

Waukesha County Environmental Education School Guide

2019 - 2020 School Year



www.WaukeshaCounty.gov/EnvironmentalEd



Waukesha County, through its Department of Parks and Land Use, continues to foster the protection, wise use, enhancement, and enjoyment of the county's cultural and natural resources, and the health of its citizens. We have created a school guide of environmental education opportunities to help engage teachers, students and visitors in achieving this objective.

The environmental education opportunities presented in this school guide seek to:

- Increase the amount of material recycled from households and businesses to reduce taxpayer cost.
- Create opportunities for citizens to explore the outstanding natural resources in the Waukesha County Park System.
- Collaborate with School Districts in the county to offer a variety of science-based educational opportunities to meet curriculum requirements and to enhance the quality of life in the county.
- Protect and enhance the quality of the county's lakes and streams by informing citizens on how property management decisions impact water quality.
- Protect the quantity and quality of the groundwater resources in the county by promoting water conservation and groundwater infiltration.

I hope you take part in the opportunities available throughout this school guide and help us keep Waukesha County a great place to live, work and play.

Paul Farrow,

Waukesha County Executive

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Request a program at www.WaukeshaCounty.gov/EnvironmentalEd



RETZER NATURE CENTER

All programs are available at
Retzer Nature Center

S14 W28167 Madison Street, Waukesha, WI 53188

unless otherwise noted and subject to change without notice.

Policies & Fees

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

RETZER NATURE CENTER PROGRAMS

Experience your choice of programs in a single visit! Whether it is land, water, resource management or outer space, get double the experience in one place! Need help planning your field trip? Our staff is ready to help create a program package to suit your needs.

Advance booking is strongly encouraged. Payment is due no later than 21 days prior to the program date. If booking programs fewer than 21 days in advance, payment is due at the time of booking. Major credit card payments are accepted over the phone at 262-896-8007 or 262-548-7801.

Program Type	Duration	Rates	Number of students
Field Trip	1 hour	\$2.25 per student	10 minimum
Field Trip	1.5 hours	\$3.50 per student	10 minimum
Field Trip	2 hours	\$4.50 per student	10 minimum
At-School Program	1 hour	\$75.00 per program	30 maximum
At-School Program	1.5 hours	\$110.00 per program	30 maximum

Number of students	Number of required chaperones
10 students or fewer	2 chaperones
11-20 students	3 chaperones
21-30 students	4 chaperones

To view Retzer Nature Center's large group policy, visit www.waukeshacounty.gov/retzernaturecenter

Retzer Nature Center Cancellation Policy

If payment is not received at least 21 days in advance, the program will be cancelled. If you cancel a program within 21 days of the program date, we reserve the right to forfeit the program fee or issue a credit instead of a refund. Credit must be redeemed within one calendar year unless otherwise noted.

Policies & Fees

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

PLANETARIUM PROGRAMS

The Horwitz-DeRemer Planetarium serves as a resource of current trends in astronomy for students, teachers, and the community. The state-of-the-art, 90-seat, Digistar-6 planetarium features a new, high-definition laser projection system complete with surround sound. Planetarium presentations include a brief tour of the current evening sky and a feature program of your choice. To view planetarium show trailers, visit <https://sdw.waukesha.k12.wi.us/planetarium>.

All Planetarium shows can be booked in a combination with any program held at Retzer Nature Center. See Retzer Nature Center Policies and Fees on previous page.

Program Type	Base Rates	Additional Rates
Feature Program	\$42.00 up to 12 seats	\$3.50 per seat
Extended Visit (30-45 minutes) Add either: 1. Make & take astronomy project 2. Second "Feature" program	\$24.00 up to 12 student projects or seats	\$2.00 per student project or seat

One teacher or chaperone is admitted free per 25 students. Maximum of 90 seats per show.

Horwitz-DeRemer Planetarium Cancellation Policy

If payment is not received at least 21 days in advance, the program will be cancelled. If you cancel a program within 21 days of the program date, we reserve the right to forfeit the program fee or issue a credit instead of a refund. Credit must be redeemed within one calendar year unless otherwise noted.

UW - EXTENSION PROGRAMS

Program Type	Base Rates	Number of students
At-School Program	\$75.00 per 1 hour	Maximum of 30

RECYCLING PROGRAMS

Programs are free for qualified schools in Waukesha County. Other fees may apply. Minimum of 15 students required per program.

ENVIRONMENTAL HEALTH PROGRAMS

Programs are free for schools in Waukesha County.

WATER RESOURCES PROGRAMS

Programs are free for qualified schools in Waukesha County.

Grade 4K

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Animal Adaptations (indoor)

1 hour (1.5 hours with craft added)

Also available as an At-School Program

Enjoy a visit from Retzer Nature Center's teaching animals! See how an animal's physical and behavioral traits can help it to survive as we explore the concepts of habitat and adaptation. Add on a craft where students will create a critter with unique traits to illustrate how their critter will function and survive in its habitat.

Nature Discovery

1 hour (1.5 hours with nature collage added)

Add snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person.

Explore your senses while discovering the diversity in nature. Depending on the season, students may find themselves collecting colorful leaves during fall, smelling and touching plants in the Children's Garden, or snowshoeing in a winter wonderland. We will have an in-depth scavenger experience while hiking through the different habitats at Retzer Nature Center.



Nature Storytime Hike

Seasonal Program Offerings Below

1 hour (1.5 hours with craft added)

Also available as an At-School Program

This program focuses on reading and roaming! Teachers can select a seasonal program, then our naturalists will share a story and conduct an outdoor nature hike designed to complement the season and story.

Year Round Programs

Trees, Seeds, Nuts and Leaves

Life in a Shell (turtles, beetles, snails, eggs & nuts)

Things with Wings

Over and Under the Soil

Insect Investigation (At-School Only)

Fall Programs

Insect Investigation

Pond Adventure (30 students maximum)

Winter Programs

Add snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person.

Hibernation / Migration

Winter Tracks and Animal Signs

Spring Programs

Insect Investigation

Spring has Sprung

Pond Adventure (30 students maximum)



Grade 4K

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Recycling Programs

Composting: Wee Wiggly Worms

45 minutes at Retzer Nature Center

30 minutes at your school

Minimum of 15 participants required, maximum of 30

Examine nature's recyclers – worms! Discover how worm bodies work while they help nature and humans, too. Play a "feed the worm" game, jump like a jumping worm, and observe live worms with magnifiers. Read a fun poem about worms and take home your own "worm" to care for! Students will take an interactive exhibit tour when held at Retzer Nature Center.

Recycling: Recycle Raccoon and Friends

45 minutes at Retzer Nature Center

30 minutes at your school

Minimum of 15 participants required

What is a MRF? What is a landfill? Join us to learn about the 3 Rs, what to recycle, and where recyclables go. Meet Recycle Raccoon's recyclable friends who will share their story of what they will become when they are recycled! Students will take an interactive recycling exhibit tour when held at Retzer Nature Center.

UW-Extension Program

Dig Into Gardening, Nutrition & Reading

April - September

1 hour

Available At-School **only**

25 students maximum

Lessons can include horticulture activities, creating a small terrarium, reading garden-themed or nutrition-themed stories, and preparing a healthy snack. These options can be selected ala carte for a tailored program that can enhance core curriculum themes and lessons.

Planetarium Programs

One World, One Sky: Big Bird's Adventure

Recommended for grades 3K - 5K

45 minutes

Resource guide available

Program also available in Spanish

Explore the night sky with our friends from Sesame Street™. Join Big Bird, Elmo, and Hu Hu Zhu as they take a trip to the Moon. Learn how the Moon differs from Earth and how to find the Big Dipper and North Star.

