

# Field trip locations pre-approved for bus funding

## About the Hennepin County environmental field trip bus funding

Field trips can provide audiences of all ages a meaningful experience to see environmental processes in-person, learn about sustainability in action, and develop a closer connection with the natural world. To overcome a common barrier to going on field trips, Hennepin County provides bus transportation to schools and organizations to take their groups on environmental field trips.

Buses are provided through a contract Hennepin County has with a bus company. The county cannot reimburse for bus funding arranged through other companies.

### Choosing a field trip location

The field trip locations and activities included in this document are pre-approved for bus transportation from Hennepin County. You can go to field trip sites not listed in this document, but you will have to provide more details about the field trip location and activities and how they align with the county's goals for this program. Field trips must occur within the seven-county Twin Cities metro area.

### Steps to apply for bus funding

To receive bus funding from the county:

1. **Decide where you are going:** Select a field trip location and activity from this document that aligns well with the age group and interest of your audience and your educational goals.
2. **Schedule your field trip:** Work with the selected field trip site to schedule a date and time for your field trip. You must have your field trip scheduled before you apply for bus funding.
3. **Plan your pre and post activities:** Plan pre and post field trip activities you will do with your group to prepare them for the field trip and reinforce and enhance the learning at the field trip. For ideas, ask your field trip site contact if they have pre or post curriculum or see Hennepin County's environmental activity guides at [hennepin.us/environmentaleducation](https://hennepin.us/environmentaleducation).
4. **Apply for a field trip bus:** Complete the field trip bus transportation request at [planyo.com/booking.php?calendar=53214](https://planyo.com/booking.php?calendar=53214) at least two weeks prior to your scheduled field trip.

## Guidelines and restrictions

- **Eligible organizations:** Eligible groups and organizations include schools, nonprofit organizations, community groups, youth groups, congregations, watershed districts, environmental clubs, and cities located within Hennepin County.
- **Participants:** Groups must have at least 25 participants age 7 and above. The majority of participants must be Hennepin County residents.
- **Bus funding limits:** Hennepin County will provide bus funding for each individual once per school year (defined as July through June). For school groups, this means the county will provide funding for one bus per class and/or grade level once per school year. For youth and adult groups, this mean the group can receive one bus grant within the school year timeframe.
- **Cancellations:** If you need to cancel, you must notify the Hennepin County bus grant coordinator 48 hours before your scheduled field trip. If you don't let us know you need to cancel 48 hours before your scheduled field trip, the field trip may count as your one field trip for the school year.

**Funding availability:** Hennepin County offers busing for environmental field trips through a non-competitive process, and applications are accepted on a rolling basis. Bus funding for field trips is awarded on a first-come, first-serve basis until funding for the year is allocated.

# Field trip locations

## Bell Museum, St. Paul

[www.bellmuseum.umn.edu/groups](http://www.bellmuseum.umn.edu/groups)

2088 Larpenteur Avenue West, St. Paul  
612-626-9660

## Bridging, Bloomington

[www.bridging.org](http://www.bridging.org)

201 West 87th Street, Bloomington  
952-888-0746

## Camp Tanadoona/Camp Fire Minnesota, Excelsior

[www.campfiremn.org/education/k12](http://www.campfiremn.org/education/k12)

3300 Tanadoona Dr, Excelsior  
612-235-7284

## Dem-Con Recycling Center, Shakopee

[www.dem-con.com/green-grades](http://www.dem-con.com/green-grades)

13020 Dem Con Drive, Shakopee  
952-445-5755

## HighPoint Center for Printmaking, Minneapolis

[www.highpointprintmaking.org](http://www.highpointprintmaking.org)

912 West Lake Street,  
Minneapolis  
612-871-1326

## Minnesota Landscape Arboretum, Chaska

[www.arboretum.umn.edu/FieldTrips.aspx](http://www.arboretum.umn.edu/FieldTrips.aspx)

3675 Arboretum Drive, Chaska  
612-301-1210 or [ArbTrips@umn.edu](mailto:ArbTrips@umn.edu)

## Mississippi Watershed Management Organization, Minneapolis

[www.mwmo.org/about/stormwater-park-learning-center](http://www.mwmo.org/about/stormwater-park-learning-center)

2522 Marshall Street NE, Minneapolis  
612-746-4970

## Pollinate Minnesota, Minneapolis

[www.pollinatemn.org/classes](http://www.pollinatemn.org/classes)

Various locations  
612-245-6384 or [erin@pollinatemn.org](mailto:erin@pollinatemn.org)

## Second Chance Recycling, Minneapolis

[www.secondchancerecyclingmn.com](http://www.secondchancerecyclingmn.com)

1179 15th Avenue SE, Minneapolis  
612-230-5741

## Shakopee Mdewakanton Sioux Community Organics Recycling Facility, Shakopee

[www.smscorf.com](http://www.smscorf.com)

1905 Mystic Lake Drive South, Shakopee  
952-233-9191, schedule a tour six weeks in advance

## Staring Lake Outdoor Center, Eden Prairie, Minnesota

[www.edenprairie.org](http://www.edenprairie.org)

13765 Staring Lake Parkway, Eden Prairie  
952-949-8479, [stekiela@edenprairie.org](mailto:stekiela@edenprairie.org)

## Target Field, Minneapolis

<https://www.mlb.com/twins/ballpark/tours>

1 Twins Way, Minneapolis  
612-659-3875

## The Mulch Store, Rosemount

[www.mulchstoremn.com](http://www.mulchstoremn.com)

