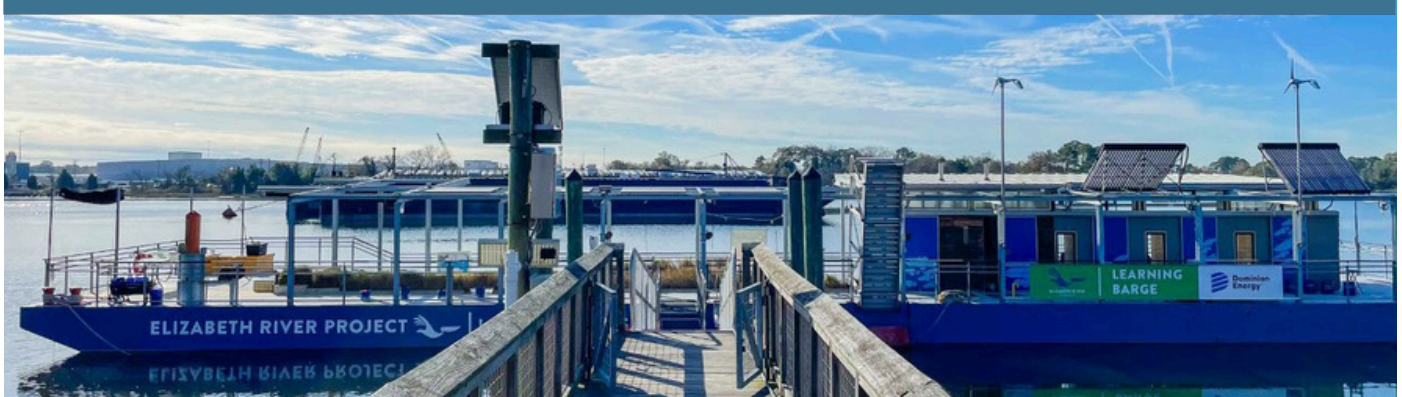


The Blocker Program for Excellence in Environmental Education



2025-2026 GreenSTEM

The Elizabeth River Project's Dominion Energy Learning Barge

MISSION:

To restore the health of the Elizabeth River by working with our neighbors, businesses, and governments.

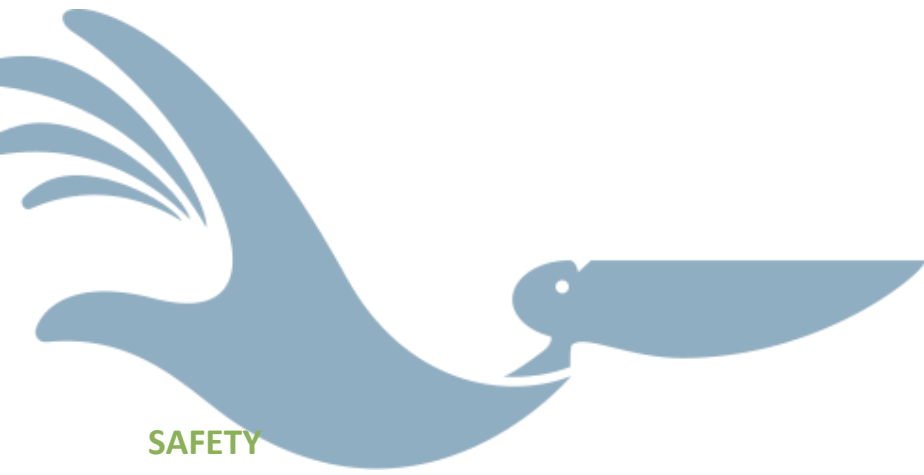
AWARD WINNING:

Students learn by doing aboard the 120'x 32' steel deck barge designed by the University of Virginia and owned and operated by The Elizabeth River Project. The barge is a unique and powerful living laboratory for students to learn about river science, the Elizabeth River watershed, ecosystem, stewardship and restoration efforts. As America's Greenest Vessel, her "green" design demonstrates sustainable practices for home and school. Students come aboard thinking globally and leave equipped to make a difference in their community. The Learning Barge's education program received the 2011 Environmental Excellence Award from SeaWorld Busch Gardens, 2014 Governor's Gold Award for Sustainability and 2015 VA Env. Excellence Award from Dept. of Conservation and Recreation.

PROGRAM:

To foster river stewards and teach resilience, students perform a scientific field investigation to answer, *"How has the Elizabeth River changed over time, and what can I do to help?"*

To kick off the experience, students are divided into small groups and rotate through six interactive learning stations, each featuring hands-on activities. At every station, an educator from the Elizabeth River Project takes on the role of a blue or green career professional, encouraging students to explore future job possibilities in environmental fields. Throughout the program, students will identify local plant and animal species, collect and record scientific data, and use real field tools such as thermometers and water quality testing equipment.



SAFETY

The barge is Coast Guard certified and **stays tied to a dock** during the entire program. One chaperone or teacher is recommended per 15 students.