Wilbear's Adventure

Recommended for grades 3K - 4K

45 minutes

Follow Wilbear, the Teddy Bear, as he wants to fly and discover flight. His grandpa uses demonstrations about the nature of flight to build up to the story of the Wright Brothers' historic first airplane experience. Grandpa Bear captivates audiences with tales of inventions over time, from kites and gliders to today's jet planes.

Grades K-1

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Animal Adaptations (indoor)

1 hour (1.5 hours with craft added)

Also available as an At-School Program

Enjoy a visit from Retzer Nature Center's teaching animals! See how an animal's physical and behavioral traits can help it to survive as we explore the concepts of habitat and adaptation. You can add on a craft where students will create a critter with unique traits to illustrate how their critter will function and survive in its habitat.

Insect Investigation

September - October & May - June

1.5 hours

Join the naturalists as we use sweep nets in the prairie, roll logs in the forest, and flip over rocks in search of insects. We will learn about adaptations that help insects survive in their habitats.

Nature Discovery

1 hour (1.5 hours with nature collage added)

Add snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person

Our natural world comes in many different sizes, shapes, colors, textures, smells, sounds and tastes. Explore your senses while discovering the diversity in nature. Depending on the season, students may find themselves collecting colorful leaves during fall, smelling and touching plants in the Children's Garden, or snowshoeing in a winter wonderland. We will have an in-depth scavenger experience while hiking through the different habitats at Retzer Nature Center.



Nature Storytime Hike

Seasonal program offerings below

1 hour (1.5 hours with craft added)

Also available as an At-School Program

This program focuses on reading and roaming! Teachers can select a seasonal program, then our naturalists will share a story and conduct an outdoor nature hike designed to complement the season and story.

Year Round Programs

Trees, Seeds, Nuts and Leaves

Life in a Shell (turtles, beetles, snails, eggs & nuts)

Things with Wings

Over and Under the Soil

Insect Investigation (At-School **only**)

Fall Programs

Insect Investigation

Pond Adventure (30 students maximum)

Winter Programs

Add snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person

Hibernation / Migration

Winter Tracks and Animal Signs

Spring Programs

Insect Investigation

Spring has Sprung

Pond Adventure (30 students maximum)

Pond Exploration

May - June

1.5 hours

30 students maximum

Explore the Retzer Pond and meet cool creatures who call the pond muck home. Learn about the adaptations and features they possess to live in this watery world.

Grades K-1

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Recycling Programs

Composting: Wiggle with Worms

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Discover how worms and other decomposers are nature's recyclers! Like us, worms need natural resources to survive. Find out what natural resources they need by playing a "feed the worm" game. Observe live worm behavior and anatomy with magnifiers, along with some of their fellow decomposers from the worm bin. When held at Retzer Environmental Learning Center, students will learn what it means to close the composting loop during our interactive exhibit tour!

Papermaking

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Where does paper go after putting it in the recycling cart and how does it get recycled into new paper? Learn the process and then make paper using techniques similar to a paper mill. Students will create their own paper shape to take home. When held at Retzer Environmental Learning Center, students will learn what it means to close the paper recycling loop during our interactive exhibit tour!



Environmental Health Program

Animal Bite Prevention

50 minutes

At-School Program **only**

Find out about animal awareness, animal body language, and making wise choices while interacting with animals. Electricity and a clear wall for projection are required for this program.

Recycling Assembly

45 minutes

At-School Program **only**

For multiple grades or groups of 75 or more

Our high-energy recycling assembly is sure to rev up your students to recycle more and to recycle right! Students take part in a lively recycling relay race along with an interactive presentation. Learn what to recycle, where recyclables go, and what recyclables become. Learn how your actions matter!

Optional: A visit from our Recycle Raccoon Mascot.

Recycling: Your Actions Matter

1 hour at Retzer Nature Center

30 minutes at your school

Minimum of 15 participants required

Learn how your actions matter by exploring the 3Rs, what to recycle, where recyclables go, and what recyclables become. When held at Retzer Environmental Learning Center, students will learn what it means to close the recycling loop during our interactive exhibit tour! In the exhibit space, students will visit the eco-house, load recyclables into the truck, operate the mini-recycling facility, deliver recyclables to re-manufacturers, and discover how they become new products ready for store shelves.

Grades K-1

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

UW-Extension Program

Dig Into Gardening, Nutrition & Reading

April - September

1 hour

At-School Program only

25 students maximum

Lessons can include horticulture activities, creating a small terrarium, reading garden-themed or nutrition-themed stories, and preparing a healthy snack. These options can be selected ala carte for a tailored program that can enhance core curriculum themes and lessons.

Planetarium Programs

One World, One Sky: Big Bird's Adventure

Recommended for grades 3K - 5K

45 minutes

Resource guide available

Program also available in Spanish

Explore the night sky with our friends from Sesame Street™. Join Big Bird, Elmo, and Hu Hu Zhu as they take a trip to the Moon. Learn how the Moon differs from Earth and how to find the Big Dipper and North Star.

Our Place in Space

Recommended for grades 5K - 2

1 hour

Resource guide available

This award-winning children's planetarium show introduces jungle animals and a space crossword puzzle to explore the wonders of the universe. This program will inspire your young astronomer to appreciate the beauty of the night sky.

Rusty Rocket's Last Blast

Recommended for grades 1 - 3

1 hour

Resource guide available

After decades of teaching the basics of rocket physics, Rusty Rocket has decided this will be his last blast. Still, there is one final mission to command: an introductory tour of the solar system for a new class of rocket rookies, focusing on the wide variety of planetary environments. He also emphasizes the immense distances between the planets and using cats and jets for comparison.

The Little Star that Could

Recommended for grades 5K - 2

1 hour

Resource guide available

Program also available in Spanish

This is a story about Little Star, an average yellow star in search of planets of his own to protect and warm. Along the way, he meets other stars, learns what makes each star special, and discovers that stars combine to form star clusters and galaxies. Eventually, Little Star finds his planets and learns that being average can also be very special.

Secret of the Cardboard Rocket

Recommended for grades 1 - 3

1 hour

Resource guide available

Join two children on a magical journey through the Solar System, aided by a talking astronomy book, a cardboard rocket, and a vivid imagination. During this imaginative show, audiences will land on Venus, fly through the rings of Saturn, and discover the secrets of the Solar System.



A W A R D - W I N N I N G INTERACTIVE EXHIBIT SPACE!

ENGAGE WITH RECYCLING, WATER RESOURCES, AND COMPOSTING EXHIBITS AT RETZER NATURE CENTER!



Grades 2-3

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Animal Adaptations (indoor)

1 hour (1.5 hours with craft added)

Also available as an At-School Program

Enjoy a visit from the Retzer teaching animals! See how an animal's physical and behavioral traits can help it to survive as we explore the concepts of habitat and adaptation. Add on a craft where students create a critter with unique traits to illustrate how it will function and survive in its habitat.

Animal Classification

1.5 hours

Using observation skills and inquiry on a group exploration, students will cultivate their curiosity while hiking the trails of Retzer. Students will discuss organisms' different life cycles as well as what they have in common. We will discuss how to classify an animal by relating it to its habitat (ecosystem) and its unique physical and behavioral traits.