16454 Blaine Avenue East, Rosemount  
612-366-5207

## Three Rivers Park District – Mississippi Gateway Regional Park, Brooklyn Park

<https://www.threeriversparks.org/location/mississippi-gateway-regional-park>

10360 West River Road, Brooklyn Park  
763-694-7790

## Three Rivers Park District – Eastman Nature Center, Dayton

[www.threeriversparks.org/location/eastman-nature-center](http://www.threeriversparks.org/location/eastman-nature-center)

13351 Elm Creek Road, Dayton  
763-694-7700

## Wood Lake Nature Center, Richfield

[www.richfieldmn.gov/around-town/wood-lake-nature-center](http://www.richfieldmn.gov/around-town/wood-lake-nature-center)

6710 Lake Shore Drive, Richfield  
612-861-9365

## Three Rivers Park District – Gale Woods Farm, Minnetrista

[www.threeriversparks.org/location/gale-woods-farm](http://www.threeriversparks.org/location/gale-woods-farm)

7210 County Road 110, Minnetrista  
763-694-2001

## Three Rivers Park District – Lowry NatureCenter, Victoria

[www.threeriversparks.org/location/lowry-nature-center](http://www.threeriversparks.org/location/lowry-nature-center)

7025 Victoria Drive, Victoria  
763-694-7650

## Three Rivers Park District – Richardson Nature Center, Bloomington

[www.threeriversparks.org/location/richardson-nature-center](http://www.threeriversparks.org/location/richardson-nature-center)

8737 Bush Lake Road,  
Bloomington  
763-694-7676

## Westwood Hills Nature Center, St. Louis Park

[www.stlouispark.org/government/departments-divisions/parks-rec/westwood-hills-nature-center](http://www.stlouispark.org/government/departments-divisions/parks-rec/westwood-hills-nature-center)

8300 W. Franklin Ave, St. Louis Park  
952-924-2544

## Wilderness Inquiry, Minneapolis

[www.wildernessinquiry.org/custom-trips/k-12-outdoor-education](http://www.wildernessinquiry.org/custom-trips/k-12-outdoor-education)

808 14th Ave S.  
Minneapolis  
612-676-9400

## Field trip site topics

Field trip site	Preventing waste, recycling and properly disposing of hazardous waste	Sustainability and green infrastructure	Understanding ecosystems
Bell Museum		Honey bees, pollination, our food and pollinator garden design	Observations in biodiversity
Bridging, Bloomington	Reuse facility tour		
Camp Tanadoona/ Camp Fire Minnesota, Excelsior		Go green class	Classes: <ul style="list-style-type: none"> <li>• Ecosystem exploration</li> <li>• Forest exploration</li> <li>• Water and streams</li> </ul>
Dem-Con Recycling Center, Shakopee	Recycling facility tour		
HighPoint Center for Printmaking, Minneapolis	Recycling monoprint class	Environmental activism screen printing class	Classes: <ul style="list-style-type: none"> <li>• Rain garden monoprint</li> <li>• Pollinator watercolor monoprint</li> </ul>
Minnesota Landscape Arboretum, Chaska		Classes: <ul style="list-style-type: none"> <li>• Minnesota harvest Pollinators, plants and people</li> </ul>	Classes: <ul style="list-style-type: none"> <li>• Pollinator superheroes</li> <li>• Fall in the forest</li> </ul> Discovery Spring PeeperMeadow
Mississippi Watershed Management Organization, Minneapolis		Stormwater Park tour	
Pollinate Minnesota, Minneapolis		Bee hive education	

Field trip site	Preventing waste, recycling and properly disposing of hazardous waste	Sustainability and green infrastructure	Understanding ecosystems
Second Chance Recycling, Minneapolis	Mattress recycling facility tour		
Shakopee Mdewakanton Sioux Community Organics Recycling Facility, Shakopee	Composting facility tour		
Staring Lake Outdoor Center, Eden Prairie			<p>Classes:</p> <ul style="list-style-type: none"> <li>• Animal and plant adaptations</li> <li>• Habitats</li> <li>• Lake water quality study</li> <li>• Monarch butterfly lifecycle</li> <li>• Pond study</li> <li>• Tree identification</li> </ul>
Target Field, Minneapolis		Learning through Baseball sustainabilitytour	
The Mulch Store, Rosemount	Composting facility tour		

Field trip site	Preventing waste, recycling and properly disposing of hazardous waste	Sustainability and green infrastructure	Understanding ecosystems
Three Rivers Park District – Coon Rapids Dam, Brooklyn Park			Classes: <ul style="list-style-type: none"> <li>• Case of the disappearing log</li> <li>• Decomposition mission</li> <li>• Mussels of the Mississippi</li> <li>• Pond I and II</li> <li>• Recycling and rot</li> <li>• River geology</li> <li>• River invertebrates</li> <li>• Sense and seasons</li> <li>• Trees</li> <li>• Water cycles</li> <li>• Water fun</li> <li>• Wetlands in the winter</li> </ul>
Three Rivers Park District – Eastman Nature Center, Dayton			Classes: <ul style="list-style-type: none"> <li>• Honey bees and pollination</li> <li>• Pond life study</li> <li>• Tree basics</li> <li>• Water quality and aquatic systems</li> </ul>
Three Rivers Park District – Gale Woods Farm, Minnerista		Classes: <ul style="list-style-type: none"> <li>• Farm explorers</li> <li>• What's for lunch?</li> <li>• The farm – nature's classroom</li> </ul>	
Three Rivers Park District – Lowry Nature Center, Victoria		Class: Human interactions with the Earth	Classes: <ul style="list-style-type: none"> <li>• Insects of ponds and wetlands</li> <li>• Bees and pollinators</li> <li>• Water quality</li> <li>• Reading the land</li> </ul> Relationships and energy flow
Three Rivers Park District – Richardson Nature Center, Bloomington		Class: Solar energy	Classes: <ul style="list-style-type: none"> <li>• Bees and other pollinators</li> <li>• Forest and trees</li> <li>• Pond and water studies</li> <li>• Prairie</li> </ul> Soils and decomposers

