

# LACAWAC SANCTUARY

## PLAN YOUR ADVENTURE WITH US

### *In-Classroom Programs*

Lacawac educators will visit your school, daycare center, preserve, library or community center with a nature-based program that supports your curriculum and learning goals. Our programs are designed to deliver engaging experiences while deepening students' curiosity for and connection to the natural world.

### *Field Trips*

Lacawac offers standards-aligned programs designed to connect students with the natural world and bring STEM to life through the lens of nature. Our environmental educators are trained to deliver developmentally appropriate programming that is relevant to children from all backgrounds and abilities.

Students will learn through participating in hands-on, inquiry-based activities at stations around Lacawac's 550-acre preserve. Sites to explore include our pond, lake, meadow, and forest. With the help of Lacawac's environmental educators, your students will learn to navigate the natural world and investigate environmental concepts, building from their own curiosity.

**BOOK NOW**

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🌐 <https://www.lacawac.org/>



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# LACAWAC SANCTUARY PROGRAMS

2024

## In-Classroom Programs

### Avian Adaptations

Duration: 1 hour

(Grades K-3)

- Role play bird adaptations.
- Match food source to beak adaptation.
- Interact with skulls, feathers, and mounted specimens.
- Classify birds according to characteristics.

### CSI (Critter Science Investigations) - Habitats and Adaptations

Duration: 1 hour

(Grades 1-3)

- What animal is it? Where does it live?
- During an investigation using critical thinking, students
  - open clue envelopes to determine habitat needs (food, water, shelter).
  - interact with skulls, fur, tracks, and scat to discover adaptations.
- Problem solve to identify the animal and where it lives.

### Skins and Skulls – Mammal Adaptations

Duration: 1 hour

(Grades K-3)

- Observe characteristics of animals to identify local mammals.
- Match fur samples to animal skulls using field guide cards.
- Determine adaptations and habitat needs using observation.
- Identify differences between predator and prey to build a food web.



# LACAWAC SANCTUARY PROGRAMS

## 2024

### In-Classroom Programs

#### Awesome Owls - Discovery and Dissection

Duration: 1 hour

(Grades 3-6)

- Introduction to owl biology and food chains.
- Interact with owl skulls, feathers, and mounted specimens.
- Dissect an owl pellet, identify bones, and reconstruct a rodent skeleton.

**\*An additional \$25 per class for materials.**

#### Aquatic Investigations: Macros in the Classroom

Duration: 1 hour

(Grades 4-6)

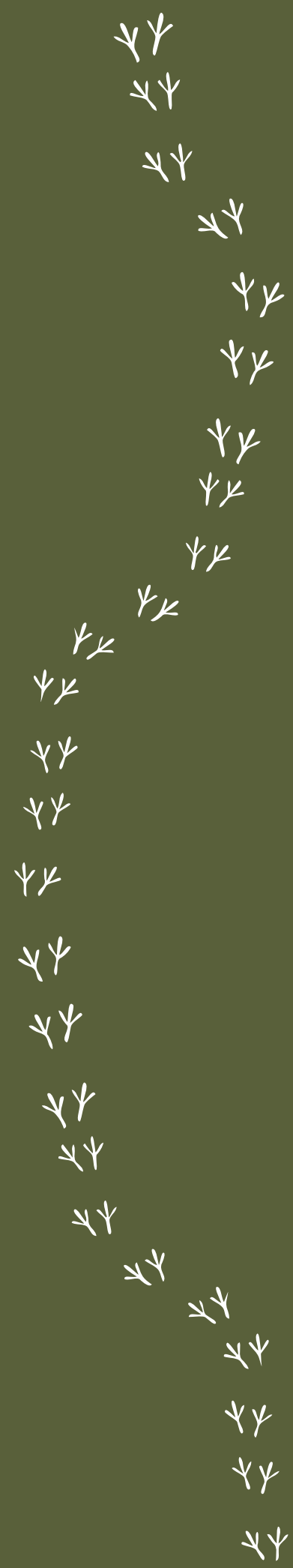
- Sort and identify aquatic organisms.
- Classify macroinvertebrates according to taxa.
- Analyze data to determine water quality.
- Identify how humans can impact water ecosystems.

#### Watershed Connections

Duration: 1 hour

(Grades 4-6)

- Trace on a map the flow of water from your school to the ocean to learn the watershed address.
- Form a hypothesis prior to conducting an experiment.
- Small groups create variable surface cover models to measure and record runoff versus infiltration to understand storm water management and groundwater dynamics.
- Identify how water cycles through the environment and the importance of water as a natural resource.



