public awareness of the opportunities to "Get Out and Play" at the Metroparks.

Available throughout the year, all programs are based upon an interactive theme with activities to do and items to see and touch. All programs are provided either inside the organization's facility\* or in an adjacent outdoor space. Activities may vary for each program dependent upon class interest and times. Most programs can be modified for all age groups (unless otherwise noted).

*\*Subject to certain room requirements.*





## PRESCHOOL PROGRAMS

**(AVAILABLE TO ALL FIVE COUNTIES)**

**810-227-2757 X6422**

Loads of learning fun for little ones! Age-appropriate and geared toward the developmental level of early learners, all of these programs include stories, puppet shows, songs and unique activities. Children are encouraged to use their senses during the up close investigation of furs, feathers, skulls and other animal artifacts. Our preschool programs are adaptable for children ages two through first grade.

### **MAMMALS ARE MARVELOUS YEAR-ROUND**

Children will delight in learning what features make mammals unique by making comparisons between themselves and other animals "born alive and well." Mammals in Michigan representing herbivore, carnivore, and omnivore diets are the main focus.

*Focus: mammal diversity & adaptations*

### **OUTSTANDING OWLS YEAR-ROUND**

"Wide-eyed owls" and all their neat features from beak to talon are explored with movements, artifacts and taxidermy. Also included are the sounds of Michigan owls and a chance to mimic them.

*Focus: owl adaptations & Michigan species*

### **SHELLS, SCALES & POLLYWOG TAILS YEAR-ROUND**

Frogs, toads, and salamanders, their life cycles and special features are introduced with games and artifacts. Then turtles and snakes make their debut with further activity. To wrap it all up, kids get to meet the live animals they've learned about.

*Focus: Michigan amphibians & reptiles & their adaptations*

### **LIFE CYCLES – WHEN I WAS A BABY YEAR-ROUND**

Kids have fun relating to how animals grow up such as hatching eggs, metamorphosis, and mothering first-hand with unique activities. The strategies of familiar animals such as birds, butterflies and opossums are the focus during counting, movement, guessing games, and dress up.

*Focus: diversity of life strategies*

### **LIFE WHEN IT'S SNOWY BEST IN FALL & WINTER**

Wintertime can be hard for some, they say. But, the animals in this program have some special ways of surviving. Kids will investigate these methods and compare and contrast with hands-on artifacts.

*Focus: Michigan animal behavior in winter*





## **WE'RE FOND OF PONDS BEST IN SPRING & SUMMER**

There's a lot going on down at the pond. From food webs and frog calls to amphibian and insect metamorphosis, kids get a taste of all kinds of pond life with activities, artifacts, and live animals.

*Focus: pond life of all kinds, particularly amphibians & insects*

## **CRAWLING CUTIES: BUGS, INSECTS, SPIDERS AND MORE! YEAR-ROUND**

Bugs are our friends! Get to know some clever, captivating, and crawling creatures. We'll get close and personal so that we can observe the many important jobs that bugs do. We'll read a buggy storybook and then we'll create a 'crawling cuties' inspired work of art using our fingers.

*Focus: functions of structures · observable parts & physical characteristics · survival · classification · life requirements · adaptations*

## **CULTURAL HISTORY PROGRAMS**

**(AVAILABLE TO ALL FIVE COUNTIES)**

**LIVINGSTON, WASHTENAW, & WEST OAKLAND COUNTIES: 810-227-2757 X6422**

**EAST OAKLAND & MACOMB COUNTIES: 810-227-2757 X6248**

**WAYNE COUNTY: 810-227-2757 X6639**



### **THE FRENCH & THE FUR TRADE 3RD GRADE & UP**

This program focuses on the fur trade during the French period of Great Lakes history. Characters portraying family members of actual Frenchmen in Michigan's history share life as it was in this dynamic time period. The people, the furs, the culture, and the commerce of 1750 Fort Michilimackinac are all shared during activity, role play and even song. Great as foundation for our "People of the Three Fires" or "Michigan Mammals: Wetland Mammals" programs

*Focus: time & chronology · comprehending the past · judging decisions from the past · diversity of people · places & cultures · human / environment interactions*

### **PEOPLE OF THE THREE FIRES 3RD GRADE & UP**

The lives of pre-statehood Ojibwa, Odawa and Potawatomi peoples will be explored in this program. American Indian tools, technology, and language contributions will be explored through artifacts, replicas, and graphics. Hands-on demonstrations of fire-making and pump drilling are included where time allows.

*Focus: time & chronology · comprehending the past · judging decisions from the past · diversity of people · places & cultures - human / environment interactions*



### **TIMBER! 3RD GRADE & UP**

Michigan's logging industry, of the mid to late 1800's, brought many jobs and subsequently many people to our state. In this program, the daily life of the lumberjack will come alive as our costumed Interpreters help students use the tools and demonstrate the logging methods used by these hardy individuals of the Green Gold era. We will also take a look at the foods, language, and pastimes of the logging camps, and the stories that grew up around them.

