

# 2023 OKLAHOMA ENVIRONMENTAL EDUCATION EXPO

## The Sustaining Power of Nature



**Friday, February 3, 2023  
8 a.m. to 3:30 p.m.**

**Oklahoma City Zoo  
Rosser Education Center**

**HOSTED BY THE OKLAHOMA ASSOCIATION FOR ENVIRONMENTAL EDUCATION**



# 2023 ENVIRONMENTAL EDUCATION EXPO *Conference Agenda*

**8 a.m.** Registration and Exhibits

**9 a.m.** Opening Session

Announcements and Introductions by OKAEE Board

**9:15 a.m.** Concurrent Session 1

<b>Don't Trash That: Recycling, Composting and Decomposing</b>  Jeanette Nance and Beverly Caraway  Auditorium	<b>From Monitoring Mosquitoes to Measuring Rain: How We Empower Youth in the Climate Change Challenge</b>  Emma Kuster and April Taylor  Classroom 3	<b>Mind Blowing Wind Energy</b>  Debra Wood  Classroom 4	<b>EcoRise Audits and Grants: Student Driven Solutions for Green Spaces</b>  Amelia Cook and Toni Walton  Discovery Theater	<b>Forest Therapy: Open the Door.</b>  Pamela Rogers  Tree House
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**10 a.m.** Break and Exhibits

**10:15 a.m.** Concurrent Session 2

<b>Reviving Natural Areas and Creating Living Labs, School by School</b>  Cheryl Cheadle and Josh Kouri  Auditorium	<b>From Monitoring Mosquitoes to Measuring Rain: How We Empower Youth in the Climate Change Challenge</b>  Emma Kuster and April Taylor  Classroom 3	<b>Mind Blowing Wind Energy</b>  Debra Wood Classroom 4	<b>EcoRise Audits and Grants: Student Driven Solutions for Green Spaces</b>  Amelia Cook and Toni Walton  Discovery Theater	<b>Forest Therapy: Open the Door.</b>  Pamela Rogers  Tree House
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**11 a.m.** Break and Exhibits

**11:15 a.m.** Keynote Speaker – Laurie Gillum

**Noon** Lunch, Networking and Exhibits

**1:15 p.m.** Concurrent Session 3

<b>Reviving Natural Areas and Creating Living Labs, School by School</b>  Cheryl Cheadle and Josh Kouri  Auditorium	<b>Learning to Like Lichen</b>  Becca Bornstein  Classroom 3	<b>From Whence it Came: Recycling and Returning to Nature</b>  Charlotte W. Wilson  Classroom 4	<b>Build-A-Bee Workshop: Noticing Native Pollinators</b>  Joe Rackley and Caroline Nelson  Discovery Theater	<b>Climate, Water and Resilience with Project WET</b>  Candice Miller  Tree House
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**2 p.m.** Exhibits and Break

**2:15 p.m.** Concurrent Session 4

<b>Heads Down, Heads Up: A Virtual (Reality) Program for Outdoor Education</b>  Dr. Nicole Colston, Dr. Tataleni Asino, Clement Abai and Ayo Ibukuni  Auditorium	<b>Learning to Like Lichen</b>  Becca Bornstein  Classroom 3	<b>The Sustaining Power of Play: Living Loose Parts</b>  Laura Wilhelm, Ed. D..  Classroom 4	<b>Build-A-Bee Workshop: Noticing Native Pollinators</b>  Joe Rackley and Caroline Nelson  Discovery Theater	<b>Take It Outside: Health and Wellbeing Naturally with PLT</b>  Anthony Pascall Tree House
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**3 p.m.** Closing Session – Door Prizes, Certificates and Swag Bags.

**3:30 p.m.** Dismissal

# KEYNOTE SPEAKER

Laurie MacIvor Gillum has spent a lifetime passionate about the natural world around her. Growing up in Oklahoma City, she spent much of her time as a young girl watching and learning bird species and taking care of injured animals.

When National Geographic first published Jane Goodall's article "My Life Among Wild Chimpanzees" in 1963, Gillum became fascinated with the behavior of chimpanzees. In high school, the books that were by her bedside included "The Silent World" by Jacques Cousteau, "In the Shadow of Man" by Jane Goodall, "Silent Spring" by Rachel Carson and "Life and Death of the Salt Marsh" by John Teal. Animal behavior, natural history, and conservation biology became her passions throughout her entire career.

