



2023-2024

YOUTH EDUCATION PROGRAM CATALOG





ABOUT THE PROGRAM

The Cumberland River Compact's Experiential Education Youth programs provide place-based experiences to your students and cultivate a connection to nature. We support equitable access to learning experiences and to a healthy environment. Our programs are aligned to Tennessee State Science standards and our educators are trained in the best-practices for environmental education. We were recognized as the Tennessee Environmental Education Organization of the Year in 2021 and are a preferred partner for school districts across Middle Tennessee. In the past five years, we have engaged over 17,000 students in 10 counties.

EDUCATIONAL AUDIENCES

Classrooms

Your classroom is a great place to bring the Cumberland River Compact experiential education programs! Our programs are all designed to work for a standard class period.

Homeschool Groups

The Cumberland River Compact Education Team can modify our programs to work for smaller, multi-age homeschool groups.

Summer Camps

Whether inside or out – summer camps are a great place to bring experiential education!

Afterschool Programs

We can customize experiential education programs for your afterschool program! Reach out to us for a customized scope of work that blends the best of our programs and adds programs exclusively for afterschool groups.

Not seeing your audience here? Reach out to the education team to chat about how we can work with you.

TEACHER TESTIMONIALS

"My students talk about the visit long after it has happened. They enjoyed viewing the specimens and learning more about the Cumberland River. They also really enjoyed learning a different way to determine the pollution in a water system – using the population or lack of particular insects."

"This was an engaging and informative experience for our students. It incorporated science, social studies and math and in an authentic situation. The aquatic organisms from a local creek was amazing. The games were helpful in reviewing the information with the students."

"Thoroughly impressed and kids were talking about the crawdads all afternoon!"

PROGRAMS OFFERED

Waterway Wonders

- Preferred Grades: 3rd – 7th
- Class Size and Timing: Up to 30 students for multiple 45 minute class periods

We offer multi-day programs that uses the Meaningful Watershed Education Experiences learner-centered framework to build stronger connections between students and their local waterways. The MWEE focuses on investigating local environmental issues that leads to informed action. The program sequence is designed to incorporate concepts from our classic program options while exploring how our actions affect local water quality. Designed with life science standards in mind, this program can be adapted to 3rd – 7th grade audiences. We can offer three to four sessions for one grade level. You can choose to space out the sessions for how it works with your scope and sequence. We have implemented sessions over one week or over an entire school year. An optional culminating field trip to a local waterway can be coordinated by our staff.



Creek Critters

- Preferred Grades: 3rd–6th
- Class Size and Timing: Up to 30 students for a 45 minute class period.

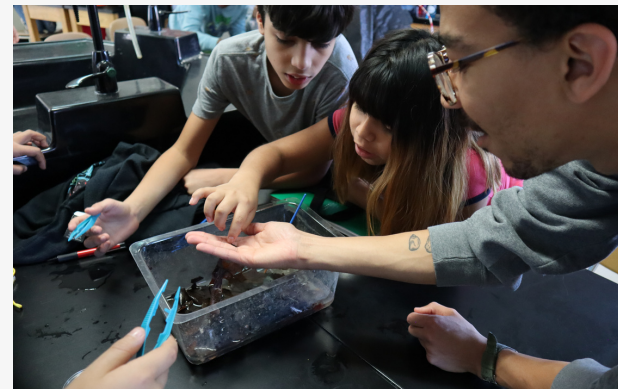
Creek Critters shows your students what a healthy aquatic ecosystem looks like by bringing the creek to the classroom! Students explore biodiversity, food webs, adaptations, and more through interactive and hands-on activities. We bring preserved (and sometimes live!) samples to the classroom for students to see up close. This is our most popular program!



Erosion and Our Waterways

- Preferred Grades: 2nd – 4th
- Class Size and Timing: Up to 30 students for a 45 minute class period.

In this program, students will demonstrate weathering and erosion, then investigate how erosion impacts siltation pollution in waterways by measuring the turbidity (clarity) of runoff water. They will then apply this knowledge by identifying areas of erosion in photographs and at their school.



