



Helmer Nature Center EDUCATOR'S GUIDE

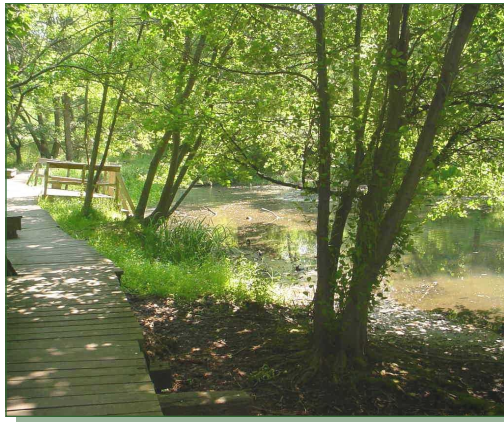
Helmer Nature Center utilizes the natural world as a classroom to provide practical, integrated learning opportunities for students of all ages. This catalog is a guide to programs offered at HNC, which include live animal presentations and hands-on exploration of pond, meadow, and forest ecosystems, as well as programs that come to your classroom. Educators are available to develop or modify programs to support units of study for your class in addition to what is currently listed.

Programs are designed to support New York State learning standards in Science, Math, Social Studies, and English Language Arts.

Helmer Nature Center Guide for Educators

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About Helmer Nature Center

Helmer Nature Center has been owned and operated by the West Irondequoit Central School District since 1973. The facility is named for Earle Helmer, WICSD's superintendent at the time, whose vision was key to HNC's beginning. Since then, the facility has become a vital component of the curriculum for WICSD as an outdoor classroom, as well as an environmental resource for the surrounding community. HNC field experiences are designed to support New York State learning standards and WICSD outcomes. While WICSD students are the primary participants of HNC programs, classes from the surrounding rural, urban and suburban communities are invited to participate as well.

Helmer Nature Center encompasses 45 acres of forest, field, meadow, wetland, pond and stream habitats. Throughout the landscape, there is evidence of the agricultural history of the property: terraced hillsides where grape vines once flourished, a discarded windmill and an occasional bit of fence or chestnut fence post.

HNC's educational programs offer hands-on, integrated learning opportunities for the study of animal and plant adaptations, ecosystems, ecological concepts, geological processes, and service learning opportunities to learners from pre-school to adult age levels.

As an integral part of WICSD, Helmer Nature Center subscribes to the philosophies and guiding principles of the district, its goals and objectives.

In addition, the HNC Action Council was formed to assume the responsibility of creating a document which set forth a vision, guiding principles, and a brief action plan for the continued growth of HNC. A portion of this document follows, which outlines some of the guiding principles related to education in the outdoors:

Outdoor Environmental Education:

- ◆ promotes the understanding of the interconnections between humans and the natural world that sustains them.
- ◆ Promotes curiosity and a sense of wonder.
- ◆ Fosters a sense of commitment to a conservation ethic and a sense of respect for the natural world and its inhabitants.
- ◆ Provides enriching experiential opportunities for every learner.
- ◆ Actualizes core skills and content in many academic areas.
- ◆ Promotes the understanding that the environment is key in preserving our cultural heritage, both locally and globally.
- ◆ Creates an awareness of biodiversity, which is essential to the future of the planet.
- ◆ Creates an atmosphere of active participation and awareness which builds self-esteem.
- ◆ Inspires discipline and lays a groundwork for a way of life.
- ◆ Gives a sense of the true meaning of community.
- ◆ Above all, teaches us that all life has value.

Programs at Helmer Nature Center

Programs are designed to support New York State learning standards in Science, Math, Social Studies, and English Language Arts.

Programs are organized by the season(s) in which they're offered and they have a suggested age range. HNC may be able to modify a class for a different age or season, and most whole day programs can be switched to a half day. Refer to page 15 for information on how to schedule a program or email the Education Coordinator at casey_franklin@westiron.monroe.edu for more information.

Signs of Fall

September-November, 1.5 hours

Pre-K - 1st, \$4.00 per student

Students explore the wonders of fall during a walk through the woods and an animal presentation as they learn about instinctive responses to seasonal changes.