IDEAL GROUPS

20-60, preK-university (**15 student min., 90 max**)

Public, private and home schools, youth organizations and scouts

TO SCHEDULE

Fill out a Request Form found at www.elizabethriver.org (Learning Barge Page)

Helpful information to provide when scheduling:

- 1.) How many students
- 2.) Grade level of students
- 3.) Season or month interested in
- 4.) Name of school and your contact info.

PROGRAM TIMES

Monday–Friday. Closed holidays. Must reschedule if raining or extreme weather.

Time slots:

9:30-11:00am or 10-11:30am or 11:30-1pm

Seasons include:

Fall: Sept. 2 – Nov. 25

Spring: March 1 – June 8

Summer: June 19 – August 4

TEACHER RESOURCES

Additional activities are available at www.elizabethriver.org

Check out our Blue Green Career Guide located on the Learning Barge webpage!



PRICE PER STUDENT (NEW)

\$20 per student, **1.5 hour** program. Teachers are free, and first 6 parents chaperones are no charge. Additional chaperones after first 6 are subject to fee. *Please inquire about homeschool pricing.*

To support staffing and essential program operations, a **minimum fee of \$300 per program** (or 15-student minimum at \$20 per student) **is required.**

Please contact Hailey Lauritsen, hlauritsen@elizabethriver.org to discuss pricing. Title 1 pricing may be available. We will do our best to work with your budget.

DOCKING SITE

Grandy Village Learning Center

2971 Kimball Loop
Norfolk, VA 23504

WHAT TO BRING

Program is entirely OUTSIDE, please make sure students are dressed appropriately. We recommend sunscreen, water bottle, hat, jacket/ raincoat, and closed toe shoes.

FOR FURTHER QUESTIONS

Please contact Learning Barge Education Manager, Hailey Lauritsen, hlauritsen@elizabethriver.org

SNAIL MAIL THE CREW

Students are encouraged to SNAIL MAIL the barge crew by writing a letter and sharing what they will do to support a healthy river. Write The Learning Barge Crew, The Elizabeth River Project, 4610 Colley Ave., Norfolk, VA 23508



VIRGINIA STANDARDS OF LEARNING

SCIENCE: K: 1, 4, 5, 6, 7, 9, 10, 11 **1:** 1, 2, 4, 5, 6, 7, 8 **2:** 1, 2, 3, 4, 5, 6, 7, 8 **3:** 1, 2, 4, 5, 6, 8, 9, 10, 11
4: 1, 3, 4, 5, 6, 9 **5:** 1, 4, 5, 6, 7 **6:** 1, 2, 3, 4, 5, 6, 7, 8, 9 **LS:** 1, 4, 5, 6, 8, 9, 10, 11, 13 **PS:** 1, 6, 11
ES: 1, 2, 3, 6, 10, 11, 12, 13 **Biology:** 1, 8

MATH: K: 6, 10, 11, 13 **1:** 10, 12, 15 **2:** NS.1-NS.3, PS.1, Estimation **3:** 3, 10 **4:** 4, 7, 8, 14 **5:** 4, 16
6: 6

HISTORY: K: 2, 3, 5, 8 **1:** 1, 5, 13 **2:** 1, 2, 4, 5, 6, 7-10 **3:** 8 **VS:** 1, 2 **Geography:** 1, 2

LANGUAGE ARTS: K: 1, 2, 3, 5, 6, 8, 10, 11 **1:** 2, 3, 8, 12 **2:** FFR, FFW, DSR, RI, RL, RV, W, C, R **3:** 1 **4:** 1
5: 1 **6:** 1 **7:** 1

ART: K: 2, 3, 5, 7, 13, 15 **1:** 1, 4, 5, 9, 12, 13, 15, 17 **2:** 5, 6, 9, 15, 17 **3:** 1, 4, 5, 7, 12 **4:** 1, 3, 5, 11
5: 1, 5, 7, 9, 11 **6:** 7, 9 **7:** 9, 10 **8:** 9