# LACAWAC SANCTUARY PROGRAMS

## 2024

### K-6th Field Trips

#### **Sense of Wonder**

(Grades: PreK-K)

Duration: 2 hours

Young adventurers will use their senses to explore Lacawac's living classroom. Activities such as looking for shapes and colors, listening to forest sounds, and using their hands to find textures will foster an appreciation and curiosity for the natural world.

#### **Earth Cycles**

(Grades: K - 1)

Duration: 2 - 3 hours

Observe the fascinating changes in nature on an exciting forest exploration. Seasons, weather, even animals and plants change as they grow. Search for nymphs, larva, seedlings, and more while identifying life stages. Using insect and amphibian models, students will reconstruct the steps from egg to adult.

#### **Amazing Adaptations**

(Grades: 1-2)

Duration: 2 - 3 hours

Discover tricks animals use to survive. Experiential activities support the discovery of living and nonliving things by exploring structure and movement. Play an interactive predator/prey game. Learn the importance of camouflage in a forest habitat.

**Add a free "CSI" animal investigation classroom program to learn more about habitats and adaptations to enhance your field experience.**



# LACAWAC SANCTUARY PROGRAMS

## 2024

### K-6th Field Trips

#### **Nature Detectives**

(Grades: 2-3)

Duration: 2 - 3 hours

Look for clues to discover the telltale signs left by animals. Critical thinking and problem solving are key components to this fun and interactive excursion. Collect and classify plants and animals based on characteristics. Learn about biodiversity and habitat needs through inquiry and exploration.

**Add a free "CSI" critter science investigation classroom program to learn more about habitats and adaptations to enhance your field experience.**

#### **Watershed Connections**

(Grades: 4-6)

Duration: 3 hours

Using dip nets, students will collect and sort aquatic macroinvertebrates from a lentic ecosystem. During a lab station students identify organisms to determine water quality. A walk through the watershed will give students an opportunity to interact with wetlands and a forest ecosystem to determine how land use affects runoff, infiltration, and water quality. Students identify the boundaries of the Lacawac watershed using a topographic map. Data collected during the trip will be used to make conclusions about the role humans play in maintaining a healthy water supply.

**Add a free Water Connections program to learn more about watershed and our relationship to them to enhance your field experience.**



# LACAWAC SANCTUARY PROGRAMS

## 2024

### 6th-12th Field Trips

#### Forest Ecology

(Grades: 6-8)

Duration: 3 hours

Observe current scientific research being done in a terrestrial ecosystem. Use a dichotomous key to identify trees in order to conduct an investigation. Compare plant diversity in and out of a deer enclosure and use scientific methods to measure vegetation cover in the canopy and forest floor to determine the impact of deer populations.

#### Advanced Forest Ecology

(Grades 9-12)

Duration: 3 hours

Participate in data collection for current research to study the effects of deer populations in and out of the deer enclosure. Students will analyze forest data and make predictions about the correlation between the deer population and birds, epigeal animals, ground cover and canopy. Schools will potentially be included in a published research paper.



# LACAWAC SANCTUARY PROGRAMS

2024

## 6th-12th Field Trips

### Advanced Water Ecology

(Grades: 9-12)

Duration: 4 hours

Students will participate in current, authentic research by utilizing scientific equipment to collect aquatic samples and input the results into global databases. Lacawac's Director of Science and Research, who collaborates with international scientists studying lakes, will assist students in data analysis. Students perform a comparative analysis of the biological and physical properties of Lake Lacawac and Heron Pond. Importance of STEM degrees and careers are emphasized in this intensive water ecology study.

### Advanced Water Ecology – Making Connections through Inquiry

(Grades: 9-12)

Duration: 1 to 2 classroom visit(s) and a 4-5 hour field trip

The impacts of water quality on the aquatic ecosystem is explored through scientific literature and research currently being conducted on Lake Lacawac. Students analyze data and test water samples brought to the classroom. Students investigate chemical and sensor parameters, as well as biological parameters such as macroinvertebrates and plankton. All background information and equipment are supplied. Students are guided through the inquiry process to develop a question and design a field investigation. At Lacawac, student teams perform their investigation, analyze the collected data, and share their findings in a simulated dissertation presentation. Lacawac's Director of Science and Research, Dr. Beth Norman, a freshwater ecologist with 15 years' experience studying lakes and streams and international collaboration will present a lake ecology analysis and assist students in data analysis.



# LACAWAC SANCTUARY PROGRAMS

## 2024

### Special Needs Field Trips

#### **Sense of Wonder**

Students will use their senses to explore Lacawac's living classroom. Activities such as looking for shapes and colors, listening to forest sounds, and using their hands to find textures will foster an appreciation and curiosity for the natural world.