Fall Offerings



Erosion Day

September-November, 4 hours

1st—3rd, \$8.50 per student

Students will learn about erosion through games and experiments that help them explore key characteristics of water and soil. They will then take what they learned and use it on an hike to see erosion and erosion prevention in action.

The Haudenosaunee — People of the Longhouse

September-November, 4.25 hours

3rd-5th \$9.00 per student

Everything we have and use comes from the Earth. Students learn more about Iroquois lifestyle as they locate useful plants in the forest, examine replicas of Native American artifacts, create corn husk dolls, fry bread, popcorn, and use a Native American pump drill to make slate jewelry.



Winter Offerings



The Magic of Maple Trees

March only, 1.5 hours

All ages, \$4.50 per student

Students help HNC staff make maple syrup! Students learn about the history of maple sugaring from Indigenous peoples to the modern times through the use of artifacts and stories. Educators guide students as they tap a tree, collect and haul sap, and observe the evaporator in action. Everyone gets a taste of maple syrup!



Snowshoeing

December—February, 1.5 hours (Weather Dependent)

All ages (Snow shoes are fit for pre-school– adult), \$4.50 per student

Students learn about the history of snowshoeing and then try on some snowshoes for a walk through the woods. Students can also look for animal tracks in the snow.

Arctic Day

December—February, 4 hours

2nd—4th , \$8.50 per student

Students discover the special adaptations of arctic animals and people through games and hands-on activities. Students experience how the extreme weather of the Arctic affects different arctic animals through a game.

Students meet animals, and also learn about human adaptations as they try out snowshoes (weather permitting) and make their own pair of Inuit snow goggles. (This program can run with out without snow. If there is no snow, a winter hike will be substituted for snowshoeing.



Spring Offerings

Signs of Spring

April-June, 1.5 hours

Pre-K—1st, \$4.00 per student

Students observe the signs of springtime on a nature hike, and learn about animal responses to spring with an animal presentation.



Exploration Day

May-June, 4 hours

Pre-K—1st, \$8.50 per student

Students learn all about animals in the Spring with a nature hike and an animal presentation. Students explore the nature center pond, play nature games and make an animal craft to take home. (This is a full-day version of "Signs of Spring.")



Investigating Insects

April-June, 4 hours

K—2nd, \$8.50 per student

Insects are everywhere! Students discover the world of insects as they use sweep nets in the meadow, hike in the woods and investigate the pond. Activities also include an outdoor insect game, an up-close meeting with a hissing cockroach (and other animals, too!), and an insect craft to take home!

Plant Day

April-June, 4 hours

1st—3rd, \$8.50 per student

While observing plants in a variety of habitats on a hike and playing games to reinforce ecological concepts, students will be able to draw conclusions about why and how plants grow in specific habitats. They will also discover why plants are important to people and animals and visa versa.



Available Multiple Seasons

Nature Hike and Animal Presentation

All seasons, 1.5 hours

All Ages, \$4.00

On a nature hike, students explore wildlife habitats, survival, and seasonal changes. Students meet HNC's animals and learn about their adaptations. This program can be adapted to a particular theme, depending on what students are learning in the classroom.



Sensing Your Surroundings

All Seasons, 1.5 hours

K—2nd, \$4.00 per student

How do animal senses differ from ours? Students explore the outdoors using all of their senses, and meet live animals to learn about how they sense their environment. Students also play a game, using several of their senses to describe and identify mystery objects.



Nature Detectives

All Seasons, 4 hours

1st - 3rd, \$8.50 per student

Who was here? Students spend time outdoors discovering signs of animal activity and hypothesizing about events that have taken place. Students also practice their pattern recognition and detection of camouflaged objects during two different indoor games. Working as a team, they match written descriptions to real leaves collected at the nature center to create a tree identification book.

Properties in Nature

All Seasons, 1.5 hours

K- 2 , \$4.00 per student

Students practice their comparison and classification skills during three different hands-on activities. Students learn about taxonomy and classification during an animal presentation, and use their comparison skills to discover and record similarities and differences of natural objects. On a nature hike they learn to use binoculars as a tool to identify birds by noticing distinguishing details.

