

Richardson Nature Center - School Program Offerings

Presented by professional naturalists

For reservations call 763.694.7676

Welcome to Richardson Nature Center in Hyland Lake Park Reserve. Naturalists have designed a variety of hands-on and in-the-field units for all seasons and all ages. School programs are provided on site or at your school for an outreach experience. Most programs are designed for a 1.5- to 2-hour time block. You can pair topics for a full-day experience as well.

Curriculum standards have been identified for each program listed. You can request our detailed standards chart to help aid your decision. The programs have been adapted for each grade level and address the grades graduated standard needs; however, we can likely modify a given topic to a different grade level. We want your visit to provide a unique and personal learning opportunity, to enhance classroom lessons, to develop environmental awareness, and to promote stewardship.

	Fall (Sept/Oct/Nov)	Winter (Dec/Jan/Feb)	Spring (Mar/Apr/May)
Grades K-2	<ul style="list-style-type: none"> • Birds • Insects • Mammals • Pond & Water Studies • Reptiles & Amphibians • Seeds • Plant Structures & Functions • Soils & Decomposers • Weather & Phenology • Apple Cidering • How Nature Adapts to Winter • Sensory Hike 	<ul style="list-style-type: none"> • Animal Tracks & Signs • Birds • Mammals • Reptiles & Amphibians • Weather & Phenology • How Nature Adapts to Winter • Sensory Hike • Snowshoeing & Kicksledding 	<ul style="list-style-type: none"> • Birds • Insects • Mammals • Pond & Water Studies • Reptiles & Amphibians • Seeds • Plant Structures & Functions • Soils & Decomposers • Weather & Phenology • Maple Syruping • Sensory Hike
Grades 3-5	<ul style="list-style-type: none"> • Bees & Other Pollinators • Birds • Camouflage and Other Survival Adaptations • Forest & Trees • Insects • Mammals • Pond & Water Studies • Prairie • Raptors • Reptiles & Amphibians • Plant Structures, Functions & Adaptations • Soils & Decomposers • Solar Energy (Grades 4-5) • Weather & Phenology • How Nature Adapts to Winter • Historical Skills & Games • Wilderness Skills 	<ul style="list-style-type: none"> • Animal Tracks & Signs • Birds • Camouflage and Other Survival Adaptations • Forest & Trees • Mammals • Raptors • Reptiles & Amphibians • Solar Energy (Grades 4-5) • Weather & Phenology • How Nature Adapts to Winter • Historical Skills & Games • Snowshoeing & Kicksledding • Wilderness Skills 	<ul style="list-style-type: none"> • Birds • Camouflage and Other Survival Adaptations • Forest & Trees • Insects • Mammals • Pond & Water Studies • Prairie • Raptors • Reptiles & Amphibians • Plant Structures, Functions & Adaptations • Soils & Decomposers • Solar Energy (Grades 4-5) • Weather & Phenology • Maple Syruping • Historical Skills & Games • Wilderness Skills

Grades 6-8	<ul style="list-style-type: none"> • Bees & Other Pollinators • Camouflage and Other Survival Adaptations • Forest & Trees • Pond & Water Studies • Prairie • Raptors • Soils & Decomposers • Solar Energy • Weather & Phenology • How Nature Adapts to Winter • Historical Skills & Games • Wilderness Skills 	<ul style="list-style-type: none"> • Animal Tracks & Signs • Camouflage and Other Survival Adaptations • Forest & Trees • Raptors • Solar Energy • Weather & Phenology • How Nature Adapts to Winter • Historical Skills & Games • Snowshoeing & Kicksledding • Wilderness Skills 	<ul style="list-style-type: none"> • Birds • Camouflage and Other Survival Adaptations • Forest & Trees • Pond & Water Studies • Prairie • Raptors • Soils & Decomposers • Solar Energy • Weather & Phenology • Maple Syruping • Sensory Hike • Historical Skills & Games • Wilderness Skills
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*Most topics can also be adapted for younger or older audiences. Common pre-K topics and activities include birds, trees, pond study, insect collecting, sensory hikes, meeting a live animal, and nature-based puppet shows. High school students can take a more in-depth approach to the listed topics or have a more self-directed experience, such as snowshoeing and nature journaling.

SCHOOL CURRICULUM PROGRAM DESCRIPTIONS

LIFE SCIENCES

Animal Tracks & Signs

Look, listen, and smell for signs of animals that live in Hyland Lake Park Reserve. Follow tracks, locate homes, look for food leftovers and scat, listen for calls and more. May use tools to investigate.

Bees and Other Pollinators

Explore the science of beekeeping and the importance of bees as plant and crop pollinators. Observe working beehives, participate in extraction, measure how much honey a bee can make and taste some raw honey. On a hike, watch pollinators in action—collecting nectar and pollen to transform a flower into a seed.

Birds

Discover the unique characteristics of birds and discover the joy of birding. Hike to observe birds in their habitats and learn how to identify them.

Camouflage and Other Survival Adaptations

Learn how physical and behavioral adaptations help animals survive in different habitats. Hike to observe animals “hiding” in the open, and possibly meet a live animal.

Forest and Trees

Discover the importance of forests. Identify several different Minnesota trees. Learn about the forest layers, animals, and plants that live in the habitat and how people benefit from products of the forest.

Insects

Explore the distinct characteristics of the largest group of animals. Use tools to collect and categorize insects and other invertebrates before releasing them.

Mammals

Compare and contrast predators and prey while investigating mammal skulls and fur. Hike in search of mammal signs. Explore the dynamics between predator and prey.

