

## WILDLIFE

### **A Bug's Life** (K-5, fall & spring only)

From zooming through the air to crawling through the grass, insects are the most numerous group of animals on earth. Explore the life cycles of insects, how they are classified by scientists, and their role within an ecosystem.

### **Animal Habitats** (K-3 only)

Just like you, animals need a place to eat, drink, sleep and live. Investigate numerous habitats through active discovery in the woods, role playing and hands-on activities.

### **Animal Signs** (grades 3 and up)

Animal signs are a picture; a moment in an animal's day. Discover the basics of tracking and investigate clues to solve a variety of animal sign mysteries.

### **Bird Basics and Beyond**

All birds have some basic features in common, but it is their unique design and features that allows them to survive in every habitat on earth. Hike on our birding trail as you learn about bird characteristics, biology, and simple field identification techniques.

### **Creek Creatures** (fall & spring only)

The survival of a whole world of under-water life depends on how we care for our lakes, rivers and streams. Collect and identify macroinvertebrates in order to better understand the importance of water quality in this hands-on class.

### **Creepy Crawly Creatures** (fall & spring only)

Because they breathe and drink through their skin, the presence of MN amphibians can give us clues about the health of our environment. Become herpetologists in this hands-on class! Experience the creepy, crawly, and often misunderstood world of reptiles and amphibians.

### **Ecosystem Engineers** (grades K - 6, fall & spring)

Just like human engineers build bridges or skyscrapers, beavers build with trees to radically change their environment and create their home. Engineer your own beaver dam and lodge in this class and explore the physical adaptations of these smart and savvy mammals.

### **Fish Function** (grades 4 and up; fall & spring only)

Eat or be eaten; your adaptations as a fish make all the difference in your survival. Explore how Minnesota native fish function and are functional through interactive observation, discussion, and activities. We will go fishing on Grindstone Lake at the end of class! *Participants over age 16 must have a valid MN Fishing License.*

### **Predator/Prey** (grades 4 and up)

For an animal, life and death hinges on their instincts and abilities. Experience life as a hunter, or the hunted, through a high-energy game and become acutely aware of the adaptations and strategies that are necessary for animals to survive in the wild.

### **Wolves of the North Woods**

Wolves live a fine line between life and death; their survival is determined by their abilities and behaviors. Step into a wolf biologist's role to learn more about wolf pack structure, behavior and adaptations using scientific tools and methods, such as radio telemetry.

## ECOLOGY

### **Forests**

- **Forest Flow** (grades K-5) - Through the death of a tree in the forest, resources are now available for new life to begin. Explore the stages of decomposition. Then, become forest cycle Detective and search for evidence of our decomposer suspects: fungi, bacteria, and invertebrates.
- **Forest Stories** (grades 6 and up) - Every forest has a story, and that story can shape how to care for and manage a forest ecosystem. From a forest manager's perspective, complete a survey of our plant ecosystem, assess the biodiversity and the natural history of our forest, and make the tough decisions that are made to manage it effectively.
- **Maple Syruping** (March & early April only) - For thousands of years, spring warmth has resulted in a sweet treat from the sap of maple trees. Visit our sugar bush, tap a tree, collect sap, and taste pure maple syrup.

### **Limnology** (grades 5 and up)

Study the ageing process of lakes by examining the ecosystems of Grindstone Lake and Windmill Creek. Use visual observation and chemical testing data to determine how "old" Grindstone Lake is and what we can do to keep it young.

## Renewable Energy S.T.E.M. Class Options

- *Clean, Green Energy Solutions (Grades 4 and up)* – Renewable energy sources are becoming crucial to our survival, but which sources are best? Why is it so challenging to make the switch to green energy? Explore the different types of renewable energy systems on ACNW's property before designing your own clean, green building!
- *Wind Power (grades 4-8)* - From the pumping of water, to the milling of grain, to the generation of electricity, the design of windmills has changed over hundreds of years. Analyze windmill blade design through observation and experimentation, and then engineer a functioning windmill.

## STEWARDSHIP

We have stewardship and career path discovery in the following areas for high school students. Please contact us to learn more.

- *Adventure Education and Maintenance*
- *Culinary Arts*
- *Gardening and Grounds Maintenance*
- *Wildlife Care and Husbandry*

## CULTURE & HISTORY

### Nature Journaling

What does it mean to really see an object in nature? Train your eye to notice things differently as you write and share your observations of the natural world. Let out your inner poet as you explore the woods and prairies of the Audubon Center.

### Ojibwe Hike

Ojibwe culture and traditions are a rich part of Minnesota's history. Through games, stories, and sensory experiences, students will learn about traditional Ojibwe practices and valuable uses of native Minnesota tree.

### Quillwork (grades 5 and up)

Ojibwe people traditionally use porcupine quills and birch bark to create beautiful art. Create and take home your own birch medallion decorated with real porcupine quills.