Field trip site	Preventing waste, recycling and properly disposing of hazardous waste	Sustainability and green infrastructure	Understanding ecosystems
Westwood Hills Nature Center, St. Louis Park			Classes: <ul style="list-style-type: none"> <li>• Food webs</li> <li>• Honey bees</li> <li>• Pond study</li> <li>• Tree identification</li> </ul>
Wilderness Inquiry, Minneapolis			Outdoor learning and adventure opportunities
Wood Lake Nature Center, Richfield			Classes: <ul style="list-style-type: none"> <li>• Bees and honey</li> <li>• Endangered species</li> <li>• Invasives!</li> <li>• Marsh explorers</li> <li>• Trees, leaves and seeds</li> <li>• Water quality</li> <li>• Weather and water cycle</li> </ul>



# Description of field trip tours, activities and classes

## Preventing waste, recycling and properly disposing of hazardous waste

Topics covered by at these field trip locations include what can be recycled in our community, how the recycling process works, what products are made from recycled materials, and why recycling is important. Additional topics covered include preventing waste, reusing materials and resources, identifying and properly disposing of hazardous materials, and reducing the amount of hazardous products we use.

### **Bridging, Bloomington**

Through the effective reuse of donated items, Bridging provides quality furniture and household goods to those transitioning out of homelessness and poverty. Tour participants visit the Bridging facility and learn about how reuse can help those in need.

Fee: no charge

Ages: all ages

Time: 30 minutes to 1 hour

### **Dem-Con Recycling Center, Shakopee**

Dem-Con Companies is full-service recycling, processing and disposal company. Visitors see in-person how material collected at home is sorted by both machines and people into material categories like paper, metal, glass and plastic. A typical tour at Dem-Con consists of a classroom session, conducting a sorting activity, and a tour of their recycling facility.

Fee: \$250 per group

Ages: 8 years through adults

Time: 1 hour

### **Highpoint Center for Printmaking, Minneapolis**

Highpoint is a nonprofit organization dedicated to advancing the art of printmaking. The organization aims to provide educational programs, community access, and collaborative publishing opportunities to engage the community and increase the appreciation and understanding of the printmaking arts.

Fee: \$75 to \$150 depending on time

Ages: grades 4 to 8

Group size: 30 maximum

Time: 1 to 1.5 hours

Approved classes:

- **Recycling monoprint:** Students collect trash and recycling outside to use as stencils for a monoprint. Discussions focus on the importance of keeping our environment clean, what is and isn't recyclable, and how what seems like garbage can sometimes be useful when you recycle, reuse, or make art!

## Second Chance Recycling, Minneapolis

Second Chance Recycling works to dismantle and recycle mattresses and bed springs. They also sort out batteries to send to recyclers. Visitors walk through the mattress recycling facility and see all parts of the recycling process.

Fee: no charge

Ages: grades 5 through 12

Group size: 15 to 20; larger groups can be accommodated by scheduling consecutive tours

Time: 30 to 45 minutes

## Shakopee Mdewakanton Sioux Community Organics Recycling Facility, Shakopee

The Shakopee Mdewakanton Sioux Community offers tours of their commercial composting site in Shakopee. Learn how organic waste is turned into compost that is then used to improve soil in landscaping and construction projects.

Fee: no charge

Ages: grades K through adults

Time: 45 minutes to 1 hour

## The Mulch Store, Rosemount

The Mulch Store, a Specialized Environmental Technologies, Inc. company, offers tours at their commercial composting facility in Rosemount. Learn how organic waste is turned into compost that is then used to improve soil in landscaping and construction projects.

Fee: no charge

Ages: grades 4 through adults

Time: 45 minutes

## Sustainability and green infrastructure

These field trips explore how humans interact with the environment to get things we need like food, water and energy, how we can build infrastructure that protects the environment, and what actions we can take to be good stewards. Topics include farming and food systems, green building, renewable energy, and water infrastructure.

## Bell Museum of Natural History, St. Paul

The Bell Museum, situated on the St. Paul campus of the University of Minnesota, offers a wide variety of natural history attractions, collections and classes.

Fee: \$6 per student

Ages: grades K through 12

Time: varies

Approved classes:

- **Honeybees, pollination, and our food (grades K – 6):** The most important environmental issue we face today may be the global disappearance of pollinators. This hands-on, experiential learning lab ushers students through the connections between honey bees, pollination, and our global food sources. Students will learn how pollination works in plants by dissecting the parts of the plant and how a range of pollinators participate in the process.
- **Honeybees, pollination, our food and pollinator garden design (grades 7 and 8):** Students learn about native plant species and their relationship with the many pollinators that work together. Through these interspecies

interactions, survival is ensured. In addition, human survival is maintained through agriculture reliant on pollinators. Learners will explore environmental issues related to pollinators and their disappearance. Peer driven collaborative learning culminates in the design of a pollinator garden that takes into consideration native vegetation, needs of pollinators and diversity of pollinators.