Gillum did her undergraduate work at Lewis and Clark College in Portland, Oregon, and received her graduate degrees from the University of Massachusetts at Amherst. She has published several papers, was a recipient of the Chevron Conservation Award in Washington, D.C. and helped write the Federal Recovery Plan for the endangered Atlantic population of Piping Plovers.

From oceans to the Amazon rainforest, she has dedicated most of her life to studying endangered species and their habitats, including cetaceans, chimpanzees, birds and bugs. This passion for the natural world led her on a surprising journey to teaching kids about how their relationship to the plants and animals around them can make a positive difference in the world.



Our mission is to support Oklahoma educators and promote, in formal and non-formal settings, environmental literacy through communication, resource sharing, skill building, program sponsorship and recognition of excellence.

The Oklahoma Association for Environmental Education was established in 1993 and is the state affiliate of the North American Association for Environmental Education (NAAEE). OKAEE brings together a variety of environmental educators who share a common goal – excellence in environmental education.

OKAEE serves educators of all grade levels, natural resource professionals, students, university faculty, environmental clubs, non-profit educational programs, and corporate environmental interests. OKAEE unites these diverse interests in a forum designed to energize and inspire participants to greater levels of achievement.

OKAEE accomplishes many of its goals by hosting a one-day conference, the Oklahoma Environmental Education Expo (EE Expo). The first EE Expo was held in February 1996, and 2023 marks the 24th EE Expo.

The activities and day-to-day operations of OKAEE are organized and carried out by a Board of Directors. Board members are all volunteers. As in most not-for profit organizations, OKAEE is constantly seeking new board members. We would love for you to join us.

For more information about OKAEE, please contact Sara Ivey at: [sara.ivey@deq.ok.gov](mailto:sara.ivey@deq.ok.gov) or 405-702-7122



# CONCURRENT SESSION 1 (9:15 – 10 A.M.)

## Don't Trash That: Recycling, Composting and Decomposing

**Jeanette Nance and Beverlee Caraway**  
Keep Oklahoma Beautiful | Oklahoma City

Keep Oklahoma Beautiful Recycle Program will engage attendees in an interactive presentation. This will be done through physical representations of recyclable and non-recyclable items all focused on how long does this take to decompose. Participants will be given opportunities to respond to the question of decomposition, then will be able to lift the item to discover the true length of time for decomposition. The benefits of composting and recycling versus sending things to the landfill is important. The goal is to teach students that keeping these materials in nature is the right thing to do and developing newer, greener habits is vital to sustaining the power of nature.

*This session is recommended for Elementary Teachers.*

## From Monitoring Mosquitoes to Measuring Rain: How We Empower Youth in the Climate Change Challenge

**Emma Kuster and April Taylor**  
South Central Climate Adaptation Science Center | Norman

During our session, we will introduce four different hands-on activities that share a central theme: climate change. Our activities will include Mosquito Monitoring, Cool Cities, Phenology, and Measuring Precipitation. Each activity covers different aspects of the climate system, and some activities are better suited for younger students while others are best suited for older students.

*This session is appropriate for Teachers of all grade levels.*

## Mind Blowing Wind Energy

**Debra Wood | Gifted and Talented Teacher**  
Orvis Risner Elementary School | Edmond

Let's test your critical thinking skills and knowledge of historical and current Oklahoma agriculture practices in this brand-new breakout box created entirely around windmills, wind turbines and wind energy. Originally designed for 4th grade, these boxes will have students in all grade levels wanting to give it a try. Never done a breakout box with students? No worries, you will be guided through the entire process of how to create such clues that can teach whatever concept you have.

*This session is recommended for Elementary Teachers.*

## EcoRise Audits and Grants: Student Driven Solutions for Green Spaces

**Amelia Cook and Toni Walton | EcoRise and 6th Grade Math Teacher**  
Durant Intermediate School | Durant

Learn how eco-audits can encourage students to examine and improve their outdoor spaces. Through interactive activities that are perfect for both formal and informal education settings, we will model effective facilitation of transformative student-centered experiences. Using the eco-audit process, students collect and analyze environmental data, identify place-based challenges, and design feasible, impactful solutions to increase access to nature. We will also explore design thinking principles that address stakeholder challenges and encourage community collaboration to increase buy in for nature-based learning. Participants will access over 200 standards-aligned sustainability lessons and learn how eco-audits can transform public spaces, increase access to nature, and can be used to apply for grant funds (\$\$\$) that make students' green ideas a reality.

