

Outdoor Education Programs: Natural History

Programs typically last 1.5 to 2 hours with length adapted to your needs.

Adults assisting/chaperoning children are not charged as participants.

Activities are done any time of year and modified to any ages, except as noted.

Those with asterisks (*) can have more than one class at the same time. For example, we can have 3 Birds classes running simultaneously.

Waivers are required for some classes. Call 763! 694! 7856 to set your schedule.

Our curriculum supports certain Minnesota K-12 Academic Standards; call or email for a list.

The BOLC curriculum is focused on 3rd grade and older students.

Natural History

► AMPHIBIANS VS. REPTILES*

Actively learn the unique characteristics and differences between amphibians and reptiles. Hike with a net to catch some Baker Park amphibians for an up-close look.

► ANIMAL TRACKING* (max: 20; ages all, best in winter)

Discover the more secretive animals of Baker Park and their lifestyles by studying the tracks and signs they leave behind. Size, daily routines and specific animal habitat requirements can be determined by hands-on animal tracking and exploration.

► BIRDS* (max: 20; ages all)

Actively discover the beauty and ecology of birds and the many strategies they use to survive. In addition to a hike with binoculars, this program may include: a stuffed owl mount, bird skulls, a hands-on "bird beaks" adaptation activity, and/or a visit to Chickadee Landing.

► FORESTS: TREE ID* (max: 20; ages 10+)

Discover the unique natural history of the Baker Park forest during a hands-on hike. Learn about the inner workings of a tree and use a dichotomous key to identify local trees.

► FLIGHT* (max: 20; ages 10+)

Explore Bernoulli's Principle and Newton's 3rd law to explain why objects can fly. Through hands on experiments students will be introduced to three types of flight.

► INSECTS* (April-October; max: 20; ages all)

Catch the buzz on Earth's most abundant creatures. Use sweep nets, collecting jars and magnifying lenses to catch and examine insects. Explore the field and forest to get close-up to insects. Compare and contrast insects with spiders (arachnids).

► KEEPING WARM* (November-March; max: 20; ages 10+)

Animals active in winter have a huge problem; keeping warm. Discover the four ways animals lose heat (conduction, convection, radiation, and evaporation). Brainstorm what animals do to keep warm, how insulation works and why it is so important. Experiment with different insulations on baby food jar "animals".

► MINNESOTA MAMMALS* (max:20; ages 6+)

Fur, skulls and other natural objects are used to help examine Minnesota's many mammals and their extraordinary adaptations to survive our extreme climate. Become "critter detectives" and discover various animal signs (tracks, nests, scat, etc.) during a hike.

► NATURALIST HIKE* (max: 20; ages all)

Take a guided hike through the woods and meadows of Baker Park. See what wildlife or animal signs you encounter.

► NATURE ADAPTS TO WINTER*

(December-March; max: 20; ages 8+) Learn all about the many fascinating ways plants and animals adapt to Minnesota winters. Which animals migrate? Which hibernate? Which ones "tough it out"? What tracks can be found around Baker Park? This program can be done on snowshoes if conditions allow.

► PLANTS* (April-October; max: 20; ages 6+)

The food-factory of our planet! Study the world of plants by focusing on parts, uses, needs and ecology. Get your hands dirty by pulling some garlic mustard (a non-native plant) to examine roots, stem and leaves up close. Time is also spent discussing seed dispersal and plant adaptations.

► PREDATOR-PREY GAME (min: 20; max: unlimited; ages 10+)

This large group game of ultimate survival is a fun and exciting way for students to learn of the basic needs for survival and the dynamics of a food chain by assuming the roles of various animals. Survival depends upon understanding the predator-prey relationship and overcoming limiting factors within the environment.



► POND STUDY* (April-October; max: 20; ages 6+)

Use nets to scoop critters (such as tadpoles, insects, snails and leeches) from the pond. Specimens are observed by catch and release. Concepts frequently discussed are pond ecology, metamorphosis, and the water cycle.

Outdoor Education Programs: Outdoor Life Skills

- ▶ **ARCHERY** *(March-November; max: 20; ages 8+)
Learn the basics of shooting a bow, elements of safety, and styles of equipment. Students have an opportunity to shoot compound bows at our archery range. All equipment provided (fits all sizes). No experience necessary. Most staff are NASP-certified instructors. *Waiver required.*



- ▶ **CANOEING** *(May-early October; max 20; ages 11+)
When in Minnesota – paddle! We put on life jackets, review the basics of paddling and water safety, then get on the water near the BOLC. Available to paddlers at least 11 years old. *Waiver required.*
- ▶ **COMPASS BASICS** *(max: 25; ages 8+)
Start with how and why compasses work, and practice using them until everyone gets the hang of it. Then it's off to the compass course where teams use their skills to locate special posts in the forest!
- ▶ **ORIENTEERING** (max: 25; ages 11+)
Learn how and why compasses work and how to read a topographical map. Put the map and compass skills together to navigate your way through our orienteering course. This requires 2 hours of time.
- ▶ **DIGITAL NATURE PHOTOGRAPHY** (max: 20; ages 8+)
Discover the fun of nature photography! After a lesson on how to use our digital cameras, head into the woods and meadows of Baker Park looking for the perfect photo opportunity. Print, edit, and frame a photo to take home.
- ▶ **KNOTS AND LASHING***(April-November; max 20; ages 10+)
Work in small groups to practice some basic knots and lashing. Head to the woods to use your imagination and new rope skills to build objects such as swings, ladders or your small groups own creative ideas.
- ▶ **FIRE MASTER!***(max: 20; ages 10+)
Walk the long path of fire history and technique by beginning with bow drills, progressing to flint and steel, and finally to matches and batteries. Discover which fire design is best for signals, dutch-oven cooking and campfire stories!