Avian Adventure

1.5 hours (2 hours with owl pellet dissection – add \$3 / pellet)

Also available as an At-School Program

Discover these feathered flyers from head to tail as we examine their adaptations and unique habits. A visit from our teaching bird and hands-on objects will assist in this exploration. Join our naturalists as we search for evidence of birds in their habitats.

Home Sweet Habitat

1.5 hours

Explore wildlife habitats from the viewpoint of the animals that live there. Compare and contrast the different habitats observed. Students will play the role of an animal as they go in search of their animal's basic survival needs for food, water, shelter, and space. Decide which animal would call a given location home, and discover how they are connected to other aspects of their ecosystem.

Insect Investigation

September - October & May - June

1.5 hours

Also available as an At-School Program year-round

Join the naturalists as we use sweep nets in the prairie, roll logs in the forest, and flip over rocks in search of insects. We will investigate their many adaptations that help support their survival, growth, behavior and reproduction. We will discuss their important roles in the environment, such as pollination.

Migration/Hibernation

September - March

1.5 hours

Add snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person.

Hit the trails at Retzer to see which animals stay, sleep or leave during winter. Learn about their special adaptations and strategies that help them to survive and search for their various forms of shelter and food sources. Fall will focus on departure and preparation; spring will focus on arrival and awakening.

Nature Exploration

1 hour (1.5 hours with nature collage added)

Add snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person.

Using our powers of observation and sensory skills, we will have an in-depth, outdoor scavenger experience collecting the natural treasures of the season. Naturalists will modify the exploration according to the season and may cover a sampling of the following topics: animal habitats, plant/tree/animal identification, plant and animal adaptations, food chain, and predator-prey interactions.

Plant Adaptations

1.5 hours

Explore the diverse ecosystems at Retzer and understand how the seasons, varied soils, photosynthesis and seed dispersal affect these unique plant communities. Make observations, learn how to identify key plants and examine how they interact in those systems. Compare and contrast what they need to survive, grow and reproduce successfully in their habitat.

Grades 2-3

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Plants and Pollinators

September – October & May - June

1.5 hours

Come explore what is buzzing around the blooms at Retzer Nature Center! Investigate the relationship between plants and the animals that contribute to the process of pollination. An educational but fun role-play acting out these "jobs", help students to understand this natural but complicated and very necessary procedure. Find out what "buzz pollination" is all about. Hike the trails looking for what is in bloom and observe the pollinators in action.

Pond Exploration

May - June

1.5 hours

30 students maximum

Scoop up a net full of pond muck and pick your way through to discover the unusual and extraordinary ecosystem that is full of life. Learn about the adaptations and features that pond organisms possess to live in this watery world.

The Weather Machine

1.5 hours

Discover the basics of the Earth's "Weather Machine" – air, water, land and ice. We'll learn how the global weather machine is responsible for Wisconsin's climate and compare our climate to different regions of the world. We'll also head outside to the Retzer trails to measure current weather conditions and make predictions about our weather based on the seasons.

Winter Tracks and Animal Signs

December - March

1.5 hours

2 hours with snowshoes (weather dependent) for adults and up to 30 students for \$2.75 / person

Animals leave behind a number of clues for us to find as we explore our winter world. Start indoors with a presentation on animal tracks and evidence of their adventures, and then head outdoors to hunt for some of these winter clues.

Recycling Programs

Composting: Working with Worms

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Observe and examine nature's recyclers – worms! Discover the natural resources that are critical for worms and other decomposers to make compost. Students will observe and assess worm anatomy, behavior, and castings with the aid of magnifiers while also locating worm eggs and other decomposers that share their home and job duties. When held at Retzer Environmental Learning Center, students will learn what it means to close the composting loop during our interactive exhibit tour!

Papermaking

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Where does paper go after putting it in the recycling cart and how does it get recycled into new paper? Learn the process and then make paper using techniques similar to a paper mill. Students will create their own paper shape to take home. When held at Retzer Environmental Learning Center, students will learn what it means to close the paper recycling loop during our interactive exhibit tour!

Grades 2-3

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Recycling Programs

Recycling Assembly

45 minutes

At-School Program **only**

For multiple grades or groups of 75 or more

Our high-energy recycling assembly is sure to rev up your students to recycle more and to recycle right! Students take part in a lively recycling relay race along with an interactive presentation. Learn what to recycle, where recyclables go, and what recyclables become. Learn how your actions matter!

Optional: A visit from our Recycle Raccoon Mascot.

Recycling: Your Actions Matter

1 hour at Retzer Nature Center

30 minutes at your school

Minimum of 15 participants required

Learn how your actions matter by exploring the 3 Rs, what to recycle, where recyclables go, and what recyclables become. When held at Retzer Environmental Learning Center, students will learn what it means to close the recycling loop during our interactive exhibit tour! In the exhibit space, students will visit the eco-house, load recyclables into the truck, operate the mini-recycling facility, deliver recyclables to re-manufacturers, and discover how they become new products ready for store shelves.

Water Resources Programs

Crystal's Clean Water Adventure

45 minutes at Retzer Nature Center **only**

Maximum of 30 participants

Join Crystal, the clean water drop, on an adventure to learn how the things we do at our homes can pollute our lakes and streams through runoff. Learn what creatures live in our waters and how pollution affects them. Students will understand how their actions matter for clean water.

Get the Groundwater Picture

45 minutes at Retzer Nature Center

30 minutes at your school

Maximum of 30 participants

Using a groundwater model, see how a well works and how our lakes and streams rely on groundwater to maintain their water levels. Discover how groundwater moves and how this naturally cleaned water supplies drinking water for people. Learn the importance of protecting and conserving our groundwater resources.

I Live In A Watershed

1 hour at Retzer Nature Center

45 minutes at your school

Maximum of 30 participants

Our watershed model provides a hands-on, interactive demonstration of the sources and effects of runoff pollution. Students will learn about the watershed they live in and see how it connects...all the way to the ocean! By the end of this program, students will understand what a watershed is, how it functions and how they are part of it.

Healthy Soils through Composting

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Join us to explore the importance of healthy soil. View a real soil profile, understand how soil is formed, and discover the important role of organic matter. Conduct an erosion experiment and observe live compost microorganisms. Learn how to put your food waste to use through the simple act of composting and improve soil health. When held at Retzer Environmental Learning Center, students will learn what it means to close the composting loop during our interactive exhibit tour!

Grades 2-3

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Water Resources Programs

Water Resources Assembly

45 minutes

At-School Program **only**

For multiple grades or large groups of 75 or more

Gain a better understanding of water in this interactive power point program. Learn where drinking water comes from and where it goes after we are done with it. Discover the difference between storm sewer and sanitary sewer. Students will learn what actions they can take to protect our water resources from runoff pollution.

Environmental Health Program

Animal Bite Prevention

50 minutes

At-School Program **only**

Find out about animal awareness, animal body language, and making wise choices while interacting with animals.

Electricity and a clear wall for projection are required for this program.



Grades 2-3

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Planetarium Programs

Did an Asteroid Really Kill the Dinosaurs?

Recommended for grades 3 - 5

1 hour

This amazing program explores the possibility that an asteroid may have caused the extinction of the dinosaurs. Realistic and scientifically-accurate computer generated animations bring dinosaurs back to life in a big way! Join us for this fantastic journey back in time when dinosaurs roamed the earth.

Our Place in Space

Recommended for grades 5K - 2

1 hour

Resource guide available

This award-winning children's planetarium show introduces jungle animals and a space crossword puzzle to explore the wonders of the universe. This program will inspire your young astronomer to appreciate the beauty of the night sky.

