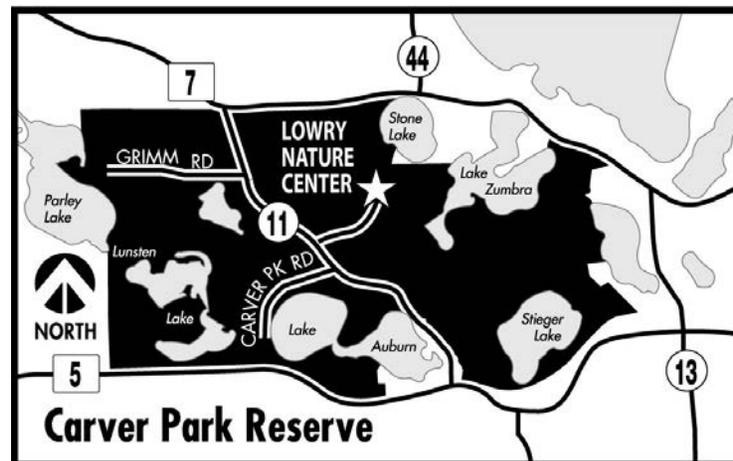




# LOWRY NATURE CENTER Education Programs

FIELD TRIPS TO OUR CENTER  
& PROGRAMS BROUGHT TO YOU



## Lowry Nature Center

Carver Park Reserve  
7025 Victoria Drive  
Victoria, MN 55386  
763.694.7650

[ThreeRiversParks.org](http://ThreeRiversParks.org)

*Find Three Rivers Park District– Lowry Nature Center  
on Facebook too!*



## Dear Educators,

A classroom needn't have four walls...

Our educational programs offer a variety of interactive and interdisciplinary experiences focused on learning in the out-of-doors. Programs incorporate content from such diverse fields as natural and cultural history, the arts and mathematics, and include a hike, hands on activities, sensory experiences or time for self-expression through art or writing.

Lowry's professional educators are able to help you select from an existing program which connects with your current classroom study, or they can work with you to develop a unique program to meet the educational and recreational needs of your group. Many classes can also be brought to you! If bussing is a roadblock, let us bring our programs to your classroom, or to an outdoor area near you.

Looking forward to seeing you outside!

Sincerely,

*Allison Neaton*

Supervisor  
Lowry Nature Center  
Carver Park Reserve  
Three Rivers Park District

## Plan your program:

Choose a program from within this booklet to fit your needs or work with one of our professional educators to design a program with your class in mind.

Decide if you would like to take a trip to Lowry Nature Center or if you would like a program brought to you.



*The blue bus identifies programs we can bring to your school, local park or nature area.*

At Lowry Nature Center:

- Programs are up to 2 or 4 hours in length
- Indoor lunch facilities are available

At Your Site:

- Programs are booked in 1 hour blocks
- All equipment is brought to you
- Additional fee for raptors

Program fee is determined by the number of students and length of program. Chaperones are free of charge. Program fee assistance is available. Ask for a *Wonder Fund* application form when scheduling your program.

Call 763-694-7650 to schedule. Plan ahead! Sept, Oct, Jan, Feb, Apr, and May are especially busy times. Dates can be reserved up to one year in advance.

# PROGRAMS THAT EDUCATE

# AND INSPIRE

Call 763-694-7650 for Information and Reservations

## PRESCHOOL AND KINDERGARTEN

All of the preschool and kindergarten topics can include **Puppet Escapades and Exploration Stations.**

- Entertaining and educational puppet shows introduce the theme of the day to the kids.
- Exploration stations offer time for kids to have self-directed, hands-on exploration around the topic.



### Seasons of Nature



All Seasons

Minnesota's four seasons offer great opportunity for exploration, comparison, and observation of changes. Weather changes affect both living and non-living components of the environment. Find out what MN plants and animals do to survive throughout the year and ways that seasons shape how we live.

*Science Standards: scientific inquiry, weather, diversity of life, interdependence in natural systems*

### Animal Life Cycles



Fall and Spring

Explore the varied life cycles of MN animals. Learn survival strategies used by insects, amphibians, reptiles, birds and mammals.

*Science Standards: scientific inquiry, diversity, interdependence*

## PRESCHOOL AND KINDERGARTEN

### Trees and Seeds



Fall, Summer

What do trees need to grow? Learn about common trees, identify leaves, bark, and seeds, and recognize products made from trees.