Plant Structures and Functions

Learn to identify and recognize the importance of roots, stems, seeds, flowers, and leaves. Compare and contrast structures of various Minnesota plant parts to determine how the plant survives and reproduces.

Pond & Water Studies

Find out why aquatic habitats are so important. Catch and observe a variety of aquatic invertebrates. Sort and classify organisms to determine water quality. Magnifiers and a microscope projector can be added for further exploration.

Prairie

Immerse in the sights, sound, smells, textures and inhabitants of the tall-grass prairie. Learn the history and importance of this vanishing ecosystem.

Raptors

Meet one of Richardson's live raptors up close. Discover how these predators are different than other birds. Look at artifacts and hike to their habitats.

Reptiles and Amphibians

Categorize the differences and similarities of reptiles and amphibians. Hike to investigate their habitats and learn about their life cycles. Meet a live amphibian and reptile.

Seeds

Look at the life cycle of a seed. Learn why different plants make seeds and how they travel. Compare different seeds while hiking through a variety of habitats.

EARTH & PHYSICAL SCIENCES**Soils and Decomposers**

Uncover different types of soils, plants, and animals on the forest floor. Explore dead trees and rotting logs in search of decomposers. Can be adapted for older students to study soil compositions more closely.

Solar Energy

Learn how a photovoltaic system on Richardson's roof gathers energy from the sun and converts it into electricity. Build circuits and discover how nature and humans harness the sun's energy through a variety of hands-on activities.

Weather & Phenology

Explore the wonders of weather and seasonal changes. Conduct several short experiments to help us better understand why we have weather and how to measure it. Look for signs of how nature helps us forecast the weather.

SEASONAL EXPLORATION**Apple Cidering**

Uses apple trees as an example to help introduce pollination and tree life cycles. Outside, sort and match different Minnesota leaves and use the five senses to discover the changes of the season. Students will grind and press apples before tasting fresh apple cider.

How Nature Adapts to Winter

Find out which strategies Minnesota plants and animals use to survive winter. May meet a live animal to examine its adaptations and to discuss its survival strategy.

Maple Syruping

Activity stations teach about the making of maple syrup firsthand. Explore the history of maple syrup-making, "tap" a tree, observe and learn how sap is boiled down into syrup at our evaporator, and taste real maple syrup.

Sensory Hike

Use senses to experience the season. Observe changes in sights, sounds, smells, colors, plants, animals, and the weather. May include use of tools.

OUTDOOR LIFE SKILLS**Historical Skills & Games**

Learn traditional American Indian and Voyageur skills and games passed along as fun ways to sharpen the senses, stay strong, and build community.

Snowshoeing and Kicksledding

Discover the history and fun of these modes of winter travel. Develop a lifelong skill that will keep you active in winter. Along the way, identify animal tracks. American Indian games can also be added.

Wilderness Skills

Develop skills for a survival situation. Prioritize needs, build a fire, and design and construct a debris or snow shelter as a team.

NATURE CENTER SCHOOL FEES: Cost is \$4.80/per participant, program lengths are 1.5 to 2 hours in length. The minimum fee is \$72.00, which is based on 15 participants.

OUTREACH: Many programs can also be delivered at your site. Outreach fees vary, please call to discuss program options and cost.

CHAPERONES: Adults are expected at a 1:10 ratio. They will not be charged, but are expected to be involved with class activities, to facilitate student involvement, and to control behavior.

ACCESSIBILITY: Richardson is an accessible site and programs can be adapted for all abilities.

HYLAND LAKE CREATIVE PLAY AREA: The Play Area in the Hyland Recreation Area is a five-minute drive from Richardson Nature Center. There is no extra fee if booked in conjunction with a naturalist program. Users are limited in number per day, thus prior reservations must be made with your booking.

FINANCIAL AID: Discounts are available and equal your percentage of free and reduced lunch students (minimum 30% to maximum 60%). Please inquire for an application.

PAYMENTS: Are required in advance to confirm program reservations. If you can't pay in advance, ask the secretary to note this in your booking. Full payment will be due on the day of your visit.

CANCELLATION: If your group cancels prior to 60 days before your scheduled visit, 50% of the payment is refundable. The payment is non-refundable if your group cancels within 60 days of the program date. You may make group size changes up to 30 days in advance of the program date.

WEATHER: Dress for the weather; you will be going outside unless there is pouring rain or severe weather approaching. Moderate rain, snow, or normal winter temperatures do not constitute extreme conditions. Many programs can also be shifted to indoor classrooms. If wind chills are below school outdoor-recess standards, we can try to reschedule your trip.

THE SITE: Located within the 1,000-acre Hyland Lake Park Reserve, Richardson Nature Center is a gateway to stunning natural beauty just minutes from the city. Inside, colorful clay mosaics and sculptures by artist Chris Tully engage visitors with the natural world. Visitors can also meet Richardson's resident live raptors, reptiles, and amphibians up close. Upstairs, floor-to-ceiling windows offer views of backyard wildlife and an active bee hive. The trails, docks, and Nature Exploration Area allow you to take in the abundant wildlife of the ponds, prairies, and forested areas found along the nature center's three miles of trails.

For reservations or questions, call 763.694.7676.

Nature Center Hours:
Monday-Saturday 9 AM-5:00 PM
Sunday 12-5:00 PM

**Richardson Nature Center
8737 East Bush Lake Road
Bloomington, MN 55438**

ThreeRiversParks.org