***Some programs can be delivered virtually.**

PROGRAMS OFFERED

Pollution in our Water

- Preferred Grades: 2nd–6th
- Class Size and Timing: Up to 30 students for a 45 minute class period.

Students will simulate the impact of pollution on water quality as the Cumberland River flows from the headwaters to Nashville. After seeing how the water is polluted students will be tasked with making the water clean again by creating their own water filtration mechanism.

Stormwater Model

- Preferred Grades: 3rd–8th
- Class Size and Timing: Up to 30 students for a 30 minute class period.

Students will be introduced to the basics of a watershed and how human impact and land use can affect water quality through the use of an interactive stormwater model.

Stormwater Audit & Urban Hike

- Preferred Grades: 4th–12th
- Class Size and Timing: Up to 30 students for a 45 minute class period.

Students will explore the connections between the natural and built environments around their school campus through a guided tour and stormwater audit. They will discuss the results that they found and propose potential solutions to issues on their campus.

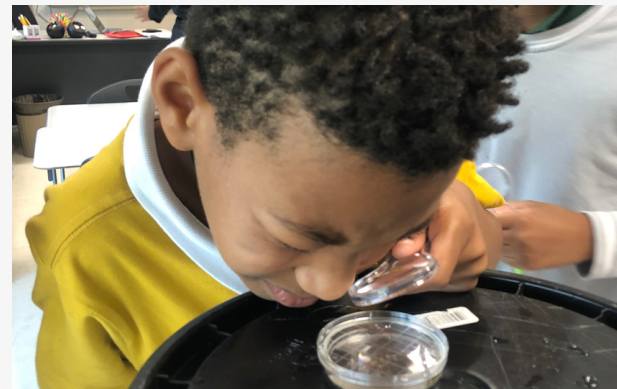
Career Chats & General Visits

- Preferred Grades: 1st–12th
- Class Size and Timing: Up to 30 students for a 45 minute class period.

We can provide a general presentation overview of the Cumberland River, aquatic ecosystems, water quality, and solutions. We also include information about careers in conservation.

Our Education Team can come to your school for one day, spending time with one grade level of students and rotating through up to 5 classes. We will work with you to create a custom schedule that keeps your lunch, recess, and other times in mind while ensuring our educators can reset between each of your programs.

***Some programs can be delivered virtually.**



COST BREAKDOWN

When you request a program, we will provide you with a quote for your school. Thanks to the support of our sponsors, we can provide many one-time programs for free at your Title 1 school and in select communities. Your quote will reflect any applicable discounts.

One-Time School Visits within 60 miles of Nashville (includes, Rutherford, Williamson, Sumner, Montgomery, and Robertson counties)

- Up to 2 sessions (i.e. 2 classes or approximately a half day of programming) – \$225
- Over 3 sessions (i.e. 3 classes or a full day of programming) – \$75 per additional session
- Homeschool groups (\$10 per student, minimum charge of \$150)
- Summer Camps (starting at \$150)

CANCELLATION POLICY

In the event that a program or session needs to be canceled or rescheduled, please let us know as soon as possible. Cancellations must be made in writing (email accepted) at least seven (7) days prior to the date(s) booked to avoid any fees. Cancellation requests made within six (6) days or fewer are subject to a \$50 administration fee.

Cancellations as a result of weather conditions that close or delay the reserved school system will not be charged an administration fee and every effort will be made to reschedule.

REFUND POLICY

In the event that a program or session needs to be canceled after payment has already been received, your payment will be used as a credit for a future program.



FAQS

Can the Cumberland River Compact attend a STEM night at my school?

Yes – we enjoy coming to your STEM night to share about local biodiversity with kids and their families. Program fees and any applicable discounts also apply to STEM nights.

Can my school work with the Cumberland River Compact for a longer partnership?

Yes – we love the opportunity to work with your school and students for a longer period of time. Our Waterway Wonders is an excellent program for reaching your students throughout the year. We are also open to collaborating with you on something unique!

What resources and programs do you have available for teachers?

You can find our teacher resources on our website. We have our e-STEM for Tennessee's Teachers resources and training program along with the Life Support: Tennessee's Water Resources and Careers training.

I'm interested in working with you in a different way that isn't included here. Who should I contact?