*Science Standards: scientific inquiry, diversity of life, identify plant parts, interdependence in natural systems*

### Maple Syruping

March

Discover unique characteristics of the Sugar Maple and why its sweet treat can only be produced once a year. Tap a tree, collect maple sap and learn how sap is cooked into syrup.

*Science Standards: observations, weather, plant characteristics*  
*Social Studies Standards: family life today and in the past*

### Pioneer Life

Fall, Spring, Summer

Learn about pioneer farm life at a 19th century farm house. Help with chores, play pioneer games and role-play "packing" for immigration.

*Social Studies Standards: family life today and in the past*



# PROGRAMS THAT EDUCATE

# AND INSPIRE

Call 763-694-7650 for Information and Reservations

## FIRST AND SECOND GRADE

### Insects of the Field and Forest

Fall, Spring, Summer

Learn the characteristics of an insect and the differences between an invertebrate and an insect. Compare their life cycles, and search forest and field habitats for insects and their homes.

*Science Standards: describe and sort animals, animal life cycles*



### Insects of the Ponds and Wetlands

Fall, Spring, Summer

Learn the characteristics of an insect and the differences between an invertebrate and an insect. Compare their life cycles, and visit ponds and wetlands to search for aquatic invertebrates.

*Science Standards: describe and sort animals, animal life cycles*



### Soils

Fall, Spring, Summer

Soils are made from much smaller particles. Learn the differences between clay and sand by feel, explore the relationship between plants and soil, and learn about animals found in the dirt.

*Science Standards: natural systems, properties of earth materials*



### Maple Syruping

March

Hike in the woods to tap a tree, collect maple sap and learn how sap is cooked into syrup. Discover unique characteristics of the Sugar Maple and why its sweet treat can only be produced once a year. Learn about maple sugaring traditions of American Indians.

*Science Standards: observations, weather, plant characteristics*

*Social Studies Standards: family life today and in the past*



## FIRST AND SECOND GRADE

### Plants

Fall, Spring, Summer

Learn about trees, grasses, and wildflowers and how they're the same and different. Find out what plants need to grow and about their life cycles. Dissect seeds and experiment with seed dispersal.

*Science Standards: plant characteristics, needs, life cycles*



### Weather

All Seasons

Observe wind direction, air pressure, clouds, and precipitation. Learn to use basic tools to measure weather properties and try making a forecast for tomorrow.

*Science Standards: tools for problem solving, states of water, recording weather conditions*



### American Indians

Fall, Spring, Summer

Explore the lives of American Indians in Minnesota past and present through activities focusing on technology, culture, and life through the seasons.

*Social Studies Standards: Use of tools, family life today and in the past*



### Bees and Pollination

May through September

Discover the properties and social systems of a bee hive through observing a real working community. Learn about insect life cycles, pollination and how humans depend on bees.

*Science Standards: engineering design, states of water, weather*

### Pioneer Life

Fall, Spring, Summer

Learn about pioneer farm life at a 19th century farm house. Help with chores, play pioneer games, and learn about "packing" for immigration.

*Social Studies Standards: family life today and in the past*

# PROGRAMS THAT EDUCATE

# AND INSPIRE

Call 763-694-7650 for Information and Reservations

## FIRST AND SECOND GRADE

### Ice and Snow

Winter

Discover properties of snow and ice through experimentation and fun. Drill into the ice to see how it forms, dig in the snow to learn about its different states, and experiment with motion and properties of snow on the sledding hill.

*Science Standards: engineering design process, states of water, weather*

### Birds

All Seasons

Tools, experiments and live birds help teach characteristics and identification of common MN birds. Learn how biologists identify birds and explore bird habitats. Collect simple data at bird feeders, and hear about ongoing research at Carver Park Reserve.

*Science Standards: describe and sort animals, animal life cycles, observations for questions, characteristics and behaviors, animal needs and habitats*



## THIRD THROUGH FIFTH GRADE

### Animals Inside Out

All Seasons

Animals look different on the outside but look much the same on the inside. Analyze animal bones and skeletons to learn about the bones that all vertebrates have in common and how they provide structure, protection and movement.

*Science Standards: groups of plants and animals, structure and function, explanations from evidence*



### Reptiles and Amphibians

Fall, Spring, Summer

Compare and contrast the characteristics of reptiles and amphibians while visiting live animals, exploring their habitats, and playing games.