*This session is appropriate for Teachers of all grade levels.*

## Forest Therapy: Open the Door.

**Pamela Rogers | Holland Hall School and the Association of Nature and Forest Therapy Guides | Tulsa**

Spending time in nature is a mind, body and soul sustaining practice. In Nature and Forest Therapy, our motto is that the forest is the therapist, we simply open the door. There are now a plethora of peer reviewed studies that show the benefit for humans - both young and old - in spending time in nature - especially with a focus on taking in the experiences through our senses. It also increases the likelihood that we will connect with nature in ways that will encourage us to treasure and preserve the natural world that surrounds us. As a 6th grade science teacher that focuses much of the year on neuroscience - I use these practices with my students. I also guide nature and forest therapy walks for the public in Tulsa.

*This session is recommended for Secondary Teachers.*





# CONCURRENT SESSION 2 (10:15 – 11 A.M.)

## Reviving Natural Areas and Creating Living Labs, School by School

**Cheryl Cheadle and Josh Kouri | Oklahoma Conservation Commission and Oklahoma County Conservation District | Oklahoma City**

The Yard by Yard Community Resiliency Project is finding a home in neighborhood lawns in over 20 counties in Oklahoma. This presentation will highlight how schools and entire communities can benefit from having conservation practices on school properties. This presentation will cover how the conservation practices promoted by the Yard by Yard Project will build healthy soil, ultimately resulting in: food for pollinators; habitat for small urban wildlife; clean local streams, rivers, and lakes; reduced flooding; drought mitigation; and even helping to cool an overheating earth. There will be three main focuses here: 1) discuss how important it is to create places that provide functional ecosystems; 2) consider the great value of having science opportunities right out the front door; and 3) provide information on how this can be made to happen at your school.

*This session is recommended for Elementary and Middle Teachers.*

## From Monitoring Mosquitoes to Measuring Rain: How we Empower Youth in the Climate Change Challenge

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*This session is recommended for Secondary Teachers.*





# CONCURRENT SESSION 3 (1:15 – 2 P.M.)

## Reviving Natural Areas and Creating Living Labs, School by School

**Cheryl Cheadle and Josh Kouri | Oklahoma Conservation Commission and Oklahoma County Conservation District | Oklahoma City**

The Yard by Yard Community Resiliency Project is finding a home in neighborhood lawns in over 20 counties in Oklahoma. This presentation will highlight how schools and entire communities can benefit from having conservation practices on school properties. This presentation will cover how the conservation practices promoted by the Yard by Yard Project will build healthy soil, ultimately resulting in: food for pollinators; habitat for small urban wildlife; clean local streams, rivers, and lakes; reduced flooding; drought mitigation; and even helping to cool an overheating earth. There will be three main focuses here: 1) discuss how important it is to create places that provide functional ecosystems; 2) consider the great value of having science opportunities right out the front door; and 3) provide information on how this can be made to happen at your school.

*This session is recommended for Elementary and Middle Teachers.*

## Learning to Like Lichen

**Becca Bornstein | Museum Educator  
Science Museum Oklahoma | Oklahoma City**

It's an organism that most have seen, but few recognize. A fascinating symbiosis that has much to teach us. Lichens are a powerful catalyst for investigating a plethora of topics, from air quality and art to geology and nutrient cycling. As an unconventional lifeform that straddles multiple kingdoms of biological classification, lichens captivate us by how they defy the norms.

We will explore some real lichen samples, discuss their structure and adaptations for survival, and discover what makes lichen such an intriguing organism. This introduction is intended to show how the study of lichen can be a springboard for greater exploration in and out of the classroom, across disciplines, and with something interesting for all age groups.

Attendees will leave with a list of ideas for applying this topic to their institution's curriculum and how to take it further.

*This session is appropriate for Teachers of all grade levels.*

## From Whence it Came: Recycling and Returning to Nature

**Charlotte W. Wilson | Retired Montessori Professor |  
Oklahoma City University | Oklahoma City**

Explore items we take out of Nature and how to put them back into Nature. After eating an egg we can put the egg shells back into nature in a variety of ways. Using the newspaper that was made from trees and package our seeds for next year. The participants will go home with four different items that were taken from nature and learn how to put them back into nature.