## Camp Tanadoona/Camp Fire Minnesota, Excelsior

Camp Tanadoona is a Camp Fire Minnesota facility on the shore of Lake Minnewashta. Spark your students' curiosity through hands-on, experiential learning outdoors. Tanadoona's 103 acres of outdoor classroom feature Big Woods forest, black ash swamp, wetlands, savanna and 2,000 feet of shoreline.

Fee: free for up to 2 hours

Age level: grades K through 12

Time: varies

Approved classes:

- **Go green:** This class puts an emphasis on being a good steward of the earth. Activities cover recycling, composting, and conservation.

## Highpoint Center for Printmaking, Minneapolis

Highpoint is a nonprofit organization dedicated to advancing the art of printmaking. The organization aims to provide educational programs, community access, and collaborative publishing opportunities to engage the community and increase the appreciation and understanding of the printmaking arts.

Fee: \$75 to \$150, depending upon length

Ages: grades 8 through 12

Group size: 30 maximum

Time: 1 to 1.5 hours

Approved class:

- **Environmental activism screen printing (grades 8 through 12):** Students learn about various environmental issues, either during the visit or at school. They choose one of these and create a design to advocate for that issue. Then students learn how to make a screenprint to produce these images in a non-toxic and responsible way. This class can focus on reducing waste, recycling, climate change, and protecting land and water, and more.

## Mississippi Watershed Management Organization, Minneapolis

The Mississippi Watershed Management Organization's Stormwater Park and Learning Center offers visitors the chance to experience a living laboratory of green infrastructure along the Mississippi River. The Stormwater Park and Learning Center incorporates a series of visible landscape features that capture, clean and reuse stormwater runoff. Explore our urban watershed through interactive displays with a facilitator.

Fee: no charge for the first two hours

Ages: grades 4 through 8

Time: free for up to 2 hours

## Minnesota Landscape Arboretum, Chaska

The Minnesota Landscape Arboretum includes more than 1,200 acres of gardens and tree collections, prairie and woods, and miles of trails. Classes provide students hands-on, science-based learning in Arboretum gardens, greenhouses and research plots that address science standards in every season.

Fee: \$6 per student

Ages: grades K through 6

Group size: 12 to 96

Time: 1.5 hours

Approved classes:

- **Minnesota harvest – healthy eating from and for the Earth (grades 3 through 6, fall):** Send off the harvest season by exploring local food, cultures, traditions, and scientific advances that contribute to the Minnesota harvest. Students will practice food label and map reading skills to determine where grocery foods come from and how far they travelled to get to our plates. They will then experience a tasting tour of local foods. Popcorn and puffed wild rice highlight native local food traditions. Students will make homemade applesauce and learn about the recent scientific advances that allow apple trees to be grown in Minnesota. For dessert, students will make and taste sweet potato pie, dig sweet potatoes from the garden, and learn about the scientific work of George Washington Carver. In addition, students will learn about the nutritional benefits of these foods and receive take home recipes to share with family and friends!
- **Pollinators, plants, and people – partnerships for life (grades 3 through 5, spring):** Find out how plants and pollinators are specially designed for one another. Zoom in to discover how pollinator bodies are adapted to work with flowers, and how this unique partnership benefits both plants and pollinators. Explore gifts from the hive and find out how people are harnessing the power of pollinator-plant partnerships. Tour the exhibit hall to learn more about the critical relationships Minnesota pollinators have to Minnesota plants, and find out what role people play in making sure these relationships remain productive and healthy. Plant a pollinator friendly plant to take home!

## Pollinate Minnesota, Minneapolis

Pollinate Minnesota is an education and advocacy organization working toward a better Minnesota for pollinators and people. Pollinate Minnesota field trips are held at one of their education apiary sites and are tailored to grade level and topic focus.

Fee: \$180

Group size: up to 35

Ages: grades K through 12 and adult education

Time: 1.5 hours

## Target Field, Minneapolis

Designed and operated with sustainability in mind, Target Field offers educational tours with a sustainability focus as part of its Learning through Baseball program. Students see the ballpark while learning about topics such as water conservation, rainwater recycling, and transit connections. Tours highlight the ballpark's recycling program, including the extensive organics recycling efforts. Tours also visit the Pentair water filtration system and discuss the use of steam from the Hennepin County Energy Recovery Center next door.

Fee: \$8 per student

Ages: Grades K through adult

Time: 1.5 hours

## Three Rivers Park District – Gale Woods Farm, Minnetrista

Gale Woods Farm offer outdoor fun on a real working farm. Located on picturesque Whaletail Lake, Gale Woods features a unique educational opportunity where visitors gain an understanding of agriculture, food production and land stewardship.

Fee: \$6.50 to \$11.00 each

Ages: Pre-K through Grade 12

Time: 1 hour or more

Approved classes:

- **Farm Explorers (Pre-K through 1st grade):** Meet farm animals and participate in farm chores such as feeding or collecting eggs. Learn about what animals provide for people and what farmers must provide for their animals. Explore composting and the importance of dirt. Get your hands dirty in the greenhouse or garden and discover the role of plants on a farm.
- **What's for lunch? Explore the farm-food connection:** How does food get from a farm to your table? What foods can be grown in Minnesota? Explore the plant and animal sources of your food and learn the behind-the-scenes aspects to getting food to your table.
- **The farm – nature's classroom:** The farmer plants and reaps, but Mother Nature truly produces our food through soil, water and sunlight. With hands-on activities in soil science, water quality testing, composting, and other nature investigations, learn how the farm produces food and affects the environment.

