We offer a variety of programs for grades 6–12 that meet MN state standards in science, social studies, and physical education. Topics range from ecosystems and water quality to teamwork and outdoor skills, all of which inspire students to learn more about the natural world.

Classroom courses, half-day programs, and online resources can all be customized to meet your classroom’s needs. These programs are best held outdoors in the schoolyard, but can also be held in the classroom, the gymnasium, or in a local park near the school.

To schedule your program, please contact Education Director Alison Nyenhuis at alison@friends-bwca.org or fill out this form. Visit friends-bwca.org/outdoor-education for more information.
**CLASSROOM COURSES**

30–90 minutes | Designed to fit into a single class period. At-school, schoolyard, and virtual options are available. Sign up and we’ll tailor our courses to meet your school’s schedule.

**PRE-VISIT LESSON | GETTING YOUR FEET WET: AN INTRODUCTION TO THE BOUNDARY WATERS**

Grades 6–12 | At-school, virtual presentation, or online unit | 30–90 minutes
Best location: indoor or virtual

Students will learn about the size, location, and ecosystem of the Boundary Waters through an interactive map, where they will go through a “day in the life” traveling in the Boundary Waters. They’ll explore some of the features that make the Boundary Waters unique, such as portaging (carrying) canoes!

Students will leave with an understanding of the scope of the BWCA, what makes a wilderness area unique, and even try out portaging a canoe!

**Note:** This pre-visit lesson is required before a school visit, and is teacher-led through an online unit. When requested, this can also be done as a virtual presentation.
ANIMAL ADAPTATIONS IN THE BWCA: SKULL INVESTIGATION
Grades 6–12 | At-school or online unit | 30–90 min.

The BWCA is home to many organisms that all have adaptations suited to their environment. Students will make observations of adaptations in our animal skull investigation and use these to create claims on their mystery animal artifact. We’ll expand on their investigation by creating an ecosystem web containing the different species we observed.

MAP AND COMPASS IN THE BWCA
Grades 6–12 | At-school | 30–90 min.

The BWCA can be a confusing mix of water, shoreline, islands, and trails — it can be hard to keep it all straight! Students will learn about the various features of a map and how to interpret landscape features around them. Using topography lines, distance measuring, compasses, and other features of the map, we’ll complete a scavenger hunt and navigate the schoolyard!

CLIMATE CHANGE INVESTIGATION: THE THREAT TO MINNESOTA’S MOOSE
Grades 6–12 | At-school | 30–90 min.

The Boundary Waters is especially vulnerable to climate change as it lies in the Boreal Forest, our northernmost ecosystem and full of iconic Minnesota species such as the moose. In an interactive investigation, students will gather evidence on current trends in the Boundary Waters moose population, and investigate how these changes are tied to emissions predictions for the future. Following the visit, students will create a Climate Action Plan to brainstorm changes they can make to influence our emissions future. This course features several pre- and post-lesson options to make a this a week-long unit.
WATERSHED INVESTIGATION
Grades 9–12 | At-school | 45–90 min.
The BWCA is home to some of the world’s cleanest water! In this course, students will form an understanding of a watershed, pollution-sensitive species in Minnesota, and watersheds in their own community. We’ll explore how elements in nature filter out pollutants as we test different bodies of water and measure their quality to determine if the pollution sensitive fish species, the Cisco, would be able to thrive there.

WATER QUALITY “DAY IN THE LIFE”
Grades 6–8 | At-school | 30–60 min.
There’s a lot of impact humans can have on bodies of water! Students will go through a “day in the life” in the Boundary Waters and focus on the choices that impact water quality. They will gain an understanding of pH and Turbidity, and have a chance to test how different choices affect these elements of water quality.

BIOME INVESTIGATION
Grades 6–12 | At-school or online unit
30–90 min.
There are several biomes throughout Minnesota, and each has a unique climate and land characteristics that impact the species that thrive there. We’ll explore a few features of the Boreal Forest biome, then practice making observations outdoors to make a biome profile for your schoolyard! Students will have the opportunity to make observations, use tree identification, and compare climate data to determine their local biome.

“ASK THE EXPERT” GUEST PRESENTATIONS
Virtual presentation | 30–60 min.
Want to build on a visit experience with a virtual session with a BWCA expert? Our guest speakers are available to cover a variety of topics such as Climate Change in the BWCA, a Day in the Life of a Forest Ranger, and many more!

Check out the list and sign up [here](#).
(Ask the Expert sign up only – for all other visit sign ups, follow the link on the cover page.)

Standards vary by guest presenter. Contact alison@friends-bwca.org for more information on MN State Standards for our guest presentations. View our standards list for all other courses.
ANIMALS & ECOSYSTEMS
Explore animal adaptations and how different species interact with each other. Assess the different parts of an ecosystem and explore human impact in the BWCA and your community.