*This session is recommended for Early Childhood Teachers.*

## Build-A-Bee Workshop: Noticing Native Pollinators

**Joe Rackley and Caroline Nelson | Plant Protection Specialists  
Oklahoma Department Agriculture, Food and Forestry | Oklahoma City**

Many Oklahoma bee pollinators are small or drab and less exciting than the showy and popular pollinators we can easily see. We will build a bee while exploring bee color and morphology, learning about interesting native bee pollinators, and exploring the amazing natural pollinator diversity Oklahoma has to offer. Do you know how bees see flowers compared to how humans see them? How can we encourage Native pollinators to visit urban and rural gardens? And what is the impact of non-native and invasive species on our Native pollinators and plants? We will ask participants to think critically about how our environment works and what steps we can take to see and support our bee pollinators.

*This session is recommended for Elementary Teachers.*

## Climate, Water and Resilience with Project WET

**Candice Miller | Oklahoma Project WET Coordinator  
Oklahoma Conservation Commission | Oklahoma City**

This will be an introduction to Project WET's newest publication, "Climate, Water and Resilience." Climate change is a complex topic that can be intimidating to teach. However, understanding climate, and specifically the way that climate is changing, is crucial to making informed decisions and building resilience. This guide helps educators teach middle school and high school aged students about climate and climate change using nine interactive, objective, science-based activities that students will enjoy. While participants will not walk away with the guidebook, we will include a hands-on activity from the guide book during this session and will present opportunities for upcoming workshops available to educators. All activities are correlated to NGSS and Common Core Math and ELA standards.

*This session is recommended for Secondary Teachers.*





# CONCURRENT SESSION 4 (2:15 — 3 P.M.)

## Heads down, Heads up: A Virtual (Reality) Program for Outdoor Education

**Dr. Nicole Colston, Dr. Tataleni Asino, Clement Abai and Ayo Ibukuni**  
Oklahoma State University | Stillwater

Kids are on devices. We try to meet them there and connect virtual reality to nature exploration. This session will share examples of the free and open access tools we use, and engage the audience in brainstorming how to use mobile devices and virtual reality effectively in and for environmental education. Learn more. Share your ideas. Bring your cellphone.

*This session is recommended for Secondary Teachers.*

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Attendees will leave with a list of ideas for applying this topic to their institution's curriculum and how to take it further.

*This session is appropriate for Teachers of all grade levels.*

## The Sustaining Power of Play: Living Loose Parts

**Laura Wilhelm, Ed. D.** | Vice President of Professional Learning Services  
Kaplan Early Learning Co. | Edmond

From bugs and plants to pets and friends, bring life to your lessons. We'll practice noticing the living things in and around our classroom environments and learn innovative ways to incorporate them into children's playful explorations. Defining and expanding the Loose Parts mindset beyond static objects into more interactive play.

*This session is recommended for Early Childhood Teachers.*

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**Joe Rackley and Caroline Nelson** | Plant Protection Specialists  
Oklahoma Department of Agriculture, Food and Forestry | Oklahoma City

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*This session is recommended for Elementary Teachers.*

## Take it Outside: Health and Wellbeing Naturally with PLT

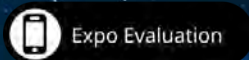
**Anthony Pascall** | Oklahoma Project Learning Tree (PLT) Coordinator  
Oklahoma Department of Agriculture, Food and Forestry | Oklahoma City

There is a wealth of research describing the positive mental and physical health benefits of being outside more, and those benefits are especially pronounced in a learning setting. Using an activity from Project Learning Tree (PLT), which educators can do with their own classes, we will explore that relationship and compare heart rate and mood after doing a yoga activity indoors and outdoors. We will also share resources and strategies on how to teach and learn more about the outdoors.

*This session is recommended for Elementary Teachers.*

*Tell us your thoughts  
about EE Expo.*

**Scan here to take our  
survey and request your  
certificate of attendance.**

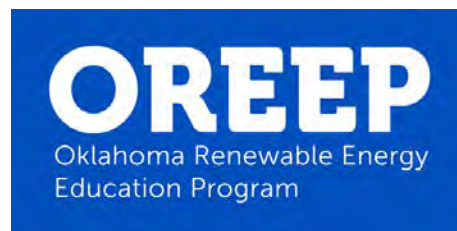




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