Reach out to Ellen Messerly (ellen.messerly@cumberlandrivercompact.org) and we can find a time to talk with you!

**Scan this QR code to request
a program and learn more**



Still have questions? Reach out to Ellen Messerly – ellen.messerly@cumberlandrivercompact.org



STANDARDS

Creek Critters

- 3.LS4.3: Explain how changes to an environment's biodiversity influence human resources.
- 3.ESS2.1: Explain the cycle of water on Earth.
- 4.LS2.2: Develop models of terrestrial and aquatic food chains to describe the movement of energy among producers, herbivores, carnivores, omnivores, and decomposers.
- 4.LS2.3: Using information about the roles of organism (producers, consumers, decomposer), evaluate how those roles in food chains are interconnected in a food web, and communicate how the organisms are continuously able to meet their needs in a stable food web.
- 4.LS2.4: Develop and use models to determine the effects of introducing a species to, or remove a species from, an ecosystem and how either one can damage the balance of the ecosystem.
- 4.LS2.5: Analyze and interpret data about changes (land characteristics, water distribution, temperature, food, and other organisms) in the environment and describe what mechanisms organism can use to affect their ability to survive and reproduce.
- 6.LS2.2: Determine the impact of competitive, symbiotic, and predatory interactions in an ecosystem
- 6.LS2.3: Draw conclusions about the transfer of energy through a food web and energy pyramid in an ecosystem.
- 6.ESS3.3: Assess the impacts of human activities on the biosphere including conservation, habitat management, species endangerment, and extinction.

Erosion and Our Waterways

- 2.ESS2.1 Compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
- 2.ESS2.2 Observe and analyze how blowing wind and flowing water can move Earth materials (soil, rocks) from one place to another, changing the shape of a landform and affecting the habitats of living things.
- 4.ESS1.1 Generate and support a claim with evidence that over long periods of time, erosion (weathering and transportation) and deposition have changed landscapes and created new landforms.
- 4.ESS2.1: Collect and analyze data from observations to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering (frost wedging, abrasion, tree root wedging) and are transported by water, ice, wind, gravity, and vegetation.
- 4.ESS3.2: Create an argument, using evidence from research, that human activity (farming, mining, building) can affect the land and ocean in positive and/or negative ways.

Pollution in our Water

- 2.LS2.2: Predict what happens to animals when the environment changes (temperature, cutting down trees, wildfires, pollution, salinity, drought, land preservation).
- 2.ESS2.4: Use information obtained from reliable sources to explain that water is found in the ocean, rivers, streams, lakes, and ponds, and may be solid or liquid.
- 3.LS4.1: Explain the cause and effect relationship between a naturally changing environment and an organism's ability to survive.
- 3.ESS2.1: Explain the cycle of water on Earth.
- 3.ESS3.1: Explain how natural hazards (fires, landslides, earthquakes, volcanic eruptions, floods) impact humans and the environment.
- 3.ESS3.2: Design solutions to reduce the impact of natural hazards (fires, landslides, earthquakes, volcanic eruptions, floods) on the environment.
- 4.ESS3.2: Create an argument, using evidence from research, that human activity (farming, mining, building) can affect the land and ocean in positive and/or negative ways.

Stormwater Model

- 3.ESS2.1: Explain the cycle of water on Earth.
- 3.ESS3.1: Explain how natural hazards (fires, landslides, earthquakes, volcanic eruptions, floods) impact humans and the environment.
- 3.ESS3.2: Design solutions to reduce the impact of natural hazards (fires, landslides, earthquakes, volcanic eruptions, floods) on the environment.
- 4.ESS3.2: Create an argument, using evidence from research, that human activity (farming, mining, building) can affect the land and ocean in positive and/or negative ways
- EVSC.ETS3.1: Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts.
- AP Environmental Science: Land and Water Use Unit & Aquatic and Terrestrial Pollution

Stormwater Audit and Urban Hike

- 4.ESS3.2: Create an argument, using evidence from research, that human activity (farming, mining, building) can affect the land and ocean in positive and/or negative ways
- EVSC.ETS3.1: Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts.
- AP Environmental Science: Land and Water Use Unit & Aquatic and Terrestrial Pollution