Rusty Rocket's Last Blast

Recommended for grades 1 - 3

1 hour

Resource guide available

After decades of teaching the basics of rocket physics, Rusty Rocket, has decided this will be his last blast, and he already has plans for how he will spend his free time. Still there is one final mission to command: an introductory tour of the solar system for a new class of rocket rookies focusing on the wide variety of planetary environments. Along the way, we learn Rusty is related to every famous spacecraft to explore the solar system. He also emphasizes the immense distances between the planets and using cats and jets for comparison.

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Recommended for grades 5K - 2

1 hour

Resource guide available

Program also available in Spanish

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Grades 4-5

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Retzer Nature Center Programs

Animal Adaptations (indoor)

1 hour (1.5 hours with craft added)

Also available as an At-School Program

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1.5 hours

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Avian Adventure

1.5 hours (2 hours with owl pellet dissection – \$3 / pellet)

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Home Sweet Habitat

1.5 hours

Explore wildlife habitats from the viewpoint of the animals that live there. Compare and contrast the different habitats observed. Students will play the role of an animal as they go in search of their animal's basic survival needs for food, water, shelter, and space. Decide which animal would call a given location home, and discover how they are connected to other aspects of their ecosystem.

Insect Investigation

September - October & May - June

1.5 hours

Also available as an At-School Program year-round

Join the naturalists as we use sweep nets in the prairie, roll logs in the forest, and flip over rocks in search of insects. We will investigate their many adaptations that help support their survival, growth, behavior and reproduction. We will discuss their important roles in the environment, such as pollination.

Migration/Hibernation

September - March

1.5 hours

Hit the trails to see who you can find. Find out which animals at Retzer stay, sleep or leave during winter. Learn about their special adaptations and strategies that help them to survive and search for their various forms of shelter and food sources. Fall will focus on departure and preparation; spring will focus on arrival and awakening.

Nature Exploration

1 hour (1.5 hours with nature collage added)

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Pond Exploration

May - June

1.5 hours

30 students maximum

Scoop up a net full of pond muck and pick your way through to discover the unusual and extraordinary ecosystem that is full of life. Students investigate pond ecology through interactive observation, temperature readings, and an in-depth study of aquatic organisms.

Grades 4-5

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Plant Adaptations: Over and Under the Soil

1.5 hours

Explore the diverse ecosystems at Retzer and understand how the seasons, varied soils, photosynthesis and seed dispersal affect these unique plant communities. Make observations and learn how to identify key plants and examine how they interact in those systems. Compare and contrast what they need to survive, grow and reproduce successfully in their habitat.

Plants and Pollinators

September - October & May - June

1.5 hours

Come explore what is buzzing around the blooms at Retzer Nature Center! Investigate the relationship between plants and the animals that contribute to the process of pollination. An educational but fun role play acting out these "jobs" help students to understand this natural but complicated and very necessary procedure. Find out what "buzz pollination" is all about. Hike the trails looking for what is in bloom and observe the pollinators in action.

Renewable Energy

1.5 hours

Discover how energy from the earth can be used to help heat and cool our homes and buildings. We will discuss renewable energy including solar, wind, water, and geothermal. Included in our hike will be a brief tour of Retzer's geothermal system and eco-house solar panel. We will capture the energy from the sun to make a solar print.

Understanding the Glacial Landscape

1.5 hours

Learn to read the glacial landscape of Retzer and recognize the importance of the glaciers to our region. Students will investigate different glacial landforms and how they were created. A comparison of ice age flora and fauna to that of today's world will be explored.

Winter Tracks and Animal Signs

December - March

1.5 hours

2 hours with snowshoes (weather dependent) for \$2.75 / student

Animals leave behind a number of clues for us to find as we explore our winter world. Start indoors with a presentation on animal tracks and evidence of their adventures, and then head outdoors to hunt for some of these winter clues.



Grades 4-5

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Recycling Programs

Composting: Working with Worms

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Observe and examine nature's recyclers – worms! Discover the natural resources that are critical for worms and other decomposers to make compost. Students will observe and assess worm anatomy, behavior, and castings with the aid of magnifiers while also locating worm eggs and other decomposers that share their home and job duties. When held at Retzer Environmental Learning Center, students will learn what it means to close the composting loop during our interactive exhibit tour!

Papermaking

1 hour at Retzer Nature Center

45 minutes at your school

Minimum of 15 participants required, maximum of 30

Where does paper go after putting it in the recycling cart and how does it get recycled into new paper? Learn the process and then make paper using techniques similar to a paper mill. Students will create their own paper shape to take home. When held at Retzer Environmental Learning Center, students will learn what it means to close the paper recycling loop during our interactive exhibit tour!

Recycling Assembly

45 minutes

At-School Program **only**

For multiple grades or large groups of 75 or more

Our high-energy recycling assembly is sure to rev up your students to recycle more and to recycle right! Students take part in a lively recycling relay race along with an interactive presentation. Learn what to recycle, where recyclables go, and what recyclables become. Learn how your actions matter!

Optional: A visit from our Recycle Raccoon Mascot.

Recycling: Close the Loop

1 hour at Retzer Nature Center

30 minutes at your school

Minimum of 15 participants required

Learn how your actions matter by recycling right. Discover how recycling impacts Wisconsin's natural resources and economy. When held at Retzer Environmental Learning Center, students will learn what it means to close the recycling loop during our interactive exhibit tour! In the exhibit space, students will visit the eco-house, load recyclables into the truck, operate the mini-recycling facility, deliver recyclables to remanufacturers, and discover how they become new products ready for store shelves.

Recycling: Facility Tour

1.5 hours

Location: City of Milwaukee/Waukesha County Materials Recovery Facility (MRF) – 1401 W. Mount Vernon Ave., Milwaukee

For grade 5 and up **only**

Observe the fascinating combination of physics, technology, and people sorting and baling mixed recyclables before heading to the mills to be made into new products. Learn the details of what can be recycled, why some things cannot, what companies buy each commodity, and what they will become.



Grades 4-5

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Water Resources Programs

Crystal's Clean Water Adventure

45 minutes at Retzer Nature Center **only**
Maximum of 30 participants

Join Crystal, the clean water drop, on an adventure to learn how the things we do at our homes can pollute our lakes and streams through runoff. Learn what creatures live in our waters and how pollution affects them. Students will understand how their actions matter for clean water.

Get the Groundwater Picture

45 minutes at Retzer Nature Center
30 minutes at your school
Maximum of 30 participants

Using a groundwater model, see how a well works and how our lakes and streams rely on groundwater to maintain their water levels. Discover how groundwater moves and how this naturally cleaned water supplies drinking water for people. Learn the importance of protecting and conserving our groundwater resource.

I Live In A Watershed

1 hour at Retzer Nature Center
45 minutes at your school
Maximum of 30 participants

Our watershed model provides a hands-on, interactive demonstration of the sources and effects of runoff pollution. Students will learn about the watershed they live in and see how it connects...all the way to the ocean! By the end of this program, students will understand what a watershed is, how it functions and how they are part of it.

Healthy Soils through Composting

1 hour at Retzer Nature Center
45 minutes at your school

Minimum of 15 participants required, maximum of 30
Join us to explore the importance of healthy soil. View a real soil profile, understand how soil is formed, and discover the important role of organic matter. Conduct an erosion experiment and observe live compost microorganisms. Learn how to put your food waste to use through the simple act of composting and improve soil health. When held at Retzer Environmental Learning Center, students will learn what it means to close the composting loop during our interactive exhibit tour!