Multiple Seasons (Cont.)

Anthropology Day

September—November, April—June, 4 hours

2nd—4th, \$8.50 per student

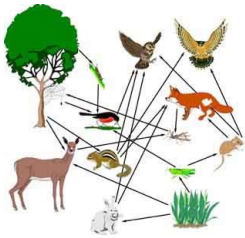
Does nature influence culture? Which cultures have used this land before us, and what were they like? Students find answers to these questions as they search for artifacts in an authentic dig site, study the local flora and fauna, and make an entry in their own nature journal.

Our Changing Earth

September—November, April—June, 4 hours

3rd—5th, \$8.50 per student

How does the land change over time? Students learn about the natural processes of erosion, succession, glaciation, and the impacts of human land use during a nature hike. They also learn about different types of rocks and the processes by which they are created and destroyed as they complete a rock cycle game. Students will have the opportunity to meet some live “animal architects” and create a fossil to take home.



Nature's Connections

All seasons, 4 hours

3rd—5th, \$8.50 per student

Everything is interdependent! With a focus on food relationships, students will explore the nature center forest and meet some animals to learn how they acquire food and avoid becoming food! They will create a “web of life” and play a game to illustrate the connection between animals and their environment.

Pond Ecology Day

September-November, April-June, 4 hours

4th—6th, \$8.50 per student

What is a macroinvertebrate, and why are they so important? Students will learn about these and other animals as they explore the pond with dip nets, perform water tests and identify aquatic animals in order to assess water quality. Students will also play a game to record the effects of environmental stressors on aquatic animals.

Multiple Seasons (Cont.)



Teambuilding

All Seasons, 2 hours

Middle, Junior, & High school, \$4.50 per student

Group communication, cooperation, problem-solving, and some silliness are all part of this program designed to help students develop interpersonal and leadership skills. Students have an

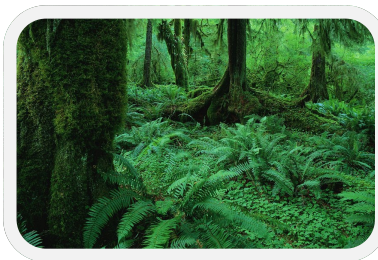
opportunity to work together as they do some off-the-wall activities in the outdoors.

Project WILD

All Seasons, 2 hours

Middle, Junior, & High school, \$4.50 per student

Students get “wild” and learn about the ecological concepts of biodiversity, predator/prey relationships, carrying capacity, survival strategies, symbiotic relationships, bioaccumulation, and more as they predict outcomes and analyze the results of their survival efforts.



Field study– local and invasive species

Spring or Fall, varied time frames and cost

Middle, Junior, & High school

Have your students see for themselves how invasive species are interfering with our local ecosystems. Students will conduct a field survey for NYSPRISM species of concern which can be connected to citizen science work back in your classroom. Students will also learn to identify some native tree species or go on a hike to learn more about invasive species.

HNC Staff may be able to customize a program to meet your needs. Email the education coordinator to discuss options.

Nature Programs in Your Classroom

HNC offers outreach programs to bring curriculum-based science lessons into your classroom. Our programs are designed to support school curriculum with presentations and interactive learning activities. Programs are 35 to 40 minutes long and are designed for a class of about 25 students. Most presentations are done in your classroom, but some utilize nearby outdoor spaces for some of the activities.

Teachers may contact the nature center at any time to schedule a visit that complements the class unit of study. HNC staff is available to assist in developing additional programs to meet learning objectives. Refer to page 15 for information on how to schedule a program.

The cost is \$80.00 for the first presentation and \$40.00 for each additional presentation. Additional mileage charges apply for travel over 20 miles from HNC. A \$20.00 non-refundable deposit is required to reserve your date.



All Age Levels

Animal Adaptations

Live animal ambassadors come to your classroom to teach students how their physical traits and behavioral instincts help them survive in the wild. Animals that may be available include: turtles, snakes, rabbit, rat, owl, hermit crab, hissing cockroach and/or frogs.

