School Program Guide

Hands-On Environmental Science Through Fishing & Birding

2026–2027

All programs are designed for up to 30 students and can be adapted to support your grade level, curriculum, and learning goals.

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Fishing Classroom Lessons

Minnesota Fish ID

Duration: 1 Hour

Overview
Learn about Minnesota fish species while researching natural history, creating scientific illustrations, and presenting their findings.

Students Will Learn

- Fish biology
- Adaptation
- Observation
- Scientific communication

How Fish See Color: Paint Your Own Lure

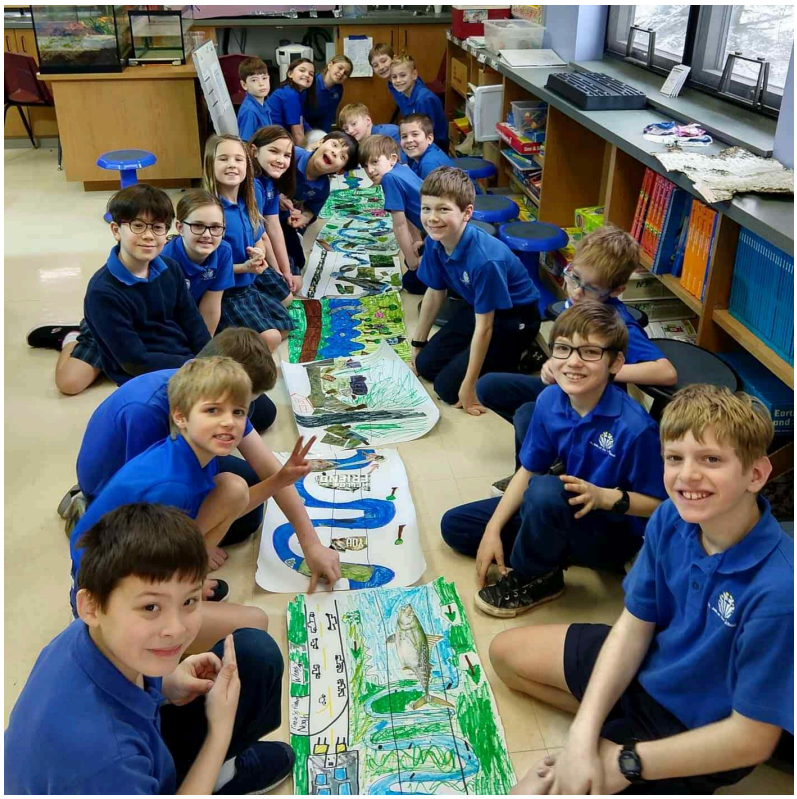
Duration: 1 Hour

Overview
Students discover how light behaves underwater and how fish perceive color. They apply what they've learned by painting their own fishing lure to take home.

Students Will Learn

- Light and color underwater
- Fish vision and behavior
- Observation and experimentation
- Basic physics concepts

Where Fish Live: Design Your Own Lake



Duration: 1 Hour

Overview
Students investigate how habitat influences where fish live by learning to read bathymetric (depth contour) maps. They then design their own lake using fish habitat principles.

Students Will Learn

- Fish habitat
- Lake structure
- Reading depth contour maps
- Habitat planning and problem solving

Who wants to be a Gill-ionaire?

Duration: 1 Hour

Overview
Students compete in a fast-paced team trivia game while learning fascinating facts about Minnesota fish, their biology, and aquatic ecosystems.

Students Will Learn

- Minnesota fish species
- Fish biology
- Aquatic ecosystems
- Teamwork and critical thinking

Fishing Basics: Rigging, Knots & Casting

Duration: 1 Hour

Overview
Students learn the fundamentals of fishing by practicing essential knots, setting up fishing equipment, and, when space allows, developing casting skills through fun games and activities.

Students Will Learn
- Fishing equipment
- Knot tying
- Basic rigging
- Casting fundamentals

Additional Classroom Lessons:

- Live Aquatic Macroinvertebrate Identification
- Invasive, Native & Introduced Species
- Introduction to Fly Tying

Fishing Field Experiences

Fishing Field Experiences

Duration: 1.5–2 hours

Overview
Students learn the fundamentals of fishing while exploring Minnesota's aquatic ecosystems firsthand. Guided by experienced instructors, they'll practice safe fishing techniques, use rods and reels, and discover how healthy watersheds support fish and wildlife.

Whether fishing from a pier, riverbank, or on the ice, every field experience is designed to connect classroom science with real-world observation and exploration.

Students Will Learn

- Safe and responsible fishing practices
- Basic fishing techniques and equipment
- Fish habitat and aquatic ecosystems
- Watershed health and conservation
- Fish identification and adaptations

Available Experiences

- Pier Fishing
- Riverbank Fishing
- Ice Fishing
- Fly Fishing (if appropriate for the audience)

Birding Classroom Lessons

Introduction to Birds

Duration: 1 hour

Overview
Students explore what makes birds unique by learning about their anatomy, behavior, taxonomy, and natural history. Through interactive activities and observation, they'll discover the important role birds play in healthy ecosystems.