## Three Rivers Park District – Richardson Nature Center, Bloomington

Located within Hyland Lake Park Reserve, Richardson Nature Center is a gateway to stunning natural beauty just minutes from the city. The building has several classrooms, colorful clay mosaics and sculptures, and live raptors, reptiles and amphibians. The interpretive area surrounding the building features hiking trails that weave between the diverse habitats of restored prairie, oak forests, and wetlands.

Fee: varies

Ages: Grades 4 through 8

Time: 1.5 to 2 hours

Approved class:

- **Solar energy:** Learn how a photovoltaic system on Richardson Nature Centers' roof gathers energy from the sun and converts it into electricity. Build circuits and discover how nature and humans harness the sun's energy through a variety of hands-on activities.

## Three Rivers Park District – Lowry Nature Center, Victoria

Lowry Nature Center is a beautiful, prairie-style building nestled in the middle of Carver Park Reserve. Visitors can view seasonal interpretive displays, visit live animals, and observe birds in the wildlife viewing area. The 250-acre interpretive area features hiking trails that weave between diverse habitats such as lakes, tamarack bogs, cattail marshes, and hardwood forests.

Fee: varies

Ages: Grade K through 8

Time: 1 hour or more

Approved classes:

- **Human interactions with the Earth (grades 3 through 8, year-round):** We interact with the environment both positively and negatively. The use of our resources, both renewable and non-renewable, can change ecosystems. Learn some ways humans impact the earth and problem-solve some solutions.

## Understanding ecosystems

These field trips involve learning about what an ecosystem is, how we impact ecosystems, and what we can do to protect, preserve and enhance ecosystems. Activities illustrate human interaction and impact on our environment and the plants and animals that live in it.

### Bell Museum of Natural History, St. Paul

The Bell Museum, situated on the St. Paul campus of the University of Minnesota, offers a wide variety of natural history attractions, collections and classes.

Fee: \$6 per student

Ages: Grades K through 12

Time: varies

Approved classes:

- **Observations in Biodiversity (grades 7 and 8):** Students explore and compare aquatic and terrestrial ecosystems. Posed with the question: "Which ecosystem has a higher biodiversity of organisms: wetlands or grasslands?" learners form a hypothesis by predicting an answer and justifying their prediction. Using scientific tools, learners explore the biodiversity of ecosystems, collect data and make observations, classify data as quantitative or qualitative, and distinguish between abiotic and biotic factors. Finally, students build and present original, collaboratively created dichotomous keys as they learn the value of the scientific process and the necessity of communicating scientific ideas.

### Camp Tanadoona/Camp Fire Minnesota, Excelsior

Camp Tanadoona is a Camp Fire Minnesota facility on the shore of Lake Minnewashta. Spark your students' curiosity through hands-on, experiential learning outdoors. Tanadoona's 103 acres of outdoor classroom feature Big Woods forest, black ash swamp, wetlands, savanna and 2,000 feet of shoreline.

Fee: free for up to 2 hours

Ages: Grades K through 12

Time: varies

Approved classes:

- **Ecosystem exploration:** Look at the environment as a whole and how one action effects another. Activities involve learning how all things are connected and taking an ecosystem hike around the property that includes a lake, forest, prairies, and wetlands.
- **Forest exploration:** Learn all about trees and succession. Activities include identifying trees, discovering the parts of a tree, learning about everyday uses of trees, going on a scavenger hunt, and learning how succession works.
- **Water and streams:** This class is all about water and the creatures that need it. Activities include conducting a lake study where students catch and identify little critters, learning how much water is in the world and the importance of caring for it, exploring our wetlands, and discovering all the properties of water that make it so unique.

## Highpoint Center for Printmaking, Minneapolis

Highpoint is a nonprofit organization dedicated to advancing the art of printmaking. The organization aims to provide educational programs, community access, and collaborative publishing opportunities to engage the community and increase the appreciation and understanding of the printmaking arts.

Fee: \$75 to \$150, depending upon length

Ages: Grades 4 and 5

Group size: 30 maximum

Time: 1 to 1.5 hours

Approved classes:

- **Rain garden monoprint (grades 4 and 5):** Students learn the basics of the water cycle and how a rain garden works. Each student is assigned a native plant to identify in Highpoint's rain garden. Participants collect leaves from these plants and use them to make a monoprint using soap and water-washable, oil-based inks.
- **Pollinator watercolor monoprint (grades 4 and 5):** Students learn about the interconnectivity of ecosystems, even urban ones, and how bees and pollinators are important to these ecosystems. The discussion focuses on what we can do to help bees and pollinators. Students then create an image using watercolor paints and water-soluble crayons. These images will illustrate a problem with how we treat bees and a solution about how we can make things better. These images are then printed on an etching press to create vibrant and colorful prints.

## Minnesota Landscape Arboretum, Chaska

The Minnesota Landscape Arboretum includes more than 1,200 acres of gardens and tree collections, prairie and woods, and miles of trails. Classes provide students hands-on, science-based learning in Arboretum gardens, greenhouses and research plots that address science standards in every season.