#### **Earth Cycles**

Explore a forest habitat while discovering the changes that occur in nature over time. All things change, from plants and animals to weather and the seasons. Observe life cycles while searching for nymphs, larva, seedlings and more. Using insect and amphibian models, students will reconstruct the steps from egg to adult.

#### **Amazing Adaptations**

Discover tricks animals use to survive. Experiential activities support the discovery of living and nonliving things by exploring structure and movement. A tactile activity using skulls and furs will give students an opportunity to touch and learn about animal adaptations.

#### **Water Ecology**

Using dip nets, students will collect, observe, and identify aquatic macroinvertebrates to determine water quality at Heron Pond. An interactive walk will give students an opportunity to experience the unique aspects of a wetland. Students use their senses to interact with plants, soil, and "critters" along the way.

#### **Sensory Journey**

Educators use a combination of activities from the programs above to meet the needs of the students. Students are encouraged to use their senses to experience forest and water habitats. Educators use manipulatives to help focus the students attention and engage them during hands-on exploration.





# LACAWAC SANCTUARY PROGRAMS

## 2024

### Program Add-Ons

#### Art and Nature

(Grades: 1-5)

Put the A in STEAM. Grade appropriate activities are provided in which students use observation skills to create artwork using nature as a template. Topics to choose from include color, patterns, nature journaling, and Andrew Goldsworthy inspirations.

#### Fishing

(Grades: 4-12)

Students are instructed on the types of fish found in Pennsylvania, fish habitats, safety, equipment, outdoor manners, and protecting our water resources. Each participant learns basic fishing skills and gets to put those skills to use by learning to tie a fishing knot, practice casting, and trying to catch a fish in Heron Pond.

**Maximum 20 students at a time.**

#### Magic Spots

(Grades: K-4)

Research overwhelmingly supports the positive affects of unstructured play and connections to nature. Children today are rarely given the opportunity to spend time alone, to discover and observe the natural world on their own. During this program, students are given the opportunity to spend time "alone" in the forest to make observations. Each student chooses a "magic" spot to spend an age appropriate amount of time in which they first get the wiggles out, then the boredom before settling into a time of quiet observation. It truly is magical to observe students quietly engaged in nature observation.



# LACAWAC SANCTUARY PROGRAMS

## 2024

### Program Add-Ons

#### Forest Bathing

(Grades: 4-12)

A guided slow walk in the woods that focuses on a mind-body immersion practice of beathing in the forest. During this experience, student will be guided through observation and breathing techniques. Shinrin-Yoku, otherwise know as Forest Bathing. In the 1980s Japanese scientists began searching for ways to minimize all the negative impacts that urbanization was having on individuals and society as a whole. They discovered that a two- to three-hour immersion in which one relaxes and breathes in the natural chemistry of a forest, can reduce stress levels, improve mood, increase restfulness, and boost one's immune system. They called this practice "Shinrin-yoku" which literally translates "forest bath," the art of taking in the atmosphere of the forest.

#### Canoeing

(Grades: 6-12)

Paddle on beautiful Lake Lacawac. Students are given instruction on water safety, paddling techniques, and fitted into lifejackets. This is a unique opportunity to paddle on what is considered the most pristine glacial lake in North America. Students are given a brief background on glaciation, lake ecology, and the current research happening on the lake. Maximum 20 students per time period.

#### Geocaching / Map and Compass

(Grades 5-10)

Use our GPS units to learn skills and find geocaches at Lacawac. Students learn and practice a fun and useful skills with a map and compass. Students use local topographic maps to find geologic features, read contour lines and legend symbols, orient the map with a compass, and match a location on the map to a location at Lacawac. Choose one or both depending on group size and time.

#### Team Building

(Grades: 3-12)

Team Building programs consist of a series of challenging outdoor problems designed to foster leadership, self-confidence, communication, and teamwork within the class/group. The program requires participation of all team members to plan and execute the solutions to physically and mentally stimulating tasks. Each group's Team Building experience will be designed to suit the ages and abilities of the group. The focus of the program is on the process, so the number of activities completed may vary.