### Twining & Shell Ornaments (grades 5 and up)

When we need twine or rope we go to the store. Before stores existed, where did Ojibwe people get their twine? Make a piece of twine from Basswood bark and fashion a mussel shell to decorate it.

## ADVENTURE EDUCATION

### Archery (grades 4 & up; fall & spring only)

Over the last thousand years, the purpose of Archery and the equipment has gradually changed and been modernized for hunting and sport. Experience the ancient art of atlatl throwing, and then sharpen your skills at the archery range.

### Canoeing (grades 9 & up; requires 2 adults; fall & spring only)

The art of paddling is more than sticking a paddle in the water. Discover the art of paddling using the forward stroke, c-stroke and j-stroke. Work together in the bow and stern to practice your new skills on beautiful Grindstone Lake.

### Climbing Wall

Whether climbing a real rock face or an indoor wall, there is a challenge for everyone. Experience bouldering and top rope climbing on our indoor rock wall! Teamwork and goal-setting will be emphasized during this challenging sport.

### Cross Country Skiing (grades 4 & up; requires 2 adults; winter only)

Different cultures have responded in different ways to the necessity of traveling in deep snow. Experience the rich history of this 5,000 year old activity on quiet, snow-covered trails.

### High Ropes Course (grades 5 & up; requires 3 adults)

The world looks different from a bird's eye view; challenge yourself to climb high and to be brave as you soar to new heights. ACNW's high ropes course also boasts a fun zip-line ride at the end of the course.

### Orienteering (grades 4 & up)

With only two tools you can navigate an unfamiliar environment. Use a compass and your own two feet to navigate ACNW's orienteering course using techniques like pacing, leapfrogging, and land-marking.

### Survivor

You can survive three weeks without food, three days without water, three hours without heat, but the first key to survival happens within the first three seconds. Build a shelter and a fire with a team, and recognize that teamwork is also an important factor in survival.

### Teambuilding

- *Total Team* – Just as you can't seesaw by yourself, there are many challenges in life that will be easier and more fun with a team. Solve problems and overcome obstacles as a team by striving for improved caring, communication, and cooperation.
- *Low Ropes (grades 4 & up)* – Off-the-ground elements provide an extra set of challenges in this teambuilding class.

## NATURALIST EVENING PROGRAMS

**Leap, Creep, Slither** (*grades K-5, not recommended if taking Creepy, Crawly Creatures*)  
From water, to land, to trees, reptiles and amphibians have special abilities that help them survive.

**The Hinckley Fire - Human Error and Heroism**  
Learn about the human and natural causes of arguably the worst wildfire in the history of North America. Discussion topics include sustainable logging practices, the role of fire in the Minnesota forest ecosystem, and human resilience under pressure.

### Minnesota Wildlife

Meet three native animals of Minnesota and explore their habitats, diet, and adaptations for survival.

### North Woods Niches

Different species have specific adaptations to their environment. Move through the levels of the forest, starting from the ground up!

### Raptors

- *By Family ...* Meet live birds of prey from three different families, while learning about the adaptations of these birds that make them successful hunters and fliers. (Special *By Family* programs for K-2<sup>nd</sup> graders available on request.)
- *Of Raptors & Men ...* What is falconry? When and where did it start? Learn the answers to all these questions and more while meeting live birds of prey.
- *Endangered ...* Meet our live raptors and learn how to classify species as well as how to help prevent animals from going extinct.

### Stargazing Stories

Throughout history, cultures from around the world have looked at the same stars to make meaning of their lives. Learn about constellations and the myths and legends behind them.

### Voyageur Rendezvous

 (*grades K-8 only*)

Meet “live” voyageurs who share stories of their lives during the fur trade era. Students will create skits and dramas to make history come alive.

### Wolves in Our World

 (*grades 3 & up*)

Today and throughout history, wolves have been viewed as a threat to humans; but is this really the case? Learn about and debate the controversial issues around wolves and the human world.

**Trip Tip:** Many of our classes can be adapted in both content and standards to meet your specific learning objectives and individual student needs.

More detailed descriptions and academic standards for each class can be found on our website.

If you have questions about our curriculum, please contact our education team. We will work with you to find the best fit for your students.

## SELF-LED EVENING ACTIVITIES

### Campfire

Gather around one of three fire pits on our main campus. This is a perfect end-of-trip experience for your group to appreciate the beauty of the night at the Audubon Center. If you desire s'mores supplies, please indicate so on your Snack Request Form or feel free to bring your own.

### Nature Scavenger Hunt

Become acquainted with the Audubon Center of the North Woods through a list of activities and challenges. These will test the group's communication skills, cooperation, mathematical skills, and problem solving.

### Night Hike

See the Audubon Center in a whole new light – with no lights! Enjoy the evening skies with your group by utilizing our trails to open up students' curiosity and maybe get over some fears. Ask your liaison or any staff member for their favorite trail to hike at night.

### Invent Your Own!

The possibilities are endless... Please let us know if we can help you brainstorm any other activities.