Students Will Learn
- Bird anatomy and adaptations
- Bird behavior
- Taxonomy and classification
- The ecological role of birds

Beaks: Tools for Survival

Duration: 1 hour

Overview
Students investigate how different beak shapes help birds find food, survive in different environments, and compete for resources. Hands-on activities demonstrate how specialized adaptations influence survival.

Students Will Learn
- Bird adaptations
- Natural selection
- Feeding strategies
- Competition within ecosystems

Feathers: More Than Flight

Duration: 1 hour

Overview
Students explore the structure and function of feathers while learning how they support flight, insulation, camouflage, communication, and survival.

Students Will Learn
- Feather structure

- Flight adaptations
- Camouflage and communication
- Survival strategies

Eggs: Built for Survival

Duration: 1 hour

Overview
Students discover how bird eggs vary in shape, size, and color to improve survival. They'll examine how these adaptations protect developing chicks and support different nesting strategies.

Students Will Learn
- Egg structure
- Nesting adaptations
- Camouflage
- Reproductive strategies

Migration: Minnesota's Birds on the Move

Duration: 1 hour

Overview
Students learn why birds migrate, the incredible journeys they make each year, and why Minnesota plays an important role along one of North America's major migratory flyways.

Students Will Learn
- Bird migration
- Seasonal behavior
- Habitat requirements
- Conservation challenges

Bird Identification

Duration: 1 hour

Overview
Students learn how scientists and birders identify birds by observing shape, size, color, behavior, and habitat. Using binoculars, field guides, and nature journals, they'll practice identifying birds both indoors and outdoors around the school.

Students Will Learn

- Bird identification techniques
- Observation skills
- Using binoculars and field guides
- Scientific journaling

Additional Lesson Topics

- Building Bird Houses
- Bird Nests
- Raptors of Minnesota
- Bird Conservation & Natural History
- Citizen Science with Birding Apps

Birding Field Experiences

Birding Field Experiences

Duration: 1.5–2 hours

Overview
Students explore local parks and natural areas while developing the skills scientists use to observe and identify birds. Guided by experienced instructors, they'll use binoculars, field guides, and nature journals to investigate bird behavior, habitats, and the important role birds play in healthy ecosystems.

Whether observing birds on school grounds or at a nearby natural area, students gain hands-on experience connecting classroom science to the world around them.

Students Will Learn

- Bird identification techniques
- Observation and scientific journaling
- Bird habitats and behavior
- Ecosystem relationships
- Conservation and environmental stewardship

What's Included

- Professional instructors
- Binoculars and field guides
- Nature journaling materials
- Hands-on instruction

Schools provide transportation for off-site field experiences.

What Educators Are Saying

Engaging Students Through Hands-On Science

“Dan and Evan from Fishing For All bring the fun with their great ideas and awesome energy in the classroom. Their activities help our students better understand human impact on the environment, which aligns with what we are learning in our grade level standards. They always bring a positive vibe that gets everyone excited to jump in on the activity.”

Mandie Mishler
6th Grade Teacher
Pine City Elementary School

A Memorable Outdoor Learning Experience

"Fishing For All provided an outstanding outdoor educational experience for our students at Cambridge Middle School. Dan and Evan were able to offer 3 classroom instructional lessons on fishing leading up to the culminating event of a real ice fishing trip to Lake Fannie just minutes from our school. Our students enjoyed learning about fishing and I am sure this will be a memory that will last a lifetime.

Ryan O’Donovan
School Counselor
Cambridge Middle School

Students Looked Forward to Every Visit

“Dan and Evan engaged all my biology students with fun activities that taught everyone detailed lessons about Minnesota fishes, biology, ecology and fishing. All my students learned more than expected and looked forward to each event with Fishing For All. It is a valuable experience.”

Kathy Vadnais
Science Teacher
Centennial Area Learning Center

Frequently Asked Questions

Do students need any fishing or birding experience?
No. Our programs are designed for all experience levels, from complete beginners to students with outdoor experience.

Who provides the equipment?
Fishing For All provides all fishing gear, birding equipment, lesson materials, and supplies needed for each program.

Can programs be customized?
Absolutely. We work with teachers to tailor programs to grade level, curriculum, learning goals, and available time.

How many students can participate?
Programs are designed for up to 30 students per session. Larger groups can often be accommodated by scheduling multiple sessions.

What should students bring?
For classroom programs, students only need to come ready to learn. For outdoor field experiences, we'll provide recommendations based on the weather and activity.

Do schools need to provide transportation?
Transportation is only needed for off-site field experiences. Classroom lessons take place at your school.

What grade levels do you serve?
Our programs can be adapted for elementary, middle, and high school students.

Where do field trips take place?
We work with schools to select safe, accessible fishing and birding locations near your community.

Ready to Start Planning?

Every school is different, and we'd love to help build a program that fits your students and curriculum.

- **Email:** fishing4all.llc@gmail.com
- **Phone:** (612) 293-8058
- **Website:** fishing-for-all.com/school-programs