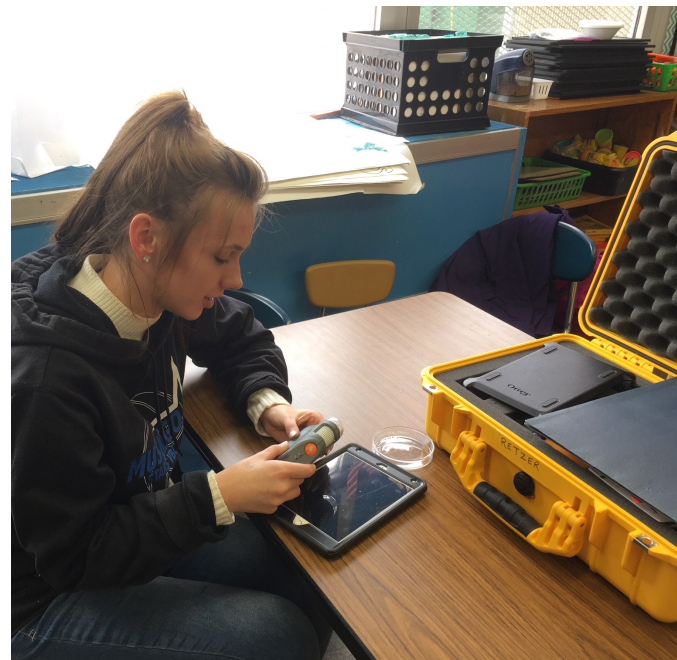
Water Resources Assembly

45 minutes

At-School Program **only**

For multiple grades or groups of 75 or more

Gain a better understanding of water in this interactive power point program. Learn where drinking water comes from and where it goes after we are done with it. Discover the difference between storm sewer and sanitary sewer. Students will learn what actions they can take to protect our water resources from runoff pollution.



Grades 4-5

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Environmental Health Programs

Animal Bite Prevention

50 minutes

At-School Program **only**

Find out about animal awareness, animal body language, and making wise choices while interacting with animals. Electricity and a clear wall for projection are required for this program.

Drinking Water

30 - 60 minutes

At-School Program **only**

Learn about where you get your water, what can be harmful in the water, and how to eliminate the dangers. Also, find out what to search for at home to keep your water safe.

Food Safety

30 - 60 minutes

At-School Program **only**

Become aware of food safety and the consequences of mishandling food. Hand washing emphasized and interactive activities are available.

Humane Animal Careers

25 minutes

At-School Program **only**

Explore various careers that involve animals and the preparation required for each career. Electricity and a clear wall for projection are required for this program.

Humane Animal Education

50 minutes

At-School Program **only**

Learn the legal definitions of humane and cruel behavior as they relate to animals. Specific case studies show how humane officers apply the laws. Electricity and a clear wall for projection are required for this program.

Planetarium Programs

A Teenager's Guide to the Galaxy

Recommended for grades 5 - 8

1 hour

Created and hosted by cosmically curious teenagers from Milwaukee schools, this unique cosmic experience takes you on a dynamic journey across the universe and through time. Science Topics Include: Black Holes, Cosmology--Origins & Fate of the Universe, Star Cycles, Sun, Earth Origins & History, Water Origins & Chemistry

Defying Gravity

Recommended for grades 4 - 6

1 hour

Defying Gravity, it really is "rocket science!" This program explores and engages audiences in the basic science of rocket flight. Visitors explore Newton's laws of motion, rockets, roller coasters and even a Zero-G airplane ride!

Did an Asteroid Really Kill the Dinosaurs?

Recommended for grades 3 - 5

1 hour

This amazing program explores the possibility that an asteroid may have caused the extinction of the dinosaurs. Realistic and scientifically-accurate computer generated animations bring dinosaurs back to life in a big way! Join us for this fantastic journey back in time when dinosaurs roamed the earth.

Grades 4-5

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Planetarium Programs

Nine Planets and Counting

Recommended for grades 4 - 5

1 hour

Resource guide available

How many planets are in the Solar System? This program involves a tour to explore the variety of objects that populate our Solar System. Along the way, each planet is examined as well as other objects in our solar neighborhood. This show was produced just before Pluto was demoted to dwarf planet status.

Sky Wars: Battles of Discovery

1 hour

Explore epic battles of change in the sky above us. Follow the struggles, as new discoveries alter our view of Earth and its place in the universe. Witness the connections, and conflicts, between astronomy and astrology. And lastly, voyage into the galaxy to glimpse how future discoveries might start new battles about the sky above!

Solar System Show

Recommended for grades 4 - 5

1 hour

Looking to explore way out worlds? Join us as our delightful students present their spectacular show about the sun, moon, and planets. Climb aboard as we land on sand dunes of Mars, zoom in on the red spot of Jupiter, and fly through the rings of Saturn.

Star Signs

Recommended for grades 5 - 8

1 hour

The astrological signs take their names from the star patterns people found long ago in a sky they considered sacred and influential in the affairs of Earth. Although we see things differently today, we can still go outside and find these patterns in a sky filled with signs and stories of our own making. And those stars can still guide us, not from the the pages of a newspaper, but in real ways that can link us with the past and lead us to the stars.

Sunstruck

Recommended for grades 4 - 8

1 hour

Resource guide available

Travel back to the beginning of time and experience the birth of the sun. Discover how it came to support life, how it threatens life as we know it, and how its energy will one day fade away. Audiences will gain an enhanced understanding of the Sun and how it impacts the world.

The Stargazer

Recommended for grades 4 - 6

1 hour

Nichelle Nichols (Lt. Uhura of the television series, STAR TREK) narrates this fascinating program about stars. "Stargazer" traces the life experiences of astronomy professor Dr. James Kaler. From childhood to adult, his love for the sky shows us all that there is a "human" connection to the stars.

Two Small Pieces of Glass

Recommended for grades 4 - 8

1 hour

Resource guide available

Program also available in Spanish

This program celebrates 400 years since Galileo first pointed his telescope at the sky. Don't miss this fascinating look at the incredible contributions to astronomy made by Galileo and the world's greatest telescopes.



Grades 6-8

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Amazing Renewable Energy

2.5 hours

Retzer Nature Center and Planetarium fees apply

This program is all about understanding energy and how we all can minimize negative environmental impact using alternative forms of energy. We will learn about energy sources and compare fossil fuel energy and renewable energy - solar, wind, water, and geothermal. We will discover how energy from the earth can be used to help heat and cool our homes and buildings and observe Retzer's eco-house solar panel to learn how sun is captured to create energy. We will capture the energy from the sun to make a solar print. We will explore how recycling and consumer choices save energy and try Retzer's energy bike to demonstrate the amount of energy used by different types of light bulbs. Finally, we will see the Planetarium show Dynamic Earth that explores the inner workings of Earth's climate system.

Colors in Nature

May - June & September - October

2.5 hours

Retzer Nature Center and Planetarium fees apply

This field experience is designed to last a half day with students participating in two rotations. In one rotation, students will participate in a Color Scavenger Hunt focusing on pollinators/ bees and other important colors in nature related to survival. The second rotation is a planetarium visit to see the show Cosmic Colors: An Adventure Along the Spectrum.



Forest Ecology

1.5 hours

Through this interactive program, students will learn how to recognize and describe characteristics that differentiate trees. Students will hike through the forest and oak savanna habitats and identify a variety of Wisconsin trees using a dichotomous key. Emphasis will be on the immense value trees bring to our ecosystem.