# LACAWAC SANCTUARY PROGRAM PRICES

## 2024

Field Trips	Grade	Program Length	Pricing	Additional Programs
Sense of Wonder	Prek-k	2 hours	\$110.00 per/class	
Earth Cycles	K-1	2 hours	\$110.00 per/class	
		3 hours	\$150.00 per/class	
Amazing Adaptations	1-2	2 hours	\$110.00 per/class	Add a free "CSI" animal investigation classroom program
		3 hours	\$150.00per/clas	
Nature Detectives	2-3	2 hours	\$110.00 per/class	Add a free "CSI" animal investigation classroom program
		3 hours	\$150.00 per/class	
Watershed Connections	4-6	3 hours	\$150.00 per/class	Add a free classroom visit
Stand alone field trip	Prek-6	3 hours	\$150.00 per/class	
Forest Ecology	6-8	3 hours	\$150.00 per/clas	
Advanced Forest Ecology	9-12	3 hours	\$150.00 per/clas	
Advanced Water Ecology	9-12	4 hours	\$200.00 per/class	
Advanced Water Ecology- Making Connections	9-12	4-5 hours	\$300.00 per/class	Includes 1 to 2 classroom visit(s)
Special Needs Field Trip		2 hours	Free	Can include classroom visit
Additional Prices: Class sizes are based on 30 students. After 30 there is an additional \$2.00 fee per/person		Discounts: If scheduling more than 5 classes and do not already have a scholarship in place you are eligible for 10% off each additional class.		Teachers and Chaperones: Free

Add on programs	Grade	Program Length	Pricing
Art and Nature	1-5	1 hour	\$75.00 per/class
Fishing	4-12	1 hour	\$75.00 per/class
Magic Spots	K-4	1 hour	\$75.00 per/class
Forest Bathing	4-12	1 hour	\$75.00 per/class
Canoeing	6-12	1 hour	\$75.00 per/class
Geocaching/ Map and compass	5-12	1 hour	\$75.00 per/class
Team Building	3-12	1 hour	\$75.00 per/class
Additional Prices: Class sizes are based on 30 students. After 30 there is an additional \$2.00 fee per/person		Add on programs: Can be added onto a field trip or mix and match any (3) to create your own program.	

Classroom Programs	Grade	Program Length	Pricing
Avian Adaptations	K-3	1 hour	\$75.00 per/class
Skins and Skulls – Mammal Adaptations	K-3	1 hour	\$75.00 per/class
CSI (Critter Science Investigations) - Habitats and Adaptations	1-3	1 hour	\$75.00 per/class or Free with Amazing Adaptations or Nature Detectives
Awesome Owls - Discovery and Dissection	3-6	1 hour	\$75.00 per/class
Aquatic Investigations: Macros in the Classroom	4-6	1 hour	\$75.00 per/class
Watershed Connections	4-6	1 hour	\$75.00 per/class or Free with Field Trip
Additional Prices: Class sizes are based on 30 students. After 30 there is an additional \$2.00 fee per/person		Discounts: If scheduling more than 5 classes and do not already have a scholarship in place you are eligible for 10% off each additional class.	

# FACILITIES MAP

Lacawac Sanctuary has a long history that reaches back to colonial times and touches on the forestry and coal industries of the early 19th century. The Sanctuary operates numerous environmental education programs, manages a suite of university-level research programs, and continuously works to preserve the high quality of the lake and its surrounding landscape. Since 1966, the Sanctuary grew to 500 acres, including a mature second growth forest, Lake Lacawac, two ponds, several wetlands and over a mile of shoreline along Lake Wallenpaupack.

**COMING 2023** William E. Chatlos Environmental Education Center



Lacawac Sanctuary Field Station and Environmental Education Center is an independent, non-profit, environmental education organization located on the shore of Lake Wallenpaupack in the Northern Poconos.

We are dedicated to inspiring lifelong connections to nature and shaping the next generation of scientists and earth stewards through research, education, and preservation.

  
**LACAWAC**  
SANCTUARY & BIOLOGICAL FIELD STATION

Trail	Distance	Surface	Difficulty
MB	Maurice broun Trail 0.2 Miles	Natural	intermediate
MB	Maurice broun Spur 0.2 Miles	Natural	easy
LL	lake lacawac trail 1.1 Miles	Natural	intermediate
LL	lake lacawac spur 0.1 Miles	Natural	easy
PR	Partner Ridge Trail 0.4 Miles	Natural	intermediate
L	Ledges Trail 0.7 Miles	Natural	easy
BL	trail 2.9 miles	gravel	Beginner
GC	camp trail 1.0 miles	gravel	Advanced
O	osprey Trail 0.2 miles	natural	intermediate
A	A. Watres Trail 0.2 miles	natural	Advanced
W	Carriage trail 0.2 miles	natural	Beginner
C	White oak trail 0.2 miles	natural	Beginner
W	lakefront trail 0.8 miles	natural	Beginner
O	Warbler trail 0.8 miles	natural	Beginner
LF	Rhododendron trail 0.2 miles	natural	Beginner
W	WILD TURKEY trail 0.2 miles	natural	Beginner
R	MOSS trail 0.1 miles	natural	Beginner
**Trail also serves vehicle traffic, Use caution			

	Wetland Area	intermediate
	deciduous tree Dominant	easy
	conifer tree dominant	easy
	road	
	Stream	
	Deer Enclosure	

