Look for tracks, examine logs, run around, fly a kite, or canoe: explore Science Outdoors!

Science Outdoors exposes youth, ages 4 to 14, to different outdoor and science related activities. It is a unique opportunity to supplement your school’s science curricula and to reinforce science concepts taught in class with hands-on activities after school. Our goal is to share the benefits of outdoor place-based education with youth-serving organizations in our neighborhood.

WHY SCIENCE OUTDOORS?

We’re all about getting your kids outdoors!

Our science-based programs cover a range of environmental and science topics. On the other hand, increased lack of exposure to nature and outdoor time during childhood has had adverse effects on development, health, environmentally sound behavior and retention of science concepts.

Studies show that environment-based school programs not only significantly improve math and science scores, they increase cooperation and engagement in the classroom and an openness to conflict resolution.

At a time when physical education programs are being cut, the Center offers valuable kinesthetic learning opportunities including rock climbing, canoeing, biking, hiking, skiing and snowshoeing. We also strive to include the literacy skills of listening, speaking, writing, and reading into most of our programs.

Research shows that consistent contact with a piece of land throughout one’s childhood, coupled with a mentoring relationship with an interested adult results in respectful and responsible behavior toward the environment. Science Outdoors strives to bring the benefits of outdoor education to the children of Milwaukee!
Registration
Register by email: programs@urbanceologycenter.org or contact our Community Programs Department at least three weeks in advance. Tells us a about your group and what you program you are interested in.

Program Length & Location
Our programs are 1.5-2.5 hours in length, including transportation time (if transportation is needed and available). Have the program at your site, a nearby green-space or at one of the Urban Ecology Center branches.

Optimal Season
Most of the programs are suitable for any season. However, some programs are best taught during a specific time of year. Please look for the season information in the program’s description.

Group Size & Cost
Our first tier group size is up to 13 students. Second tier is 14-26 students. Larger groups may be accommodated at an additional cost.

<table>
<thead>
<tr>
<th>Number of students</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Up to 13 students</td>
<td>$80 per hour</td>
</tr>
<tr>
<td>14-26 students</td>
<td>$160 per hour</td>
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</table>

Transportation
Transportation can be provided for the field trips happening at the center. Our buses accommodate 14 passengers, and we are unable to transport students w/o an additional adult on each bus. We can guarantee transportation for up to 28 people (26 students and 2 adults). Unfortunately, our buses do not accommodate students in wheelchairs. Please contact us if your group needs an accessible bus and we’ll work with you to arrange transportation.

Chaperones
We require one adult from your organization for every 13 students or one for each bus. Chaperones help with discipline and assist the educator as needed (passing out supplies, taking a child to the bathroom, etc.) to ensure we can provide a quality experience for all students. Group Leader(s) and chaperone(s) are expected to be fully involved with the program.

Bathroom
While facilities are available, we strongly encourage groups to use their site facilities prior to the trip to allow optimum use of the time we have together.

Dress
All our programs have an outdoor component. Students, group leader, and chaperones should dress according to the weather. In inclement weather, outdoor activities may be shortened, but, unless the weather is severe we will still go outside. Please have students wear hats, gloves, boots and jackets in the winter and rain gear when needed. We keep a small supply of extra items, but it is best to borrow items from your site. We strongly recommend that children wear closed shoes (or other footwear appropriate for hiking) as well as clothes and shoes that can get dirty.

Students with Special Needs
Any of our programs can be modified for students with special needs. Please communicate any special needs with Center educators so that we can be prepared for your group. The Urban Ecology Center buildings and many trails are accessible for students who use wheelchairs.