*Focus: time & chronology · comprehending the past · judging decisions from the past · diversity of people · places & cultures - human / environment interactions · location, movement & connections*



## SCIENCE & NATURAL HISTORY PROGRAMS

(AVAILABLE TO ALL FIVE COUNTIES)

LIVINGSTON, WASHTENAW, & WEST OAKLAND COUNTIES: 810-227-2757 X6422

EAST OAKLAND & MACOMB COUNTIES: 810-227-2757 X6248

WAYNE COUNTY: 810-227-2757 X6639

### BIRDS OF PREY

#### 2ND GRADE & UP

Hawks and owls of the Great Lakes region will be the focus of this program. Photos, video, sound recordings and taxidermy mounts will be used to identify these birds and to demonstrate their hunting and feeding behavior and other adaptations. We will discuss where birds of prey can be found and their predator/prey relationships. Students will also participate in several demonstrations.

*Focus: adaptations & survival • classifications • characteristics • life requirements • predator-prey • human /environment interactions*

### MICHIGAN MAMMALS

#### 2ND GRADE & UP

Michigan is home to a variety of mammals. The focus of this program will be on mammal diversity and adaptations, especially those affecting diet. Students will learn to identify Michigan mammals using skins, mounts, and skulls as well as through a variety of hands-on activities.

Explore mammals through a featured animal program. Students will explore how the feature animal fits into the mammal family, how its unique adaptations affect anatomy and behavior, and the diversity of the species in our state. Hands-on artifacts, specimens, video or sound recordings and activities all may be used to engage the class.

#### CHOOSE ONE:

- bats
- carnivores
- deer
- wetland mammals
- all mammals

*Focus: adaptations & survival • classifications • characteristics • life requirements • predator-prey • human /environment interactions.*



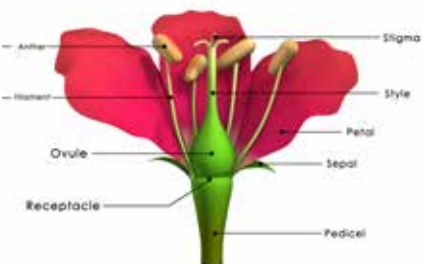
### PLANT PARTS AND SEED DISPERSAL

#### 2ND GRADE & UP

From our food to our homes to the air we breathe, where would we be without plants? Discover the role each part of a plant plays as we transform a student volunteer into a beautiful flower. Then find out how plants overcome the challenge of being stuck in one place with different techniques to cast their seeds across the world during the second half of this interactive presentation. Learn about the importance of plants all while having fun!

(Additional 30 minutes) Venture out into the schoolyard on a plant hike and scavenger hunt.

*Focus: plant structures and function • plant life cycles • environmental adaptations*







## **COLD-BLOODED CREATURES**

### **2ND GRADE & UP**

This up-close look at Michigan's most interesting herps is sure to satisfy the most curious budding herpetologist (one who studies reptiles and amphibians). Students will learn to categorize herps as reptile or amphibian by observing physical features and life cycles.

Discussions will include information on habitats, populations, diet and adaptations for survival. Hands-on activities and student participation make the learning easy. Select a focus on reptiles or amphibians. Students will enjoy an entire session devoted to that animal family, including meeting some of its members.

#### **CHOOSE ONE:**

- reptiles
- amphibians
- both

*Focus: adaptations & survival • classifications • characteristics • life requirements • predator-prey • human /environment interactions • ecosystems • food chains • structures & functions • habitats*



## **THE S.T.E.A.M. EXPERIENCE – SPECIALTY PROGRAMS**

### **810-227-2757 X6248**

Along with the core natural and cultural history programs for elementary school students, the S.T.E.A.M. experience offers programming designed for both students and adults. Developed by staff with degrees in history and graphic arts, these programs are presented to a wide spectrum of audiences—whether the participants are 7 or 107 years old they will be engaged in meaningful activities. Offerings include local history, art in nature, and farm life.

### **MOBILE INCUBATOR PROGRAM (TWO PARTS)**

#### **“EGGSPLORATION” EGG INCUBATION PART I: 1 HOUR**

##### **SPRING • ALL AGES**

Let's “Eggsploration” the mysteries of the egg: Why does an egg have a hard shell? Will my grocery store eggs hatch? What happens inside of the egg before the chick hatches? Over the course of 21 days, you will witness the transformation of fertilized eggs into fully-formed chicks. We'll provide everything you need for a successful hatch so that you can experience the wonder of life on display at your facility. Fertile eggs and an incubator will be brought to your location with simple-to-follow instructions.