Invasive Species in our Ecosystems

1.5 hours

Students will learn about invasive species threatening the ecosystems of Southern Wisconsin and specifically the challenges these species present at Retzer Nature Center. Identification of plant and animal invasive species, their origins, and their control methods will be discussed. This program will provide training for invasive species identification and management that may be applied at Retzer during the course of the program, or taken back to your school.

Plants and Pollinators

May - June & September - October

1.5 hours

Come explore what is buzzing around the blooms at Retzer Nature Center! Investigate the relationship between plants and the animals that contribute to the process of pollination. An educational but fun role play acting out these "jobs", help students to understand this natural but complicated and very necessary procedure. Find out what "buzz pollination" is all about. Hike the trails looking for what is in bloom and observe the pollinators in action.

Grades 6-8

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Survival in the Prairie

2 hours

Students will have the opportunity to observe the differences in four distinct ecosystems - prairie, field, pine plantation, and forest and make connections to the adaptations that have taken place over time. Students will diagram the prairie and forest life cycles, explore tree bark thickness and compare biomass diagrams of different ecosystems.

Winter Tracking and Animal Signs

December - March

1.5 hours

2 hours, add snowshoes (weather dependent) for \$2.75 / student

Animals leave behind a number of clues for us to find as we explore our winter world. Start indoors with a presentation on animal tracks and evidence of their adventures, and then head outdoors to hunt for some of these winter clues.



Understanding the Glacial Landscape

1.5 hours

Learn to read the glacial landscape of Retzer and recognize the importance of the glaciers to our region. Students will investigate different glacial landforms and how they were created. We will compare differences in ice age flora and fauna to that of today's world.

Recycling Programs

Recycling: Facility Tour

1.5 hours

Location: City of Milwaukee/Waukesha County Materials Recovery Facility (MRF) – 1401 W. Mount Vernon Ave., Milwaukee

Observe the fascinating combination of physics, technology, and people sorting and baling mixed recyclables before heading to the mills to be made into new products. Learn the details of what can be recycled, why some things cannot, what companies buy each commodity, and what they will become.

Water Resources Programs

Get the Groundwater Picture

1 hour at Retzer Nature Center

45 minutes at your school

Using a groundwater model, see how a well works and how our lakes and streams rely on groundwater to maintain their water levels. Discover how groundwater moves and how this naturally cleaned water supplies drinking water for people. Learn the importance of protecting and conserving our groundwater resource.

I Live In A Watershed

1 hour at Retzer Nature Center

45 minutes at your school

Maximum of 30 participants

Our watershed model provides a hands-on, interactive demonstration of the sources and effects of runoff pollution. Students will learn about the watershed they live in and see how it connects...all the way to the ocean! By the end of this program, students will understand what a watershed is, how it functions and how they are part of it.

Grades 6-8

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Water Resources Programs

Monitoring for Water Quality

1.5 hours

Location: At your school stream/pond or other local stream

Maximum of 30 participants

Students will measure turbidity, dissolved oxygen and temperature at the stream and discuss the importance of each. Then students will collect macroinvertebrates and calculate a biotic index. These basic measurements will give insight into the water quality of the stream.

Soils—Sand, Silt and Clay

1 hour at Retzer Nature Center

45 minutes at your school

Maximum of 30 participants

View a soil profile and learn about soil layers and their formation. Discuss the differences in particle size of sand, silt and clay. Then get your hands dirty by texturing soil samples to feel the difference. Classify each sample using a textural triangle.



Environmental Health Programs

Drinking Water

30 - 60 minutes

At-School Program **only**

Learn about where you get your water, what can be harmful in the water, and how to eliminate the dangers. Also, find out what to search for at home to keep your water safe.

Food Safety

30 - 60 minutes

At-School Program **only**

Become aware of food safety and the consequences of mishandling food. Hand washing emphasized and interactive activities are available.

Water Resources Assembly

45 minutes

At-School Program **only**

For multiple grades or groups of 75 or more

Gain a better understanding of water in this interactive power point program. Learn where drinking water comes from and where it goes after we are done with it. Discover the difference between storm sewer and sanitary sewer. Students will learn what actions they can take to protect our water resources from runoff pollution.

Humane Animal Careers

25 minutes

At-School Program **only**

Explore various careers that involve animals and the preparation required for each career. Electricity and a clear wall for projection are required for this program.

Humane Animal Education

50 minutes

At-School Program **only**

Learn the legal definitions of humane and cruel behaviors as they relate to animals. Specific case studies show how humane officers apply the laws. Electricity and a clear wall for projection are required for this program.

Grades 6-8

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Planetarium Programs

CapCom Go: The Apollo Story

Recommended for grades 6 - 12

1 hour

An immersive, historical documentary that showcases the achievements of the Apollo program and what it took to put the first human on the Moon. It introduces a new generation to the immense challenges they overcame and will inspire them to become the explorers, designers, engineers, thinkers and dreamers of the future.

Cosmic Colors: An Adventure Along the Spectrum

1 hour

Discover why the sky is blue, Mars is red and why things appear the colors they do. Then step into the invisible universe to investigate the electromagnetic energy all around us, from radio waves to gamma rays.

Cosmic Recipe: Setting the Periodic Table

1 hour

The famous astronomer Carl Sagan once said: "If you wish to make an apple pie from scratch, you must first invent the universe." See how tiny atoms relate to the mammoth stars. Connect the worlds of the small and large in this engaging and beautiful show. Bring the whole family!

Galileo: The Power of the Telescope

Recommended for grades 6 - 12

1 hour

This beautiful and historic program, produced by the Daniel Soref Planetarium at the Milwaukee Public Museum celebrates 400 years of telescope viewing. The program also examines the fascinating life and scientific accomplishments of Galileo.

Mayan Archaeoastronomy: Observers of the Universe

Recommended for grades 5 - 12

1 hour

Program also available in Spanish

Join us as we learn how the Mayan temples were actually observatories that were critical to the lives of the Mayan civilization. The stars and planets became their calendar for floods, feasts, and wars. The messages they read in the stars guided all aspects of their lives. The show takes viewers on a tour of 6 Mayan temples – San Gervasio, Chichen Itzá, Uxmal, Edzná, Palenque and Bonampak – where the spectator dives into a Mayan world of knowledge about the importance of the orientations of its temples in relation to the movement of some stars like our sun, our moon and Venus.

Mexica Archaeoastronomy: Between Space and Time

Recommended for grades 5 - 12

1 hour

Program also available in Spanish

This feature illustrates the important role played by astronomical observation for the evolution of pre-Hispanic cultures in central Mexico. They used the calendrical and astronomical knowledge inherited by the predecessor cultures to find the capital of their empire: Tenochtitlan. Vibrant colors, shapes and sounds transport the viewer to one of the most important cultures in Mesoamerica.

Our Violent Planet

Recommended for grades 6 - 12

1 hour

Our Violent Planet is a full dome show that features some of the most catastrophic natural events our world will ever occur. We live out our lives on our planet's fractured crust "plates" that pull apart, collide, grind past each other, and even sink below one another, producing violent earthquakes, volcanic eruptions, and catastrophic walls of water known as tsunamis.

Grades 6-8

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Planetarium Programs

Out There: The Quest for Extrasolar Worlds

Recommended for grades 6 - 12

1 hour

For thousands of years, mankind thought that the Earth was the center of the Universe. Thanks to our curiosity, imagination and urge to explore, we now know that planets like our Earth are nothing special in the cosmos. The Sun is just one ordinary star among hundreds of billions in our galaxy, the Milky Way. With the world's most powerful telescopes, we are able to explore more and more of the Universe. A huge diversity of different worlds is out there, just waiting to be discovered.