Cancellation Policy
In the case of questionable weather, the Center will determine if the program should be canceled. We honor your site’s snow cancellation policy. If this should happen, you will receive a full refund. If for any other reason a trip needs to be canceled, our cancellation policy is as follows:

<table>
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<tr>
<th>Days before trip</th>
<th>Refund amount</th>
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<tbody>
<tr>
<td>31 days or more</td>
<td>Full refund</td>
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<tr>
<td>8-30 days</td>
<td>50% refund</td>
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<tr>
<td>0-7 days</td>
<td>No refund</td>
</tr>
</tbody>
</table>

Cold Weather Policy
Part of the program will take place outdoors, unless the temperature is below 0°F or there is a Wind Chill Advisory or Warning in effect. For the outdoor portion, we will provide cold-weather clothing to students who need it and adjust outdoor time depending on the temperature and wind chill to ensure all students are safe.

ON-SITE BOOKING & LOGISTICS

Virtual Booking & Logistics

Register
Register by email: programs@urbanceologycenter.org or contact our Community Programs Department at least two weeks before the program date.

Program Details
Our virtual programs include a 1-hour live program via Zoom within a 1.5 to 2 hour time frame. Connect with nature through hands-on activities, videos, interactive, and outdoor programs. Bilingual programming available.

Grades and Group Size
Programs are for K-8th grade. Smaller groups allow for more one on one interactions. Number of participants is flexible based on program size and accommodations.

Pricing
$50/hour of programing (includes pre-program materials and live program with UEC Educator).
Our programs are organized by topic and grade level to help you choose the best fits for your educational and recreational goals. See the charts on the next pages to explore how these programs align with Next Generation Science Standards (NGSS).

What’s NGSS?
The Next Generation Science Standards (NGSS), based on the Framework for K-12 Science Education, are intended to reflect a new vision for American science education, and indicate a shift toward a deeper, more student performance-centered science curriculum. The Urban Ecology Center is excited to have our programs aligned to these standards as well. See the appendix for a chart outlining which programs are aligned with which standards.

PLANTS & SOILS

Super Soil Science
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️
GRADES: K-8
What is soil? Why does it matter? What is matter? Let’s dig into a little soil science while learning about the cycle of matter and how we’re part of it too! We’ll look closer at soil and then try to speed up the process and make our own. Together we’ll bring the soil back outside where we’ll make some ephemeral art.

Here We Grow: Plant Basics
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️
GRADES: K-2
Take a closer look into the structure of the plants we see everyday. Search for different types of plants, learn what they need to survive, and the functions of their parts. Perhaps we’ll even plant some seeds of our own!

Artful Forest
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️
GRADES: K-8
Venture into the trees to discover nature’s patterns on leaves and become inspired to make your own unique art. What’s special about each tree and how can we tell them apart? Learn the basics of tree identification and then test your skills in the forest!

SCIENCE INQUIRY

Really Small Things
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-5
Join us on this big adventure, to learn about some of the smallest living things! Use a microscope to see into a world that lives on something as small as an ant. Feel like a giant while looking at plant cells or spider legs!

The Fun Forces of Physics
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: 1-8
Discover the world of forces, and how they relate to nature. No need to pull you into these activities, we’ll be learning the basics of physics through experiments, simple pulley systems and a special guest called gravity.

Sensational Seasons
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-3
From color changing leaves to falling snowflakes, come find out what makes our Wisconsin seasons SENSATIONAL by exploring changes through games and hands-on activities.

Science of Weather
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: 4-8
Plan to dance in the rain or shine, because we’ll be going through the many unexpected weather changes of Wisconsin, and learning how to expect them. Learn what makes weather and use measurement tools to collect weather data outside.

WATER

Pond/River Exploration
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️
GRADES: K-8
That’s right, we’re going underwater! There we’ll discover the always changing ecosystem that thrives in the freshwater. What do the organisms living in there tell us about the habitat? Look out for dragonfly larva, beetles, and maybe even a stick bug!

Aquatic Adventures
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-4
What animals live under water? Focusing on animal observation and adaptations, students will visit a nearby body of water and observe the animals that live there. Grow gills and get your webbed feet ready as you splash into your next adventure.