#### **“EGGSPLORATION” EGG INCUBATION PART II: 1 HOUR**

The chicks have hatched! Are they male or female? Do they have teeth? How will they survive? Find out what's next in the life a chick during the essential ‘Part II’ follow-up visit. Staff will collect the incubator and all of the materials from “Eggsploration” Part I.

*Focus: heredity • life cycles • functions of structures • observable parts & physical characteristics • survival & reproduction*

### **NATURE JOURNAL CRAFTING**

#### **YEAR-ROUND • ALL AGES**

A nature journal is a great place to collect thoughts, feelings and ideas about the world around us. During this program you'll fashion your own journal that will have space to draw, to take notes, and to store your collection of natural specimens. Use your journal as a new tool to explore outdoors.

*Focus: human impacts on nature • natural resources • human/environment interaction*





## **NATIVE AMERICAN ARTS & CRAFTS**

### **YEAR-ROUND • 6TH GRADE & UP**

Explore Great Lakes Native American traditions and cultural history while your group creates a native inspired craft project that utilizes natural materials. Project choices include making native cordage, Makuk baskets, or dream catchers.

*Focus: Michigan history • time & chronology • comprehending the past • diversity of people, places & cultures • human/environment interaction*

## **OUTDOOR EXPLORATION SPECIALTY PROGRAMS**

### **810-227-2757 X6639**

Use science and the tools of a scientist to explore your schoolyard with help from the Outdoor Exploration Vehicle. Through games and activities, your class will discover what an ecosystem is. Then, with handheld data loggers, probes, sensors, field microscopes, portable weather stations and a host of other observation and data-collection equipment, your students will measure the ecological parameters of your schoolyard, and then use this information to form hypotheses and answer questions about the environment around them.

We offer the Ecosystem Exploration program with different focuses, depending on your interests and the time available. (Most Ecosystem Exploration programs require 60 – 120 minutes, depending on components requested.)

### **ECOSYSTEM EXPLORATION**

#### **FOCUS: ECOSYSTEM COMPARISON**

#### **YEAR-ROUND • 4TH GRADE & UP**

How is your grassy lawn different from a native plant garden? Or from a stand of oak trees? Or even from a row of hedges by the side of the building? Using the tools of the Outdoor Exploration Vehicle, observe and measure the differences between the varied habitats around your school, no matter how large or how subtle the differences. Then figure out what this means for the animals and plants that call your schoolyard home.

*Focus: ecosystem interactions • classification • environmental adaptations • survival • human impact*

### **ECOSYSTEM EXPLORATION**

#### **FOCUS: SOIL & THE FOREST FLOOR**

#### **YEAR-ROUND • 4TH GRADE & UP**

Do you dig dirt? Check out what's going on beneath the grass as we take soil core samples to examine the soil horizons. We'll check for soil color, soil moisture, and the amount of organic matter present. We'll also use the rest of our Ecosystem Exploration tools and focus our measurements on the "lower" levels of the ecosystem.

*Focus: ecosystem interactions • classification • environmental adaptations • survival • human impact*

### **ECOSYSTEM EXPLORATION**

#### **FOCUS: WATER QUALITY AND ENVIRONMENTAL CHEMISTRY**

#### **YEAR-ROUND • 6TH GRADE & UP**

If you have a pond, ditch or stream nearby, have your students discover whether or not different aquatic life could survive based on the chemistry and hydrology of the water. We'll test for dissolved oxygen, pH, phosphates, nitrates and a host of other parameters before figuring out what ranges are required for local aquatic invertebrates and common fishes. What could survive in *your* water?

*Focus: ecosystem interactions • classification • environmental adaptations • survival • human impact*



## **MOBILE LEARNING AND EXPLORATION VEHICLES**





## **ECOSYSTEM EXPLORATION**

### **FOCUS: TEST A HYPOTHESIS**

#### **YEAR-ROUND • 6TH GRADE & UP**

Does your class have a particular question or hypothesis they'd like to explore about their schoolyard? Then why not build your own program? Use the tools of the Outdoor Exploration Vehicle and the expertise of our staff to assist your classroom full of scientists as they run their own Ecosystem Exploration experiment!

*Focus: ecosystem interactions • classification • environmental adaptations • survival • human impact*

## **INSECTS ARE EVERYWHERE!**

### **SPRING/SUMMER/FALL • 2ND GRADE & UP**

Once you discover how fascinating insects are, you'll never let 'em bug you again! We'll transform a student volunteer into a six-legged arthropod as we learn what makes an insect an insect. Then we'll explore insect life cycles, learn about the major groups of insects, and finally head outside (when seasonally appropriate) to capture and observe some of these sometimes bizarre, but always cool, invertebrates.

*Focus: life cycles • structures and functions • classification • species adaptation and survival • habitats • life requirements*



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