Sky Wars: Battles of Discovery

1 hour

Explore epic battles of change in the sky above us. Follow the struggles, as new discoveries alter our view of Earth and its place in the universe. Witness the connections, and conflicts, between astronomy and astrology. And lastly, voyage into the galaxy to glimpse how future discoveries might start new battles about the sky above!

Space Aliens: Looking for Life in the Universe

Recommended for grades 6 - 12

1 hour

Join the alien "experts" – Hopeful and Skeptical – as they try to convince each other whether or not life exists beyond Earth. Follow their astrobiology arguments from the ocean floor to a journey across the galaxy. Water and "habitable zone" are fully explained in this exciting show.

Stars of the Pharaohs

1 hour

This program highlights the amazing stellar alignments of the pyramids and other structures of the ancient world. Scientists describe and explain the life and power of the Pharaohs and their significance on world history. Visually spectacular in high definition video!

The First Stargazers

Recommended for grades 6 - 12

1 hour

This show investigates the mysterious alignments of the pyramids. Travel with us to Stonehenge and other giant astronomical sites to see the incredible structures, made by the first stargazers.

The Sun, Our Living Star

1 hour

The Sun has shone on our world for 4.5 billion years. The light that warms our skin today has been felt by every person who has ever lived. It is our nearest star and our planet's powerhouse, the source of the energy that drives our winds, our weather and all life. Discover the secrets of our star in this planetarium show and experience never-before-seen images of the Sun's violent surface.



Grades 9-12

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Retzer Nature Center Programs

Additional Retzer Nature Center programs for grades 9-12 can be adapted from all grades 6-8 programs.

Engineering Alternative Energy for a Changing Climate

2.5 hours

Retzer Nature Center and Planetarium fees apply
Students will rotate through three stations where they will develop a deeper understanding of alternative energy applications. Stations include a tour of Retzer's geothermal heating and cooling system, a look at the Eco-house's solar panel to learn how sunlight is captured to create energy and the planetarium show, Dynamic Earth, that explores the inner workings of Earth's climate system.

Hidden Threats

3 hours

Retzer Nature Center and Planetarium fees apply
Students will explore local threats to the land and water, their impacts, and how these threats may be mitigated. Students will investigate invasive species threatening the ecosystems of southern Wisconsin, specifically, the challenges these species present at Retzer Nature Center. In addition, students will use a watershed model to see what threats to water quality are affecting our waters and how they get there. This program includes a planetarium show, Dynamic Earth, that explores the inner workings of Earth's climate system.

Homeostasis Feedback Mechanism

3 hours

Students will explore the interconnection of species and how they maintain homeostasis in their environment, and what happens if those feedback mechanisms get disrupted. Students will visit a prairie habitat and make connections to the role that fire regulation has on ecosystem biodiversity. In addition, they will role play water run-off and look at the different types of road salt and how that impacts water systems. Students will also explore how plants maintain homeostasis.



Recycling Programs

Recycling: Facility Tour

1.5 hours

Location: City of Milwaukee/Waukesha County Materials Recovery Facility (MRF) – 1401 W. Mount Vernon Ave., Milwaukee

Observe the fascinating combination of physics, technology, and people sorting and baling mixed recyclables before heading to the mills to be made into new products. Learn the details of what can be recycled, why some things cannot, what companies buy each commodity, and what they will become.

Grades 9-12

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Water Resources Programs

Get the Groundwater Picture

45 minutes

Also available as an At-School Program

Maximum of 30 participants

Using a groundwater model, see how a well works and how our lakes and streams rely on groundwater to maintain their water levels. Discover how groundwater moves and how this naturally cleaned water supplies drinking water for people. Learn the importance of protecting and conserving our groundwater resource.

I Live In A Watershed

45 minutes

Also available as an At-School Program

Maximum of 30 participants

Our watershed model provides a hands-on, interactive demonstration of the sources and effects of runoff pollution. Students will learn about the watershed they live in and see how it connects...all the way to the ocean! By the end of this program, students will understand what a watershed is, how it functions and how they are part of it.

Monitoring for Water Quality

1.5 hours

Location: At your school stream or pond

Maximum of 30 participants

Students will measure turbidity, dissolved oxygen, and temperature at the stream and discuss the importance of each. Then students will collect macroinvertebrates and calculate a biotic index. These basic measurements will give insight into the water quality of the stream.

Soils—Sand, Silt and Clay

1 hour

Also available as an At-School Program

Maximum of 30 participants

View a soil profile and learn about soil layers and their formation. Discuss the differences in particle size of sand, silt and clay. Then get your hands dirty by texturing soil samples to feel the difference. Classify each sample using a textural triangle.

Water Resources Assembly

45 minutes

At-School Program only

For multiple grades or groups of 75 or more

Gain a better understanding of water in this interactive power point program. Learn where drinking water comes from and where it goes after we are done with it. Discover the difference between storm sewer and sanitary sewer. Students will learn what actions they can take to protect our water resources from runoff pollution.



Environmental Health Programs

Drinking Water

30 - 60 minutes

At-School Program only

Learn about where you get your water, what can be harmful in the water, and how to eliminate the dangers. Also, find out what to search for at home to keep your water safe.

Food Safety

30 - 60 minutes

At-School Program only

Become aware of food safety and the consequences of mishandling food. Hand washing emphasized and interactive activities are available.

Grades 9-12

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Environmental Health Programs

Humane Animal Careers

25 minutes
At-School Program **only**

Explore various careers that involve animals and the preparation required for each career. Electricity and a clear wall for projection are required for this program.

Humane Animal Education

50 minutes
At-School Program **only**

Learn the legal definitions of humane and cruel behaviors as they relate to animals. Specific case studies show how humane officers apply the laws. Electricity and a clear wall for projection are required for this program.

Planetarium Programs

Chasing the Ghost Particle: SP to the Edge of the Universe

1 hour
Deep in the ice at the heart of Antarctica, IceCube, the biggest and strangest detector in the world waits for mysterious messengers from the cosmos. Scientists are using tiny, elusive particles called neutrinos to explore the most extreme places in the universe. These ghostly neutrinos give us an exclusive way to study powerful cosmic engines like exploding stars and black holes.

Cleopatra's Universe

Recommended for grades 5 - 12
1 hour
Explore the truths and mysteries of Egypt's legendary queen Cleopatra. Experience the life and times of Cleopatra in dramatic fashion as you travel back in time to see stunning recreations of the Alexandria Library, Cleopatra's Palace, and the Pharos Lighthouse.

Dynamic Earth

Recommended for grades 7 - 12
1 hour
This is a high resolution full-dome production, narrated by actor Liam Neeson that explores the inner workings of Earth's climate system. Follow a trail of energy that flows from the Sun into the interlocking systems that shape our climate: the atmosphere, oceans, and the biosphere. Audiences will ride along on swirling ocean and wind currents, dive into the heart of a monster hurricane, come face-to-face with sharks and gigantic whales, and fly into roiling volcanoes.

Europe to the Stars

1 hour
Europe to the Stars takes the viewer on an epic journey behind the scenes at the most productive ground-based observatory in the world, revealing the science, the history, the technology and the people. It is a story of observing a Universe of deep mysteries and hidden secrets and of designing, building and operating the most powerful ground-based telescopes on the planet. The movie focuses on the essential aspects of an astronomical observatory, while offering a broader view of how astronomy is done.