Wacky Water
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: 3-8
Water is essential to life on Earth! We’ll use scientific experiments and even games to learn about our watersheds and the properties of the water we drink. We’ll also discuss how water changes as it moves around.

EXPLORATION

Survival Challenge
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-8
We’re going into the green spaces, so bring your outdoor skills and critical thinking to endure the wilderness. Work together as teams to brainstorm scenarios and test your knowledge as you try to survive some of the many elements of nature.

Play in the Park
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-8
Explore a Milwaukee treasure by hiking through Riverside Park, Washington Park, or Three Bridges Park. Afterwards, we’ll loosen up with some field games and playful team building exercises. An easy day to connect with others and the natural world around you.

Mindfulness in Nature
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-8
Nature is a great place to explore your senses and surroundings. We’ll practice mindfulness techniques that can provide your students with the emotional insights needed for growth.

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Ecosystem Exploration
OPTIMAL SEASON(S) - ☀️ ☀️ ☀️ ☀️
GRADES: K-5
Animals come in all shapes and sizes, and therefore, need different things from their environments. Meet and discover the animals that live in all different kinds of ecosystems in our city and state. From prairie to pond, we’ll cover it all!
**Animals in Winter**

**OPTIMAL SEASON(S)**: ❄️
**GRADES**: K-2

As humans, we have a lot of different strategies to survive the winter, but what do animals do? Learn about all the amazing ways animals have learned to deal with the cold months, from building shelters to hiding food.

**Track the Pack**

**OPTIMAL SEASON(S)**: 🍂❄️
**GRADES**: K-2

Learn to decode the clues that animals leave behind as we learn different tracking techniques. We’ll look for signs of animal presence, learn animal-specific tracks and solve the mystery, piece by piece.

**Homes & Habitats**

**OPTIMAL SEASON(S)**: 🍂❄️
**GRADES**: K-5

Animals come in all shapes and sizes, and therefore, need different things from their environments. Meet and discover the animals that live in all different kinds of environments in our city and state. From prairie to pond, we’ll cover it all!

**Amazing Adaptations**

**OPTIMAL SEASON(S)**: 🍂❄️
**GRADES**: 2-8

Observe the special traits and adaptations that help animals survive where they live. Whether it’s hunting, soaring through the skies or swimming through the sea, animals have learned to change over time. Students will also have the opportunity to see and handle live animals from our Native Wisconsin Animal Room.

**Buzzing about Pollinators**

**OPTIMAL SEASON(S)**: 🍂
**GRADES**: K-3

Come see what all the buzz is about! Students will learn the process of pollination and identify common pollinators. Afterwards, they’ll mimic the process themselves through team-oriented games and activities.

**Incredible Insects**

**OPTIMAL SEASON(S)**: 🍂🔍
**GRADES**: 4-8

Have you ever seen an ant that flies? Or a spider that walks on water? There are so many insects and they’re all so different! Come learn with us what they have in common and what neat things they can do. Learn the basics of insect classification and collect and identify insects outside with us.

**MKE River Otters**

**OPTIMAL SEASON(S)**: 🍂🔍
**GRADES**: K-2

See who’s swimming about in the Milwaukee River! There are fish and critters but also river otters! Play like a river otter and learn about their funny and interesting antics through fun games and exploration.

**Owls are a Hoot**

**OPTIMAL SEASON(S)**: 🍂🔍
**GRADES**: 1-8

This program is sure to be a hoot! Learn about these amazing birds and their incredible adaptations and hunting skills while discovering what they had for dinner. We might even get to dissect a real owl pellet! Then we’ll get outside to see where an owl out of daylight might hide!

**Feathered Friends**

**OPTIMAL SEASON(S)**: 🍂🔍
**GRADES**: K-2

What feathered friends live in your city? Get to know what makes birds different from other animals, and explore the outdoors as we embark on a birding scavenger hunt. Let’s see how many feathered friends we can find outside using our binoculars and field guides.