*Science Standards: differences and survival, groups of animals*



### Raptors

All Seasons

Learn the characteristics that make raptors unique from other birds through a dress-up activity. Fly into their world with predator/prey games, eyesight and hearing tests. Meet a live raptor to observe the characteristics first hand.

*Science Standards: groups of animals, differences and survival*



### Earth, Moon, and Stars

All Seasons

Travel through space without leaving the earth. View stars and constellations from within a star bag. Take a tour of our solar system and make stops at the moon, sun, planets, infinity and beyond.

*Science Standards: sun observations, moon shapes and positions, apparent size of light source, orbits of planets and the moon*



# PROGRAMS THAT EDUCATE

# AND INSPIRE

Call 763-694-7650 for Information and Reservations

## THIRD THROUGH FIFTH GRADE

### Winter Ecology and Adaptations



Winter

Discover the many fascinating ways plants and animals adapt to our MN winters. Hike on foot or on snowshoes in search of animals, tracks and signs. Experiment with insulation properties of fur, feathers, snow and clothes.

*Science Standards: tools and math, sun observations, states of matter, diversity*

### Wilderness Skills



All Seasons

Learn how the environment impacts humans in a survival situation. Discover the skills of fire-building and survival-shelter construction. Do you have what it takes to build a one-match fire?

*Science Standards: practice of engineering, energy transformed*

### Water Cycle and Water Quality



Fall, Spring, Summer

Learn how water moves around the planet. Observe and analyze wetlands for diversity of animal and plant life. Perform quantitative and qualitative tests on water samples. Discuss how humans affect water supply and actions to take better care of our water.

*Science Standards: inquiry, water cycle, water, interdependence, humans change environments*



## THIRD THROUGH FIFTH GRADE

### Human Interactions with the Earth



All Seasons

We interact with the environment both positively and negatively. The use of our resources ~ renewable or non-renewable ~ can change ecosystems. Learn some way humans impacts the earth and problem-solve some solutions.

*Science Standards: impacts of the designed world, renewable vs nonrenewable resources, changes in natural systems*

### Geology and Landforms



Fall, Spring, Summer

Natural processes have changed the land over time. Hike to see changes caused by glaciers, streams, rivers and people. Analyze rocks and soil and their components.

*Science Standards: states of matter, rock and minerals, surface changes*

### Reading the Land—Digging Into the Past

Fall, Spring, Summer @ Lake Minnetonka Regional Park

Learn about the Lake Minnetonka area from glacial times to the present. Discover how glaciers shaped the land, explore how American Indians lived, and see evidence of early pioneers.

*Social Studies Standards: many people and cultures meet in the making of North America, family life today and in the past*

### Pioneer Life

Fall, Spring, Summer

Learn about pioneer farm life at a 19th century farm house. Help with chores, play pioneer games and learn about “packing” for immigration.

*Social Studies Standards: family life today and in the past*

### American Indians



Fall, Spring, Summer

Explore the lives of American Indians in MN past and present, through activities focusing on technology, culture, and life through the seasons.

*Social Studies Standards: family life today and in the past*

# PROGRAMS THAT EDUCATE

# AND INSPIRE

Call 763-694-7650 for Information and Reservations

## SIXTH THROUGH EIGHTH GRADE

### Ecosystem Explorations

All Seasons

Learn factors that influence whole ecosystems and their components. How have humans profoundly affected our natural systems? Explore three different habitats and the animals they support.

*Science Standards: investigating systems, populations and communities, roles of organisms, photosynthesis, food webs, humans changing ecosystems, matter transfer*



### Relationships and Energy Flow

All Seasons

The sun is the source of...everything! All energy can be traced back to the sun. Explore the structure of systems, relationships between producers, consumers and decomposers, and learn how organisms extract energy. Study food webs, and the relationships between predators and their prey.

*Science Standards: photosynthesis, roles of organisms, populations and resources, food webs, matter transfer in ecosystems*



## SIXTH THROUGH EIGHTH GRADE

### Reading the Land—Digging Into the Past

Fall, Spring, Summer @ Lake Minnetonka Regional Park

Learn about the Lake Minnetonka area from glacial times to the present. Discover how glaciers shaped the land, explore how some Native Americans lived, and see evidence of early pioneers.

*Social Studies Standards: many people and cultures meet in the making of North America, family life today and in the past*

### American Indians

Fall, Spring, Summer

Explore the lives of American Indians in MN past and present, through their technology, culture, and life through the seasons.