Fee: \$6 per student

Ages: grades K through 6

Group size: 12 to 96

Time: 1.5 hours

Approved classes:

- **Pollinator Superheroes (grades K through 2, spring and fall):** Meet Minnesota's pollinator superheroes during this dynamic field trip experience at the Arboretum's new Tashjian Bee and Pollinator Discovery Center. Learn about the important work of hundreds of different kinds of native bees and explore the life of the amazing honeybee whose colony can pollinate thousands of acres of food crops and produce over a hundred pounds of honey in a year! Get a taste of the honeybee's amazing gifts from the hive in the Honey House. Get a pollinator's perspective on flowers by zooming in to see the pollen and flower structures that entice these pollinator superheroes to visit.
- **Fall in the forest (grades K and 1, fall):** There is a lot happening in Minnesota forests as summer turns to fall. Meet the "Talking Tree" and learn who lives in each forest layer during the introductory puppet show. Get up close and personal with decomposers – the forest recycling crew that turn piles of leaves and tree stumps into nutrient rich "Humus" soil. In the decomposer lab, learn how sowbugs, centipedes, mushrooms and millipedes turn hardwood into spongy, crumbly soil then see it for yourself on a forest hike!
- **Discover Spring Peeper Meadow (grades 2 through 5, spring):** Tour Spring Peeper Meadow and take part in the Arboretum's Grand Scientific Experiment. In 1997, the Arboretum began a wetland restoration project with the purchase of a corn field. Twenty years later, the corn field has been restored to a sedge meadow wetland. While

on this trip you will explore diversity of life of the plant community, invertebrates living in the water, and the birds and wildlife of the meadow.

## Staring Lake Outdoor Center, Eden Prairie

Tucked away in the heart of Eden Prairie, the Staring Lake Outdoor Center is a 150-acre natural area spread along the shores of a 150-acre natural lake. The center is dedicated to environmental education, wildlife conservation, and outdoor recreation. Staring Lake Park features 2.4 miles of paved walking and biking trails around the lake, two acres of native prairie, a woodland pond, and Purgatory Creek running through the middle. It is also home to the Staring Lake Observatory with a 16-inch telescope, 8-inch telescope, and a staff of astronomers.

Fee: \$3 to \$5 per student depending upon the program

Ages: Grades K through 6

Time: 1.5 to 2 hours

Approved classes:

- **Monarch butterfly lifecycle (grades 1 through 4, fall):** Collect monarch caterpillars and learn about the life cycle. Provide official wing tags to apply to butterfly before release.
- **Trees and apple cider (grades K to through 3, fall):** Learn the parts of a tree, leaves, and functions. Several children are involved with changing a student into a tree and all the elements needed to help the tree grow such as sunshine and rain. Learn about apples and crush and press apples in an old-fashioned wooden cider press. Play a leaf matching game while running relay race.
- **Maple syrup (grades K to through 3, spring):** Learn about trees and how they function. Several children are involved with changing a student into a tree and all the elements needed to help the tree grow such as sunshine and rain. Go out and tap a tree to collect tree sap. Watch as sap is heated and evaporated to make maple syrup.
- **Seed dispersal (grades 1 through 3, spring and fall):** Learn about how plants produce seeds and, most importantly, how they disperse the seeds. Play a seed dispersal (hitchhiker) game by pretending to be your favorite animal while students deposit seeds on you. Play a chipmunk game to learn how to collect and store your seeds. Collect seeds from our native prairie.
- **Lake and forest explorers (grades 3 through 6, fall and spring):** Paddle around the lake in canoes to explore the lake and learn about the health of the water, storm water runoff, and creek versus lake ecosystems. Learn survival techniques such as shelter building and fire starting.
- **Lake/water quality (grades 4 through 6, fall, winter, and spring):** Test the quality of lake water in Staring Lake. Through a combination of water sampling and chemical analysis along with sampling by dip netting to capture a wide variety of macroinvertebrates, students will determine the overall quality of the lake water. We will examine the macroinvertebrates through a microscope that projects onto a 70-inch monitor in the classroom.
- **Adaptations (grades K through 3, fall and spring):** Explore three different and unique ecosystems: prairie, lake and woodland. Learn which insects, birds, and animals live in these habitats. How did they adapt to survive in this ecosystem? Take pictures with iPads to bring examples of the habitats back to the classroom.



## Three Rivers Park District – Mississippi Gateway Regional Park, Brooklyn Park

Mississippi Gateway Regional Park offers many opportunities to see the mighty Mississippi River up close. The 160-acre park includes a 12-foot-wide observation walkway on top of the dam, good access to get up close and touch the river, forest and prairie areas, plus a visitor center with live animals.

Fee: varies based upon group size

Ages: Grade K through 12

Time: 2 hours

Approved classes:

- **Pond I (grades K through 3, spring):** What lives in a pond? This class includes an introduction to invertebrates and the amazing adaptations they have to survive. Students don boots and wade in to collect a variety of “water bugs.”
- **Recycling and rot (grades K through 3, spring and fall):** Students participate in a play about how a tree lives, dies, decomposes and make soil for new life to grow. Carefully turn over dead logs to discover insects and other invertebrate decomposers as well as fungi. Learn at least three things that aid in natural decomposition.
- **Sense and seasons (grades K through 3, year-round):** Use all your senses to explore the animal and plant life outdoors. What clues do animals leave about their activities? A puppet show may be included.
- **Water fun (grades K through 3, spring, and fall):** Explore the water to see how water flows, what floats, and what lives in the water. Look for creatures living in the pond.
- **Case of the disappearing log (grades 4 through 6, spring and fall):** Be a detective and explore fallen logs. Use a key to identify evidence of different organisms. Use observation and reasoning to make explanations about what may have happened to the log.
- **Decomposition mission (grades 4 through 6, spring and fall):** Investigate the fascinating and complex process of decomposition. Search for evidence in the park. Lay the foundation for deeper understanding of concepts related to matter and energy transfer in ecosystems. Learn the difference between physical decomposition and chemical decomposition.
- **Mussels of the Mississippi (grades 4 through 6, winter):** How do organisms depend on their physical environment? Students learn about freshwater mussels and their adaptations, as well as how mussels contribute to other life in the Mississippi. A presentation is followed by a game in which students become young mussels that must survive. Students will examine real mussels and learn how some common mussels are identified.
- **Pond II (grades 4 through 6, spring):** Boots and nets enable students to catch a variety of organisms and discover which ones are predators and which are prey.
- **River geology (grades 4 through 6, spring and fall):** Every rock has a story! Students learn about local geology and are able to identify igneous, sedimentary, and metamorphic rocks found on the river shoreline. Basic instruction on rock formation is followed by a rock collecting expedition in the park.
- **River invertebrates (grades 4 through 6, spring and fall):** Students learn about different groups of river insects and what they reveal about water quality. Depending on available time, students can learn to use a pictorial key to identify invertebrates by adaptations and characteristics. Organisms are observed closely using microscopes and hand lenses, and students will be able to differentiate between the three major groups found here. Students don boots and use kick nets to capture live invertebrates in the Mississippi River.
- **River study (grades 4 through 6, spring and fall):** The Mississippi River Is a living laboratory where students use boots, equipment, and test kits to determine the physical, biological and chemical components of water quality. Students divide into teams to test the water and capture live invertebrates, which can provide information on pollutant and oxygen levels. Safe access to the river and a wonderful variety of insect larvae make the one of the top spots for students to study the Mississippi.
- **Trees (grades 4 through 6, year-round):** Use math skills to count, estimate, and measure big trees. Hike to see

the diversity of trees in the forest and learn to classify them by leaves, branches, and bark.

- **Water cycles (grades 4 through 6, year-round):** Where is water found on earth and how is it recycled again and again? Students become a water drop and play an active inside game to find out what path each take. A naturalist-led walk explores where water is found in the park in each of its three forms: solid, liquid, and gas.
- **Wetlands in winter (grades 4 through 6, winter):** How are Minnesota's wetlands classified? What are the main characteristics of some of our state's more common wetland types, and what do wetlands provide? During cold weather, students can walk through several wetlands in the park and look for indicator plants and animal signs.

### Three Rivers Park District – Eastman Nature Center, Dayton

Eastman Nature Center is nestled in the sugar maple floodplain forest of Rush Creek. Visitors can walk across the floating boardwalk, explore the miles of hiking trails, and visit the nature center that has wildlife viewing areas and live animals.

Fee: \$4.80 per student, \$72 minimum

Ages: Grades K through 12

Time: 1 hour or more

Approved classes:

- **Honey bees and pollination (grades 1 through 6, spring and fall):** Find out about amazing bees, including their life cycle, social structure, and roles in the hive. See the inside of an actual live hive from inside a screen tent! Play the Pollination Game and try the Bee Dance. Learn about the importance of bees and about threats to their populations. Look for pollinating insects in the field.
- **Pond life study (grades K through 3, spring and fall):** Examine the diversity of life in a pond. Observe and compare macroinvertebrates as students catch and release them with a net. Identify the different body characteristics of many aquatic animals and their life cycle stages. Discover the importance of wetlands and water quality. Meet a live reptile or amphibian.
- **Tree basics (Grade K, spring and fall):** A puppet show reviews a tree's basic parts and how, though alive, trees are quite different from us! Students play a sorting game to learn the basic shapes of common tree leaves and follow up with a woodland hunt. A trailside exploration of different ages of the same tree emphasizes basic parts and how trees change as they grow. Trees as animal habitat is another theme of the hike.
- **Water quality and aquatic systems (grades 4 through 6, spring and fall):** Discover how scientists determine water quality. Collect macroinvertebrates and use a biotic index to evaluate the health of a pond. Conduct tests to assess the chemical and physical properties of water. Play a game to learn about different types of pollution, their sources and impacts, and strategies to reduce them.

### Three Rivers Park District – Lowry Nature Center, Victoria

Lowry Nature Center is a beautiful, prairie-style building nestled in the middle of Carver Park Reserve. Visitors can view seasonal interpretive displays, visit live animals, and observe birds in the wildlife viewing area. The 250-acre interpretive area features hiking trails that weave between diverse habitats such as lakes, tamarack bogs, cattail marshes, and hardwood forests.

Fee: varies

Ages: grades K through 8

Time: 1 hour or more

Approved classes:

- **Insects of the ponds and wetlands (grades 1 and 2, spring and fall):** Learn the characteristics of an insect and the differences between an invertebrate and an insect. Compare their life cycles and visit ponds and wetlands to

search for aquatic invertebrates.