**Brilliant Birds**

**OPTIMAL SEASON(S)**: 🍂🔍🔍🔍
**GRADES**: 3-6

Chirp, Squawk, Peep! Join us and the birds on this day of birding, learning bird calls and funny things different birds do! While we can hear their unique language chirping through the trees, what are they saying?

**Scaly & Slimy Friends**

**OPTIMAL SEASON(S)**: 🍂🔍🔍🔍
**GRADES**: 2-8

If you don’t find Amphibians “ribbiting” you sure will after this! Slither along with us to explore these salamanders, frogs, snakes, turtles and toads. Their slime and scales are “toadally” cool and each unique. Learn what we have in common with snakes and maybe touch one too!

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**Key**

- 🍂 = Spring
- 🍂 = Fall
- 🍂 = Summer
- 🍂 = Winter
- 🌟 = Virtual program available
CREATE A PROGRAM

Provide us with a topic, educational goal or Next Generation Science Standard and we will create a program for you! This option allows the Urban Ecology Center to offer programs directly related to what the students are studying in school. Send an email to programs@urbaneckologycenter.org for more info and to get started!

Key

- = Spring
- = Fall
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- = Winter

- = Virtual program available

URBAN ADVENTURES

Rock Climbing

OPTIMAL SEASON(S) -
GRADES: 2-8

Breathe in the fresh air and get a view of Riverside Park from the top of our outdoor rock wall! Learn climbing techniques and safety from our team of trained belayers as we cheer you on. Riverside Park only.

Paddling Adventure

OPTIMAL SEASON(S) -
GRADES: 5-8

Experience the Milwaukee River or the Washington Park Lagoon with a paddle in your hand! This is the perfect introduction into paddling as participants learn basic canoe skills while exploring a new ecosystem from a whole new angle. We will cover paddling techniques and waterfront safety, and then get out on the water for some fun. Canoeing or kayaking available. Washington and Riverside Park available. Note: Our safety police states that temperature of the water must be 60° for all water-related programs. The combined temperature of water and air must be 110° at the lagoons. Wind speed and other weather factors will also affect our decision to paddle.

Fishing

OPTIMAL SEASON(S) -
GRADES: 2-8

Join us on a new adventure as we explore what lives under water and learn the basics of fishing in a new and interactive way. Our educators will guide you through the basics and provide the equipment. Washington Park only.

Snowday

OPTIMAL SEASON
GRADES: K-8

Gear up for the weather and get ready to have fun in the snow as we build forts, go sledding, snowshoeing or cross country skiing. Not sure what to choose? No worries, leave it up to us! We’ll take care of the equipment and activities based on snow conditions. We’ll end our time with a warm cup of hot cocoa! Snow and ice conditions permitting. Snowshoeing and cross country skiing for 2nd grade and up.

Nature by Bike

OPTIMAL SEASON(S) -
GRADES: 5-8

Using the Center’s fleet of bicycles, we’ll explore areas along the trail as we search for wildlife and enjoy the breeze in the air. Learn basic bicycle and safety skills to take with you on your next group ride. All participants must be able to ride a bike, including chaperones.

CREATE A PROGRAM

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<th>Science and Engineering Practices</th>
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Use this chart to find which Crosscutting Concepts and Science and Engineering Practices apply to your chosen class. * = class available virtually.
QUESTIONS ABOUT SCIENCE OUTDOORS?

Send an email to programs@urbanecologycenter.org or contact any of our branches:

Riverside Park
1500 E. Park Place
Milwaukee, WI 53211
(414) 964-8505

Washington Park
1859 N. 40th Street
Milwaukee, WI 53208
(414) 344-5460

Menomonee Valley
3700 W. Pierce Street
Milwaukee, WI 53215
(414) 431-2940

www.urbanecologycenter.org