Kindergarten

The Adventurous Seed

A seed is a tiny new plant, and it has everything it needs to set out and start a new life! Students discover and define the parts of a seed by dissecting a lima bean and other seeds. Seeds have many different modes of travel, and students see this diversity as they examine several fruits and flowers, and find out where their adventures may take them!

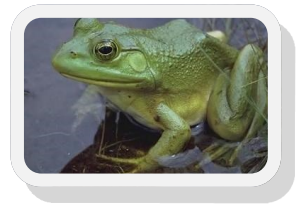
Kindergarten (continued)

Snow is Our Home

Students learn about winter survival, the search for food, and the insulating properties of snow from a puppet show about a rabbit and a mouse. Students are then transformed into mice who must find food underneath a protective blanket of “snow”. Program includes a visit with a live rabbit or rat.

Pond in a Backpack

Ponds are full of life! HNC brings a pond to your classroom, and the students help put it all together! Students learn about all of the amazing animals that live in and around the pond using stuffed animal representatives, as well as a live animal, and see how all the animals share this very special habitat. Visit includes a live turtle (or two!)



First Grade

Forest Fast Food

What exactly goes on in the forest during wintertime? Animals are busy finding food to survive. Students learn from puppet wildlife friends about the signs that animals leave behind and use clues to investigate and identify which animals have been eating.

The Wondrous Worm

Students practice their scientific skills as they carry out a worm investigation! They learn all about worms by observing, measuring, comparing and contrasting a worm “model” (gummy worm) with a real live and wiggly worm.

Second Grade

Life in a Bucket of Soil

Soil is ALIVE!! Following a “recipe” for soil, students are introduced to the soil formation process, and the animals and other life forms found in a bucket of soil. Program includes a live decomposer (Madagascar hissing cockroach).



Third Grade

Camo Capers

Students discover the role of camouflage in the process of natural selection as they play a game that tests the survival of different colored “worms.” They then collect data and analyze their results through graphing. An outdoor area is needed.



Fourth Grade

The Great Migration Challenge

Students are transformed into migrating birds and must navigate through different challenges to complete their journey. As they experience pitfalls and progress during migration, students learn which natural events and human actions are most detrimental to bird survival, and what conservation measures they can take to help birds. A large, open space is needed for this activity.

Fifth Grade

Incredible Journey

Have you ever wondered what it’s like to be a drop of water? Students live the life of a water molecule on its journey through the water cycle. A multi-colored string of beads documents their travels and becomes a take-home reminder of the omnipresence of water.

Middle, Junior High and Senior High School

Teambuilding

Group communication, cooperation, problem-solving, and some silliness are all part of this program designed to help students develop interpersonal and leadership skills. Students have an opportunity to work together as they do some off-the-wall activities in the outdoors.

Project Wild, Flying Wild, Wet

Students learn about the ecological concepts of biodiversity, predator/prey relationships, carrying capacity, survival strategies, symbiotic relationships, bioaccumulation, and others as they become wild animals during interactive games, predict outcomes and analyze results. Open space is needed. Time frames are flexible.



Reserving Your Helmer Program

How do I reserve a program?

To reserve a program, either call (585) 336-3035 or email Jane Hinsenkamp at jane_hinsenkamp@westiron.monroe.edu with your choice of program, possible date(s), the number of students, and arrival/departure times. Once details have been decided, you will receive a reservation form via email. After you review the form, you will need to send in a reservation fee (see below) to secure your date(s).

How much does a field trip cost?

Field trip costs vary by program (listed in description), and are based on the number of students participating (minimum 10 students). Program fees are due the date of the program. There is also a separate reservation fee (\$5.00 per class for half-day, \$10.00 per class for full-day), which is due after reserving a date. There is no charge for school staff or chaperones (one for every 5 students.) If your group requests a greater number of chaperones, additional fees may be charged. See page 11 for Outreach Program costs.

How many students may we bring?

Because of limited indoor space, there is a maximum of 50 students for each program. If you have more than 50 students, you will need to reserve additional dates. If you have a small group, the minimum charge is for ten students.