*Social Studies Standards: family life today and in the past*



### Rocks and Minerals

Fall, Spring, Summer

Discover how the Earth has been shaped over geological time by movement of tectonic plates, weathering and erosion. Analyze rocks to study their properties.

*Science Standards: metals vs. non-metals, layers of the earth, landform formation, Minnesota landscape, rock formation*

### Wildlife Ecology and Population Studies

All Seasons

Participate in real field science and population monitoring! Assist with population monitoring through monarch tagging or bird banding. Learn how data is used to track migration, participate in simple population surveys or habitat restoration projects.

*Science Standards: investigating systems, investigative methods, populations and communities, societal influences*

### Human Interactions with the Earth

All Seasons

See how use of our resources ~ renewable or non-renewable ~ can change eco-systems. Learn some ways we impact the environment, and problem-solve some solutions.

*Science Standards: impacts of the designed world, renewable vs nonrenewable resources, changes in natural systems*



## Learning in Nature: taking it beyond a field trip

Connecting with nature builds a lifelong appreciation of the complexity and fragility of life. Outdoor learning experiences can be extraordinarily rewarding and help students to create these connections. One field trip experience or program at your location is wonderful. Multiple, cumulative experiences are even better.

If you are interested in taking learning in nature to the next step, we can work with you to:

- Plan pre- and post-trip activities for your students
- Meet with your teachers to talk about integrating outdoor learning into your classroom lessons
- Plan a field trip series with experiences that build on each other and reinforce learning topics
- Plan a program series at your school or nearby natural area
- Work with your school or organization to create outdoor learning areas



### Lowry Nature Center Education Programs at a Glance

|                                   | Fall  | Winter   | Spring  | Summer  |
|-----------------------------------|---|--|---|---|
| <b>Preschool and Kindergarten</b> | Trees and Seeds<br>Animal Life Cycles<br>Seasons of Nature<br>Pioneer Life  | Seasons of Nature<br>Maple Syruping (March)  | Animal Life Cycles<br>Seasons of Nature<br>Pioneer Life   | Seasons of Nature<br>Trees and Seeds<br>Pioneer Life  |
| <b>First and Second Grade</b>     | Insects of Field/Forest<br>Insects of Ponds<br>Soils, Plants<br>Bees and Pollination<br>Birds, Weather<br>Pioneer Life<br>American Indians  | Ice and Snow<br>Maple Syruping (March)<br>Weather<br>Birds   | Insects of Field/Forest<br>Insects of Ponds<br>Soils, Plants<br>Birds, Weather<br>Pioneer Life<br>American Indians  | Insects of Field/Forest<br>Insects of Ponds<br>Soils, Plants<br>Birds, Weather<br>Bees and Pollination<br>Pioneer Life<br>American Indians  |
| <b>Third through Fifth Grade</b>  | Animals Inside Out<br>Reptiles and Amphibians<br>Raptors<br>Earth Moon Stars<br>Wilderness Skills<br>Landforms, Water Cycle<br>Human Interactions<br>American Indians<br>Pioneer Life<br>Reading the Land | Animals Inside Out<br>Winter Ecology<br>Raptors<br>Earth Moon Stars<br>Wilderness Skills<br>Human Interactions | Animals Inside Out<br>Reptiles and Amphibians<br>Raptors<br>Earth Moon Stars<br>Wilderness Skills<br>Landforms, Water Cycle<br>Human Interactions<br>Pioneer Life<br>American Indians<br>Reading the Land | Animals Inside Out<br>Reptiles and Amphibians<br>Raptors<br>Earth Moon Stars<br>Wilderness Skills<br>Landforms, Water Cycle<br>Pioneer Life<br>American Indians<br>Human Interactions<br>Reading the Land |
| <b>Sixth through Eighth Grade</b> | Ecosystem Explorations<br>Wildlife Ecology<br>Rocks and Minerals<br>Relationships & Energy<br>Reading the Land<br>American Indians<br>Human Interactions  | Ecosystem Explorations<br>Wildlife Ecology<br>Relationships & Energy<br>Human Interactions                     | Ecosystem Explorations<br>Wildlife Ecology<br>Rocks and Minerals<br>Relationships & Energy<br>Reading the Land<br>Human Interactions<br>American Indians  | Wildlife Ecology<br>Ecosystem Explorations<br>Rocks and Minerals<br>Relationships & Energy<br>Reading the Land<br>Human Interactions<br>American Indians  |