From Earth to the Universe

1 hour
Using sparkling sights and sounds, this voyage through space and time conveys the universe revealed to us by science. Viewers can revel in the splendor of the worlds in the Solar system and our scorching Sun. The show takes the audience out to the colorful birthplaces and burial grounds of stars, and still further out beyond the Milky Way to the unimaginable immensity of a myriad of galaxies. Along the way, the audience will learn about the history of astronomy, the invention of the telescope, and today's giant telescopes that allow us to probe even deeper into the Universe.

Grades 9-12

Request a program at www.WaukeshaCounty.gov/EnvironmentalEd

Planetarium Programs

IBEX: Search for the Edge of the Solar System

1 hour
Resource guide available
Join scientists who are investigating the boundary between our Solar System and the rest of our galaxy. Follow the creation of NASA's Interstellar Boundary Explorer (IBEX) and get an in-depth look at the mission and how IBEX is collecting high-speed atoms to create a map of our Solar System's boundary. Narrated by two inquisitive teenagers, audiences will hear from the scientists and engineers that developed the IBEX mission and created the spacecraft, and get the latest updates on the mission's discoveries.

Phantom of the Universe

1 hour
Resource guide available
This show showcases an exciting exploration of dark matter, from the Big Bang to its anticipated discovery at the Large Hadron Collider. The show reveals the first hints of its existence through the eyes of Fritz Zwicky, the scientist who coined the term "dark matter." It describes the astral choreography in the Andromeda galaxy and then plummets deep underground to see the most sensitive dark matter detector on Earth. From there, it journeys across space and time to the Large Hadron Collider at CERN, speeding alongside particles before they collide in visually stunning explosions of light and sound, while learning how scientists around the world are collaborating to track down the constituents of dark matter.

Seven Wonders

Recommended for grades 5 - 12
1 hour
Turn back the page of time and witness the ancient wonders of the world as they appeared thousands of years ago. Explore the Great Pyramid, stand in the shadow of the towering Colossus and experience the rest of the world's Seven Wonders along with investigating how the wonders were created.

The Dark Matter Mystery: Exploring a Cosmic Secret

1 hour
Today, we know that approximately a quarter of the universe is filled with mysterious glue: Dark Matter. We know it is out there, but we have no idea what it is made up of. This planetarium show takes you on the contemporary astrophysics. You will see why we know that Dark Matter exists, and how this search is one of the most challenging and exciting searches science has to offer.

The Hot and Energetic Universe

1 hour
Resource guide available
This show explores the achievements of modern astronomy, the basic principles of electromagnetic radiation, and the natural phenomena related to the High Energy Astrophysics. This science probes hot gas in clusters of galaxies, and around super-massive black holes in the centers of galaxies. High energy radiation provides important information about our own galaxy, neutron stars, supernova remnants and stars like our Sun.

The Sun, Our Living Star

1 hour
The Sun has shone on our world for 4.5 billion years. The light that warms our skin today has been felt by every person who has ever lived. It is our nearest star and our planet's powerhouse, the source of the energy that drives our winds, our weather and all life. Discover the secrets of our star in this planetarium show and experience never-before-seen images of the Sun's violent surface.

COMMUNITY CONNECTIONS, IMPACTS AND ACTIONS!

A comprehensive K-12 environmental education curriculum developed collaboratively between Waukesha County, Waukesha School District, and Carroll University.



These organizations have collaborated to create a comprehensive, interdisciplinary K-12 science and environmental education curriculum fully integrated with NGSS Science and Literacy standards. The goal of this curriculum is to create more scientifically and environmentally literate citizens with the ability to understand and critically assess current scientific and environmental issues, along with a desire and ability to engage in these issues. This project focuses on improving efficiencies through program coordination among partners as well as building comprehensive approaches. The full curriculum is published online for the 2019-2020 school year.

www.waukeshacounty.gov/EnvEdu/schools/curriculum



Professional Development

5th Annual Waukesha County Land Conservation Teacher Tour

Wednesday, July 10, 2019

9:00 a.m. - 3:00 p.m.

Location: Tour leaves from Retzer Nature Center - 514 W28167 Madison St., Waukesha

Fee: Free

Limit: 40 teachers from Waukesha County K-12 public / private elementary & secondary schools

Registration required by July 3, 2019 via Online Services at www.WaukeshaCountyParks.com

Waukesha County, Carroll University, and the Waukesha School District have collaborated to create a K-12 environmental education curriculum fully integrated with K-12 NGSS Science and ESL standards. The curriculum is published online and available as both iBooks and PDFs. This tour will visit the field trip sites offered by the partner organizations, including:

- Retzer Nature Center
- Carroll University Prairie Springs Field Station
- EB Shurts Environmental Education Learning Center
- Waukesha County / City of Milwaukee Joint Materials Recovery Facility

Each location will be broken into grade appropriate activities. Coach bus travel and box lunch included. A certificate of completion will be provided.

Call 262-896-8300 or e-mail water@waukeshacounty.gov for more information



Project WET Training Session

Project WET (Water Education for Teachers) is a collection of hands-on activities designed and tested by teachers to educate K-12 students about water. Training to receive and use the WET guidebook can be scheduled for your school or district at your convenience with a minimum of 6 participants.

- Learn how to use the hands-on activities, including water quality testing and macro-invertebrate sampling
- Share ideas and tips with other teachers
- Learn about local program resources

There is a \$35.00 fee for each guidebook ordered.

Call 262-896-8300 or email water@waukeshacounty.gov to schedule a training.

Volunteer Opportunities

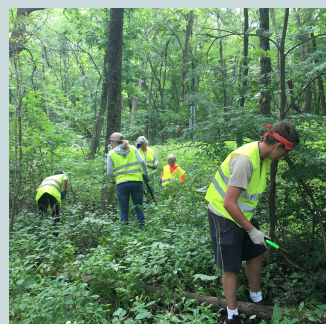
Perfect for students, classes, and teachers!



Volunteering with Waukesha County Parks and Land Use is a great opportunity to experience the outdoors while giving back to the community. Opportunities vary depending on time of year and scheduled projects within the park system.

Options include, but are not limited to special event participation, clean up projects, storm drain stenciling, aquatic invasive species outreach, citizen science programs, stewardship projects, and natural land management.

Waukesha County will work with you and your group to find or develop a project that best meets your needs.



www.WaukeshaCounty.gov/WCVolunteer

MAKE YOUR PROGRAM REQUEST ONLINE!

CHECK OUT

www.WaukeshaCounty.gov/EnvironmentalEd

FOR INFORMATION ON THESE PROGRAMS:

ENVIRONMENTAL HEALTH

PLANETARIUM

RECYCLING

RETZER NATURE CENTER

UW-EXTENSION

WATER RESOURCES





Waukesha County
Department of
Parks and Land Use

Retzer Nature Center
S14 W28167 Madison St.
Waukesha, WI 53188



Retzer Nature Center is part of the Waukesha County Park System, a natural resource-based park system that demonstrates stewardship while providing recreational and educational opportunities.

The original 90 acres was purchased by John Retzer from the Federal Land Bank in 1938. The property served as John and Florence Retzer's retirement homestead. In 1973, Florence Horn Retzer bequeathed the property to Waukesha County for park purposes. Her vision was ***"to conserve the scenery, natural life and wildlife, leaving the land***

unimpaired for the enjoyment of future generations." Guided by Mrs. Retzer's wishes, the Waukesha County Park System developed Retzer Nature Center, which focuses on environmental education, natural land management, community restoration, and wildlife habitat improvement. The recently renovated interactive exhibit space expands the existing nature center exhibits and programming to provide additional opportunities for schools and residents alike.