How long are the programs?

Program lengths vary and are listed in the description. Half-day programs are from 1.5 to 2 hours. Full-day programs are 4 to 4.25 hours, and include a 30 minute lunch break. In special cases, we can adjust program lengths, and provide half-day versions of full-day programs (call the office for pricing).

When are programs offered?

We offer programs during school hours on Tuesday through Friday throughout the WICSD school year. If you would like a program on another day or after school hours, please call our office for options.

What happens when we get there?

Nature Center Staff will greet your group at the benches outside of the classroom building. In case of inclement weather, staff will greet students on the sidewalk outside of the building and then direct them indoors. Please park in the large lot west of the building (not in front). Our entrance is in the back of the brick building.

What can we expect to do?

Activities vary by program, but most programs involve a hike outdoors, along with a visit to our animal room and other games or crafts. Expect to be outdoors for at least half of the time. Some activities are done in class groups, while hikes are usually divided into smaller groups. Please note that each group must be accommodated by a chaperone.

What happens in bad weather?

We go outside rain or shine, hot or cold. If conditions are dangerous (lightning or high winds), activities will be adapted to indoor space.

What if we need to reschedule?

If weather-related school closures or other circumstances require you to reschedule, your reservation fee is transferable within 60 days of the scheduled program.

Where do the students eat lunch?

We provide an indoor space for students to eat lunch. If the weather is nice, we also have outdoor picnic tables if you prefer. See page 20 for information about lunches.

Where is HNC located?

We are located at 154 Pinegrove Avenue, Irondequoit. Pinegrove Avenue runs east off St. Paul Blvd., 2 ½ miles north of the Seneca Park Zoo. The turnoff is between the Cooper Road and Thomas Avenue.

Helmer Nature Center will make every effort to accommodate visitors and participants with a variety of physical, cognitive or learning abilities. Call or e-mail HNC prior to your visit to discuss the needs of your group with HNC staff.

Preparing For Your Trip to HNC

- ♣ Check the weather forecast and have students dress for the conditions. We go outside, rain or shine, hot or cold (except in dangerous conditions). Students will be outdoors for at least 30 to 40 minutes for any program. In severe weather, activities will be adapted to indoor space.
- ◆ Wear tall socks and long pants to limit exposure to ticks
- ◆ If rain is expected, raincoats are preferable to umbrellas, which are not appropriate for hiking on trails.
- ◆ No sandals or flip-flops. Sturdy, closed-toes shoes only.
- ◆ Name tags are helpful to our staff as your students participate.
- ◆ Respect for adults and other students is expected. Teachers will be responsible for student discipline.
- ◆ We request at least one chaperone for every 10-15 students. More chaperones are helpful for younger students.
- ◆ Chaperones are expected to assist with student behavior and classroom management.
- ◆ Adults should refrain from cell phone use during presentations and hikes, except for occasional photos and emergencies. Cell phone use and other personal conversation should not be a distraction for students.
- ◆ Trail guidelines – We emphasize respect for wildlife, including . . .
 - ◇ Stay on trails.
 - ◇ Walk quietly and don't disturb animals.
 - ◇ No collecting or picking of plants or animals.
 - ◇ "Leave only footprints, take only pictures."

Ticks and Tick-borne illnesses are on the rise

Follow these steps from the CDC to check for ticks after spending time outdoors.

Check your clothing for ticks. Ticks may be carried into the house on clothing. Any ticks that are found should be removed. Tumble dry clothes in a dryer on high heat for 10 minutes to kill ticks on dry clothing after you come indoors. If the clothes are damp, additional time may be needed. If the clothes require washing first, hot water is recommended. Cold and medium temperature water will not kill ticks.

Examine gear and pets. Ticks can ride into the home on clothing and pets, then attach to a person later, so carefully examine pets, coats, and daypacks.

Shower soon after being outdoors. Showering within two hours of coming indoors has been shown to reduce your risk of getting Lyme disease and may be effective in reducing the risk of other tickborne diseases. Showering may help wash off unattached ticks and it is a good opportunity to do a tick check.

