

## **Ney Nature Center Field Trip Options**

**Pond Study (Macro Invertebrates):** Search for and identify critters in Frog Pond using various tools and charts. Based on which indicator species are found, students will be able to determine the health of the Frog Pond ecosystem.

**Bluebirds:** Learn about conservation issues related to bluebirds in Minnesota and assemble wooden bluebird houses for an added fee. Students will also embark on a hike to search for Eastern Bluebirds and monitor the existing birdhouses at the Nature Center.

**Homestead Tours:** Learn about the Ney Family and visit their historic homestead from the early 1800s. Students will receive an overview of historical knowledge and will be able to tour several restored structures.

**Orienteering:** Students will be given the opportunity to master the skills of using a map and compass. After receiving a tutorial based on topographic map-reading, compass-use, and measuring distance, teams will navigate to several key points on the Nature Center property.

**Tree Planting:** Help save the planet by planting trees at the Nature Center. Learn about tree anatomy and basic identification.

**Wildlife Investigation Hike:** Explore the Nature Center Trails through a series of fun activities. Students act as detectives as they search for signs of wildlife and learn about local ecosystems.

**Nature Journaling and Phenology:** Focus on seasonal changes at the Nature Center including making observations and recording natural phenomenon in a homemade journal.

**Live Animal Meet and Greet:** Meet a couple of our live animal ambassadors up close! Learn about their habitat, eating habits, and other interesting facts. Pairs well with Nature Art.

**Nature Art:** Students will have the opportunity to create one or more craft projects to take home that will focus on what is currently taking place in the natural world. Pairs well with the Live Animal Meet and Greet.

**Geocaching:** Embark on a technology-based scavenger hunt using handheld GPS units. Students will search for hidden containers with their classmates while enjoying time spent in the great outdoors.

**Snowshoeing:** Discover topics related to Ice Age history and animal adaptations while enjoying a guided snowshoe hike on the Nature Center Trails.

**Night Hike:** Explore the park after dark! Hike without flashlights and learn about nocturnal animals, wildlife adaptations, and the night sky.

**Bird ID & Conservation:** Explore different biomes at the Nature Center while searching for various bird species based on appearance, sound, habitat, and behavior. Students will also discover the major issues surrounding bird conservation and general birding practices.

**Mammals:** Discover the different characteristics and traits of our warm-blooded friends of the forest. Embark on a hike to search for clues of nearby mammals and their habitats.

**Bats:** Explore many myths surrounding bats and learn about their importance in the animal kingdom including pollination and insect control.

**Survival Skills:** Students learn about what it takes to survive in the woods and will practice the life-saving skills of shelter construction and fire building in a controlled environment.

**Maple Syrup:** Students learn about tree anatomy, photosynthesis, and the maple syruping process. Students will tap a tree, collect sap, taste a sample, and see the evaporation process.

**Astronomy:** Enjoy the night sky while learning about the planets, constellations, the sun, and moon. View the moon, possible planets, and constellation through a telescope.

**Insects:** Students learn to classify what is an insect and what is not. Students then embark into the forest and prairie ecosystems to see if they can collect insect samples with nets and jars. After further examination all insects will be returned to their homes.

**Winter Ecology:** Students learn different strategies that organisms use to survive winter in Minnesota. Students then embark outside for a fun experiment to see if they can keep a thermometer from dropping below freezing by finding a warm place to hide.

**Team-building:** Classes will work to accomplish fun, instructor-led tasks to develop skills in communication, cooperation, and leadership.

**Predator & Prey Relationships:** Students learn about food chains, food webs, and the difference between a producer, consumer, carnivore, omnivore, and an herbivore. The lesson concludes with a fun, outdoor game where students learn about predator and prey relationships as well as limiting factors of an ecosystem.

**Cross Country Skiing:** Students will learn about cross-country skiing equipment and techniques and will be led by an instructor on a beginner-rated tour. Designed for a single class of middle school or high school students.

**Renewable Energy:** Explore the different ways that renewable energy is harnessed and utilized in Minnesota. Conduct an experiment to see how much electricity each class can produce with demonstration-sized wind turbines and solar panels.

**Owls:** Discover the adaptations that have allowed owls to become some of the fiercest nocturnal hunters. Students will learn about these adaptations in a classroom setting before heading outside for a game and simulation. The lesson concludes with an optional owl pellet dissection.

**Animal Tracks:** Investigate tracks and other animal signs left behind by wildlife at the Nature Center. Should conditions permit, students can make a plaster mold of an animal track to take home with them.

**Tree ID:** Identify native trees at the Nature Center based on characteristics such as leaves or needles, seeds, branching, bark appearance, and general shape.

**Frogs and Toads:** Explore the biology of various amphibians including frogs and toads. Learn about their life cycle, environmental importance, and variance among species.

**Prairie Ecology:** Venture through the prairie biome at the Nature Center to learn about the different plants and animals that call this ecosystem their home. Search for critters and identify grasses that can grow to be six feet tall!

**Invasive Species:** Determine what makes a species “invasive” and learn about plants and animals that fall into this category. Find out what people can do to help control invasive species and participate in an interactive game.

**Climate Change:** Learn about the human impacts on our planet and the implications of global warming. Determine which attitudes and behaviors need to change in order to prevent further harm to our planet and its inhabitants.

**Wetlands:** Explore the benefits of different types of wetlands including swamps, marshes, and bogs. Tour Frog Pond and investigate first-hand the functions of a wetland ecosystem.

**Weather:** Discover the job of a meteorologist while conducting experiments and taking readings. Subtopics include air pressure, clouds, and microclimates.

**Pioneering:** Learn about homesteading, subsistence farming, and biome progressions through heritage crafts and a historic tour.

**Geology:** Explore the gravel pit while learning about the rock cycle and glaciation. Students will also use a dichotomous key to identify various types of rocks.

**Wildflowers:** Determine the different parts of a flower and their classifications before heading out to search for wildflowers on the Nature Center Trails. Woodland flowers are easiest to find in May whereas August and September are best for prairie flowers.

**Composting:** Discover the importance of reducing waste while further understanding soil science and decomposition.

**Soils:** Discuss the difference between soil and dirt, examine soil horizons, and observe soil filtering functions.

**Monarchs:** Learn about the life cycle and biological importance of monarch butterflies. Includes a monarch tagging demonstration in August.

**Bees:** Includes in-depth information on honeybee socialization, bee keeping, and honey production.

**Pollinators:** Define and identify various pollinators and learn about their roles and importance in our ecosystems.

**Spiders:** Determine the difference between a spider, an insect, and an arachnid based on animal traits and characteristics. Hike to search for different species on the Nature Center Trails.

**Archery:** Learn how to shoot safely with an instructor while competing in fun games. Designed for beginner to intermediate archers.