- **Bees and pollinators (grades 1 and 2, spring and fall):** Discover the properties and social systems of a beehive through observing a real working community. Learn about insect life cycles, pollination and how humans depend on bees.
- **Water quality (grades 3 through 5, spring, and fall):** Learn how water moves around the planet. Observe and analyze wetlands for diversity of animal and plant life. Perform quantitative and qualitative tests on water samples. Discuss how humans affect water supply and action to take better care of our water.
- **Reading the land – digging into the past (grades 3 through 5, spring and fall):** Learn about the Lake Minnetonka area from glacial times to the present. Discover how glaciers shaped the land, explore how American Indians lived, and see evidence of early pioneers.
- **Relationships and energy flow (Grades 6 through 8, year-round):** The sun is the source of...everything! All energy can be traced back to the sun. Explore the structure of the systems, relationships between producers, consumers and decomposers, and learn how organisms extract energy. Study food webs and the relationships between predators and their prey.

### Three Rivers Park District – Richardson Nature Center, Bloomington

Located within Hyland Lake Park Reserve, Richardson Nature Center is a gateway to stunning natural beauty just minutes from the city. The building has several classrooms, colorful clay mosaics and sculptures, and live raptors, reptiles and amphibians. The interpretive area surrounding the building features hiking trails that weave between the diverse habitats of restored prairie, oak forests, and wetlands.

Fee: varies

Ages: Grades K through 12

Time: 1 hour or more

Approved classes:

- **Bees and other pollinators (grades 3 through 8, fall):** Explore the science of beekeeping and the importance of bees as plant and crop pollinators. Observe working beehives, participate in extraction of honey, measure how much honey a bee can make and taste some raw honey. On a hike, watch pollinators in action – collecting nectar and pollen to transform a flower into a seed.
- **Forest and trees (grades 3 through 8, year-round):** Discover the importance of forests. Identify several different Minnesota trees. Learn about the forest layers, animals, and plants that live in the habitat and how people benefit from products in the forest.
- **Pond and water studies (grades K through 8, spring and fall):** Find out why aquatic habitats are so important. Catch and observe a variety of aquatic invertebrates. Sort and classify organisms to determine water quality. Magnifiers and a microscope projector can be added for further exploration.
- **Prairie (grades 3 through 8, spring and fall):** Immerse in the sights, sounds, smells, textures and inhabitants of the tallgrass prairie. Learn the history and importance of this vanishing ecosystem.
- **Soils and decomposers (grades K through 8, spring and fall):** Uncover different types of soils, plants, and animals on the forest floor. Explore dead trees and rotting logs in search of decomposers. Can be adapted for older students to study soil compositions more closely.

## Westwood Hills Nature Center, St. Louis Park

Westwood Hills Nature Center is a 160-acre natural area featuring marsh, woods and restored prairie.

Fee: \$4 to \$5 per student

Ages: Grades K through 12

Time: 1 to 1.5 hours

Approved classes:

- **Food webs (grades 5 through 12, year-round):** Examines producers, consumers, and decomposers. Includes study of flow of energy and recycling of matter.
- **Honey bees (grades K through 12, spring and fall):** Covers bee keeping and life cycles.
- **Pond study (grades K through 12, spring and fall):** Topics include Minnesota pond life, life cycles, metamorphosis, aquatic macroinvertebrates.
- **Tree identification (grades 4 through 12, fall):** Learn to identify Minnesota trees using dichotomous keys.

## Wilderness Inquiry, Minneapolis

Wilderness Inquiry offers a range of outdoor learning and adventure opportunities designed for K-12 students of all backgrounds and abilities. Programs are available for all grade levels with varying levels of intensity from land-based activities to time spent on the water.

Fee: \$25 per youth/\$45 per adult

Ages: Grades 6 through adult

Time: 3 to 4 hours

## Wood Lake Nature Center, Richfield

Wood Lake Nature Center is a 150-acre natural area dedicated to environmental education, wildlife observation, and outdoor recreation. The park features several wildlife viewing areas, and three miles of trails and boardwalks.

Fee: \$3 per student, \$40 minimum

Ages: Grades K through 12

Time: 1 hour or more

Approved classes:

- **Bees and honey (grades 1 through 6, spring and fall):** Collect insects and learn about the bees' hive and life cycle. Finish the program with a sample of Wood Lake honey. Class supply fee is \$5 for 1 to 15 students and \$10 for 16 to 30 students.
- **Endangered species (grades 2 through 6, year-round):** Learn the difference between endangered, threatened, and extinct species. Play an active game to learn what it's like to be a threatened species, then meet a live turtle that's threatened in Minnesota.
- **Invasives! (grades 5 through 8, spring and fall):** Learn about invasive plants and animals, then take part in restoring Wood Lake's diversity by removing buckthorn and/or other invasive plants.
- **Marsh explorers (grades K through 5, spring and fall):** Discover the incredible variety of animals, insects, and plants that live in the marsh. Dip into the marsh with a net and collection cup to explore this diverse wetland.
- **Marsh explorers advanced (grades 3 through 8, spring and fall):** Discover the incredible variety of animals, insects, and plants that live in the marsh. Dip into the marsh with a net and collection cup to explore this diverse wetland, then examine caught specimens with a video projection microscope.
- **Trees, leaves, and seeds (grades 1 through 4, spring and fall):** Discover how plants grow and learn about their

leaves and seeds. Collect seeds to find out how plants are able to spread without being able to move.

- **Water quality (grades 6 through 8, spring and fall):** Test the quality of water at Wood Lake with testing kits and an up-close look at living water quality indicators.
- **Weather and water cycle (grades 3 through 8, year-round):** Using infrared thermometers and anemometers, learn why we have weather and how to measure it, and see firsthand how the water cycle works.