Check your body for ticks after being outdoors. Conduct a full body check upon return from potentially tick-infested areas, including your own backyard. Use a hand-held or full-length mirror to view all parts of your body. Check these parts of your body and your child's body for ticks:

Under the arms

In and around the ears

Inside belly button

Back of the knees

In and around the hair

Between the legs

Around the waist

<https://www.cdc.gov/ticks/index.html>

<https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-minute-tips-to-best-remove-ticks/>

If You Are Staying For Lunch

Please be aware that HNC is a *“Pack It In, Pack It Out”* facility, so trash from lunch will need to go with you back to school. This allows an opportunity to teach students about how our choices affect the environment, and how they can help to reduce, reuse and recycle our resources. Here are some tips:



Use a lunch box or reusable bag—even a brown paper bag is good for several lunches. Students can use this bag/box for their leftovers and trash.



Try using reusable /recyclable containers for drinks.



Use fruits and veggies that have natural packaging.



Pack sandwiches, desserts or sliced fruits and veggies in reusable, sealed containers.



Bring reusable utensils, either plastic or metal. Take them home, wash them and use them again. Use a cloth napkin or bandana for sticky fingers and spills.



Buy things in bulk. You can make up individual servings using reusable containers—this saves money and reduces garbage.



Teach students about composting. We will ask them to put their compostable garbage (no animal or dairy products) into our compost bins at the Nature Center.