- ▶ **INTRO TO GPS** (max: 40; ages 9+)
Discover the fun and power of Global Positioning System (G.P.S.) technology! Through hands-on instruction learn to operate the device and perform basic G.P.S. functions. Use the G.P.S. to find waypoints throughout the park.
- ▶ **MAPLE SYRUPING***(late February/March; max: 20; ages all)
Activity stations teach about the process of making of maple syrup through firsthand experience. 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!
- ▶ **SNOWSHOEING***(snow-dependent; max: 25; ages 4+)
A great way to explore nature in winter! A quick introduction to the history of snowshoes and how they work prepares us for the hike. We stop few times for some nature interpretation (and a breather!). No experience required. Must select a back-up program.
- ▶ **CROSS-COUNTY SKIING***(snow-dependent; max: 20; ages 11+)
Learn the basics of Nordic skiing: falling and standing, glide and weight transfer. Then head out with your instructor on the trails of Baker Park. Extra \$5/wk day and \$7/wknd for equipment rental. Activity takes place 1.5 miles from the Learning Center at the Baker Ski Chalet. Group must provide their own transportation to and from the ski area. *Waiver required.*
- ▶ **SURVIVAL CHALLENGE***(max: 25; ages 8+)
An active, fun and challenging way to learn about survival skills. We review such needs as shelter, water, warmth, food, a positive attitude, and signaling. Then, your LOST! What items are most valuable to have? Can your group build a fire? Work together and survive?



Outdoor Education Programs

Cultural History

- ▶ **PREHISTORIC SKILLS*** (max: 20; ages 7+) A hands-on experience of various aspects of prehistoric life in North America/Minnesota (before written history) skills: bow drills (fire by friction), atlatls (prehistoric spear-type hunting weapon), active games, and Minnesota history. *Waiver required for atlatls.*
- ▶ **VOYAGEUR LIFE!*** (max 20; ages 8+) Bonjour! In this class, students are given the opportunity to experience everyday life in an imaginary North West Company brigade in the year 1793. As recruits they will learn some skills of the colorful voyageur such as flint and steel fire making and playing voyageur games. A rowdy good time delivered in a living history format. *Waiver required for hatchet throwing.*

Group Interaction/Team Building

- ▶ **CLIMBING WALL** (April-October; max 20/hour) Attempt to scale our 25-foot wall and sound the buzzer at the top! All equipment and trained instructors provided. Must be over 40 lbs. and less than 240 lbs. to climb. *Waiver required*
- ▶ **TEAM BUILDING*** (max: 15; ages 8+) A progression from fun games to initiative challenges designed for problem solving and collaboration. We typically move through multiple challenges as participants advance and build upon previous successes. Examples include: Group Juggle, Toxic Waste, River Crossing, Buddy ropes and Pipeline. Concepts include: communication, tolerance, leadership, listening, supporting one another, etc.

Evening/Indoor Activities

- ▶ **CAMPFIRE: SONGS, STORIES, SKITS** (max: unlimited) TOTAL FEE: \$50. Gather around the fire for a Baker staffed campfire with camp songs, a story or two, and perhaps a skit. Outdoors if weather permits. If making s'mores, please make AFTER, not during the campfire. (Groups must bring their own s'mores)
- ▶ **INDOOR TEAMBUILDING** (max: 40; ages 10+) A progression from fun games to initiative challenges designed for problem solving and collaboration. We typically move through multiple challenges as participants advance and build upon previous successes. Examples include Lego Towers, River Crossing, Bridge Building, etc.
- ▶ **NIGHT G.P.S.** (max: 60; ages 8+ with adult) Discover the fun and power of Global Positioning System (G.P.S.) technology! Through hands-on instruction learn to operate the device and perform basic G.P.S. functions. Then head out AT NIGHT to find hidden geocaches. Flashlights and glow tacks help you uncover the mystery hidden in the woods.
- ▶ **NIGHT HIKE*** (max: 20; ages 7+) Explore the natural world at night. Hikes designed to be quiet, slow and without flashlights. Topics may include stargazing, nocturnal animals, night sounds, games, myths and legends, and the science of the human eye.



- ▶ **OWLS** (max: 60; ages 5+) View a stuffed owl and learn about the owls of Baker Park. Learn about nocturnal animals, predators, adaptations and food webs. Then, dissect a sterilized owl pellet, and see what the owls have been eating!
- ▶ **SKULLS** (max: 40; ages 11+) Discover the identifying characteristics of skulls. Use a dichotomous key at skull stations to identify some of the animals that live in Baker Park. Learn about unique animal adaptations.

Design a Program

- ▶ **NATURALIST DESIGN A PROGRAM** Not finding a program that fits your group's needs? Have a specific nature/outdoor program in mind? Let our professional staff develop a program to fit your group's needs. Please give us at least one month. Examples: homeschool curriculum, outdoor cooking, wildlife management, fishing, astronomy, etc.