ACTIVITIES INCLUDE:
- Skull Investigation
- Solo Nature Walk
- BWCA Ecosystem Web
- Portage Challenge
- Biome Investigation

WATERSHEDS & WATER QUALITY
Explore the most abundant resource in both the BWCA and Minnesota — water! Students will gather a better understanding of how watersheds function in the BWCA ecosystem and their own area.

ACTIVITIES INCLUDE:
- Water Quality Investigation
- Map and Compass
- Biome Investigation
- Portage Challenge
- Paddle Relay

BWCA SKILLS DAY
Get your students outside, active, and working together! This route focuses on building teamwork and appreciation of nature as your students try out different BWCA skills.

ACTIVITIES INCLUDE:
- Paddle Relay
- Portage Challenge
- Bear Bag Challenge
- Tents and Tarps
- Map and Compass

BWCA ADVENTURE DAYS
2–4 hours | Designed to span multiple class periods with single or multiple classrooms.
Location: Outdoors at your school (recommended), a large indoor space such as a gymnasium, or a park near your school.

Bring your class on a BWCA Adventure in your own schoolyard! Students rotate through stations as they work together, learn more about the environment, make observations, and try out new skills. Choose from three themes:

Photo: Heather Gavrish

MN state standards for BWCA Adventure Days
ONLINE RESOURCES

Don't have time for a visit or online presentation but still want to teach about the BWCA? Or do you want to add more to your visit with pre and post-visit lessons?

Check out all of our online materials, including units that students can go through at their own pace.

Sign up for our No Boundaries to the Boundary Waters Educator Network and get these materials delivered right to your inbox!

CANOE TRIPS

To build on their classroom experiences, we work with schools to provide students with a summer wilderness trip in the Boundary Waters. Thomas Flint Wilderness Canoe Scholarships are available that can make this a cost-free experience for students.

Find out more at friends-bwca.org/educational-canoe-trips and contact Alison Nyenhuis at alison@friends-bwca.org
NO BOUNDARIES TO THE BOUNDARY WATERS

Are you eager to have your students work together on hands-on activities?

Our No Boundaries to the Boundary Waters program brings virtual and in-person resources right to your classroom. Some of our partners even incorporate a weeklong trip to the Boundary Waters through our unique scholarship program.

Our 6–12 grade, standards-aligned curriculum fills crucial STEM needs, inspires kids to get outside, and emphasizes multicultural perspectives. Here’s what educators who joined the No Boundaries network have to say:

100% Would recommend the program to other teachers
100% Believe the program helped students learn more about nature and understand the impact humans have on the natural world
90% Indicated that programs were inclusive to students from a wide variety of cultural backgrounds and experience outdoors
90% Believed their students were more likely to spend time outdoors as a result of this program

“Students had lots of questions about the Boundary Waters and were able to make great connections with the biomes they see around them. It sparked an interest in the students to want to visit the Boundary Waters and share their experiences with the outdoors. As a teacher, the online content is easy to use and engaging. And we are so looking forward to our school visit later in the year!” – Heather Gavrish, 6th–8th grade science

NO BOUNDARIES COMPONENTS:

ONLINE MATERIALS
EXPERT PRESENTATIONS
CLASSROOM VISITS
WILDERNESS CANOE TRIPS

Join the No Boundaries Educator Network today (it’s free!) and receive lessons, resources, online units, and all of the information on our programming. Visit our website to join: friends-bwca.org/outdoor-education/classroom-materials
FREQUENTLY ASKED QUESTIONS

HOW MUCH DOES A VISIT COST?
This program is funded by a generous grant from the Legislative Citizen-Commission on Minnesota Resources (LCCMR), and most schools qualify for a free or reduced-cost visit. Contact us to learn more!

I’M SEVERAL HOURS AWAY FROM THE BOUNDARY WATERS. HOW FAR WILL YOU TRAVEL?
Our education staff travels all over the state for programs. Whether you are located near Lake of the Woods, St. Cloud, or Rochester, we can find a way to come to you. Fill out the interest form and we will talk through the details with you.

I HAVE SEVERAL CLASSROOMS OF THE SAME CLASS. CAN I SIGN UP FOR MULTIPLE PRESENTATIONS IN ONE DAY?
Yes! We can come to your classroom for consecutive classes, or you can look at our BWCA Adventure Days to combine your classes into a longer program. If you have more than one day of classes and would like presentations over multiple days, please contact us. Our availability will vary depending on the distance from our headquarters in St. Paul.

I WANT TO DO ALL OF YOUR PROGRAMS! CAN MY CLASS DO MORE THAN ONE VISIT WITH YOU?
If you are interested in multiple programs for your class, we would recommend you try a BWCA Adventure Day program! These combine several of our shorter classes into a fun-filled afternoon or morning.

DO THESE PROGRAMS MEET STATE STANDARDS?
Yes! Our programs meet several Minnesota state standards in science, social studies, language arts, math, and physical education for grades 6–12. Check out our MN state standards list for more information.