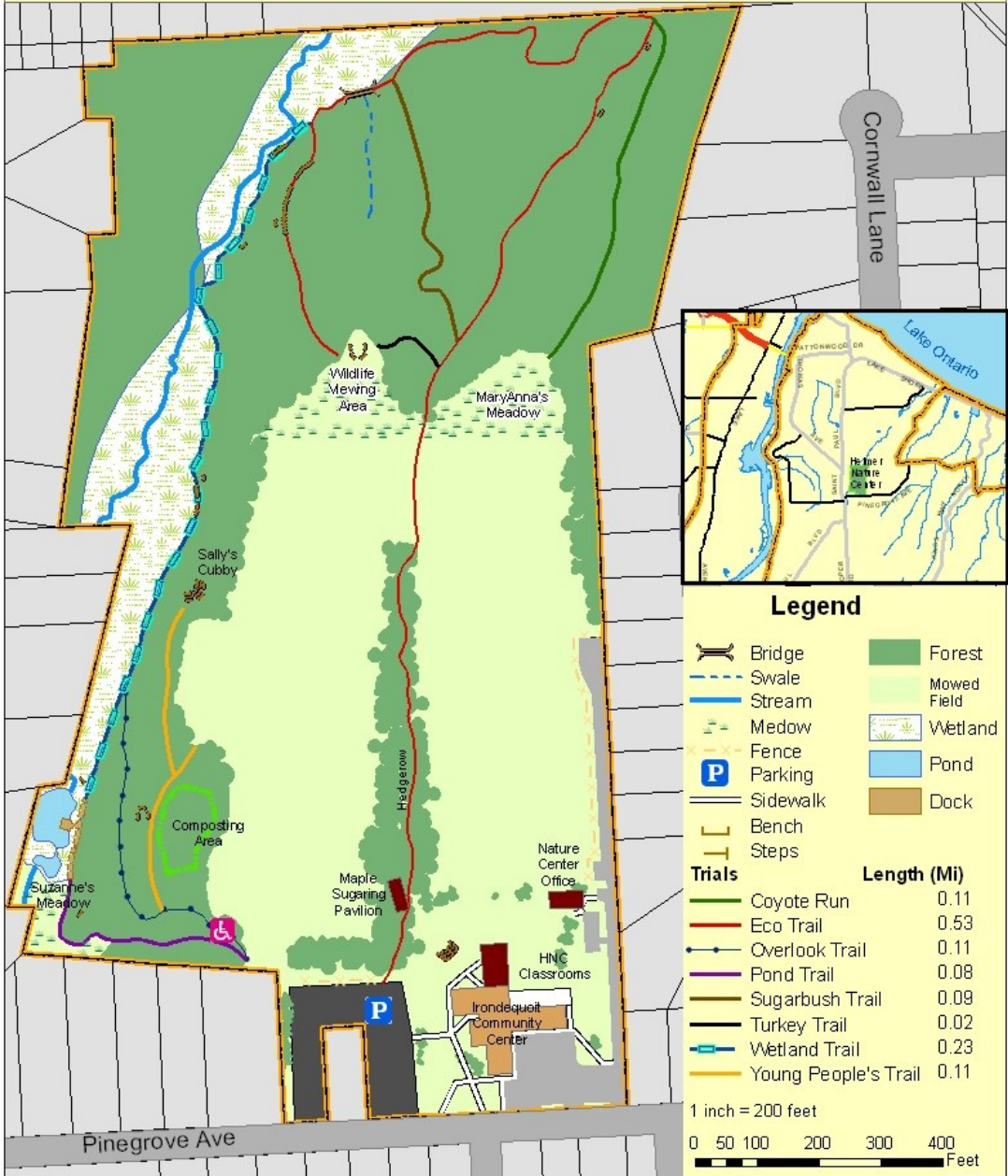
HNC General Policies for Grounds

- In accordance with school district policy, **no dogs or other domestic pets** are allowed on the HNC property. This area is a wildlife sanctuary and domestic pets can cause undue stress for the natural inhabitants. In addition, some visitors are afraid of dogs and narrow trails make it difficult to pass by with room to spare.
- There is **no picking or collecting** at HNC. This includes leaves, seeds and detritus (natural litter). Many of the plants and animals in the nature center are protected by state endangered species laws and it is imperative that visitors pick nothing. There are rare exceptions for school groups, but individuals are requested to “take nothing but pictures, leave nothing but footprints.” There is a fine for removing or harming protected wildflowers.
- Vehicles and running on the trails can cause significant damage by disrupting the trail surface and underlying plant roots. Therefore, we request that there be **no running, bicycles or other vehicles on the trails**. Exceptions include wheelchairs and small strollers when necessary.
- HNC is a very quiet, passive recreation area. Loud music in the wooded and parking areas can spoil walks for others who are enjoying the atmosphere.
- Although we have a pavilion, picnic tables and benches which serve as outdoor classroom spaces, these areas are not public picnic areas and **no fire-building or cooking** is allowed except as part of scheduled HNC programs.
- There are trails at the HNC which are wheelchair accessible and provide a comparable experience for visitors with special needs.
- All groups (schools, scouts, etc.) are required to have an HNC instructor. Individuals and families are welcomed and encouraged to walk the trails quietly from dawn to dusk.



Maggie Brooks
County Executive

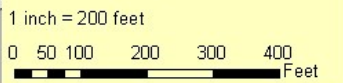
Helmer Nature Center Trail Map



Legend

- Bridge
- Swale
- Stream
- Meadow
- Fence
- Parking
- Sidewalk
- Bench
- Steps
- Forest
- Mowed Field
- Wetland
- Pond
- Dock

Trials		Length (Mi)
	Coyote Run	0.11
	Eco Trail	0.53
	Overlook Trail	0.11
	Pond Trail	0.08
	Sugarbush Trail	0.09
	Turkey Trail	0.02
	Wetland Trail	0.23
	Young People's Trail	0.11



There's more to do at Helmer than just school trips!

Become a Member!

To provide opportunities for families and individuals to participate in fun and educational activities, HNC offers a **membership program**. Typically, member's events include family activities, craft workshops, outdoor recreation, films, lectures, wildlife presentations and other special events such as the annual Trivia Contest. Everyone is invited to join and share in the excitement!

Attend an Event!

Christmas Tree Recycling—January

Trivia Contest—February

Maple Sugar Festival—March

Pancake Breakfast—March

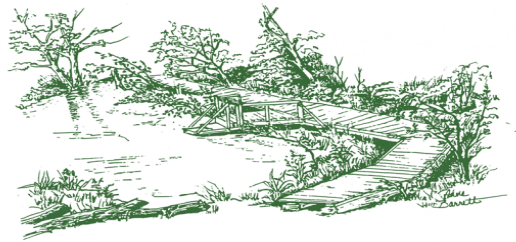
Bloomin' May Baskets—May

Fall Harvest Festival—October

Owl Prowls—October/November

Snowshoe Rentals— Winter

*Check our website for this year's dates and more details



Or walk our trails!

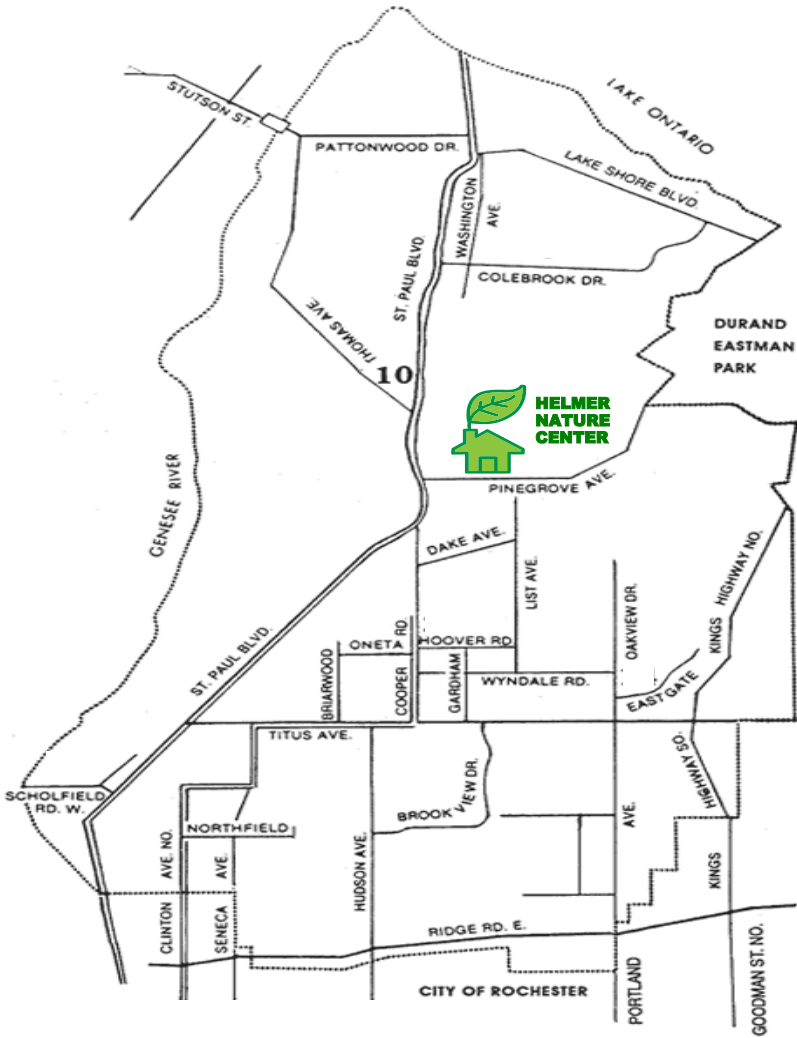
Our trails are open to the public from dusk to dawn. Please respect trail rules as you enjoy your walk.

Helmer Nature Center Staff

Karen Mazzola	Director
Jane Hinsenkamp	Education Coordinator, Naturalist Educator
Katrina Relyea	Staff Naturalist Educator
Jessa Fisher	Staff Naturalist Educator
Nicole Raisanen	Community & Member Events Coordinator
Paul Lazzara	Trails & Grounds Supervisor

HNC Action Council

Geraldine Wilson, Chairperson
James Brennan, Administrative Liaison
Rosa Vargars-Cronin, School Board Liaison
John Vay, School Board Liaison
Margaret Burns
Andrea Heinlein
Jean Walsh
Karen Mazzola, HNC Director



Helmer Nature Center

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Rochester, NY 14617

Owned and operated by
West Irondequoit Central School District

(585) 336-3035

https://www.westirondequoit.org/parents_community/helmer_nature_center