21st CENTURY SKILLS

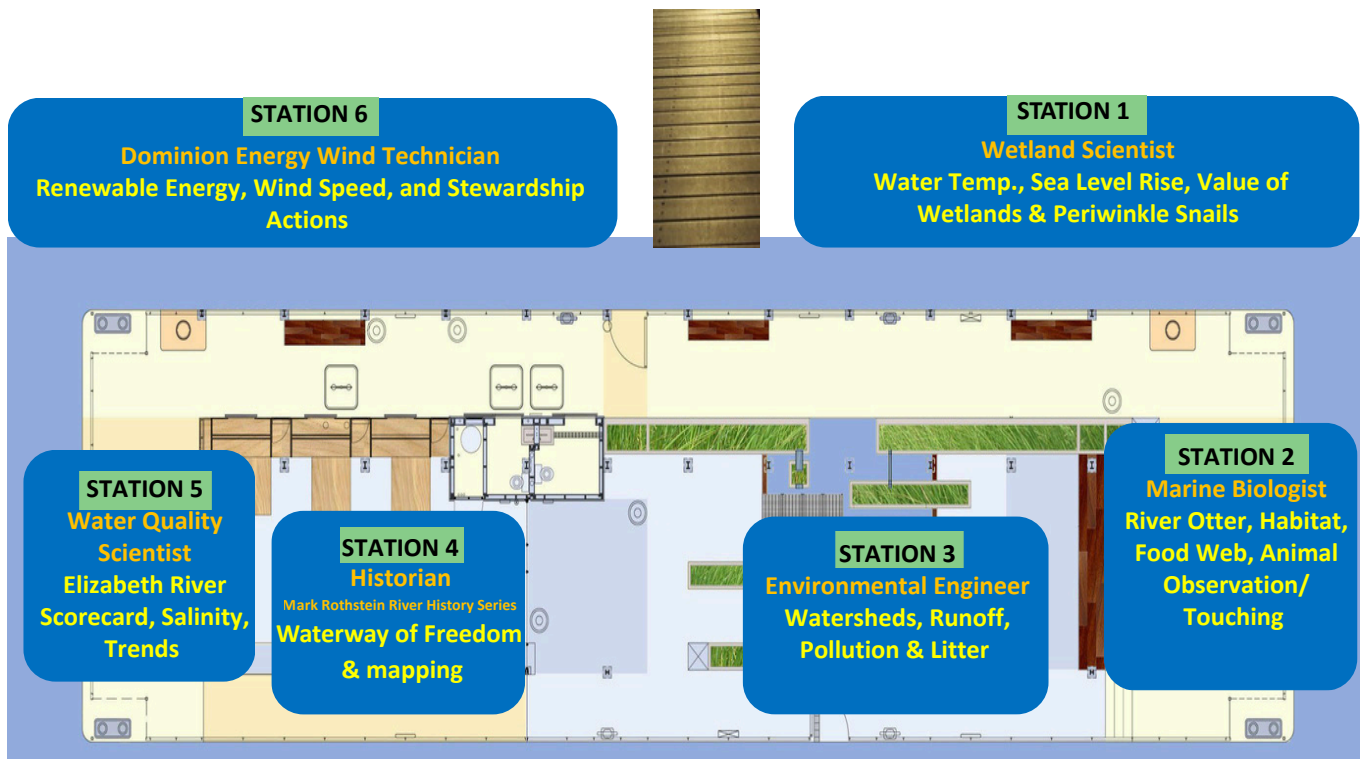
Students rotate through six multidiscipline learning stations that:

- are designed to excite youth about their home river;
- offer an opportunity to discover and explore;
- are research-based utilizing real-world restoration projects;
- utilize critical thinking and problem-solving to stimulate senses and spark curiosity;
- foster a generation of stewards empowered to care for the Elizabeth River.

The curriculum aligns with Virginia Standards of Learning in science, language arts, math, history, and art. Each student receives a personal databook—available in Spanish upon request—which serves as a visual aid and a place to record observations, answer questions, and reflect on their learning. Throughout the program, students engage in hands-on investigations: exploring, analyzing, mapping, collecting data, identifying species, making predictions, and comparing results. The experience begins with a guiding research question and concludes with thoughtful reflection, reinforcing key academic concepts through real-world environmental exploration.



6 LEARNING BARGE STATIONS



LEARNING STATION SUMMARY

Students investigate: *“How has the Elizabeth River changed over time, and what can I do to help?”*

Wetland Scientist

Water temperature, sea level rise, value of wetlands and periwinkle snails: Students explore the question: “Sea level rise can impact wetlands by _____.” They’ll investigate how and why wetlands along the Elizabeth River have changed over time and why these habitats are so valuable. Through hands-on activities, students will measure water temperature with thermometers and learn how warming waters contribute to rising seas and wetland loss. They’ll also meet a small critter that depends on healthy wetlands and discuss how Wetland Scientists are working to protect and restore these vital ecosystems.





Marine Biologist

River otters, habitats, food webs, and animal observation/touching: Students explore how the Elizabeth River’s ecosystem and habitats have changed over time, investigating the question: “What happens to the food web if a species disappears?” They’ll learn “who eats what” and discover how the river otter serves as a keystone species in the local food web. Through hands-on activities, students will observe live critters caught by Learning Barge educators and explore the role of Marine Biologists in protecting habitats. They’ll also learn how they can help conserve the river’s wildlife.

Environmental Engineer

Watersheds, storm drains, marine debris, and bacteria: Students explore how runoff and pollution impact the Elizabeth River and how watersheds play a role in transporting pollutants. They’ll learn how stormwater carries trash and bacteria into the river, use tools to collect litter, and investigate how long plastic takes to break down. Students will also test for bacteria and discover how simple actions—like “scooping the poop”—can make a big difference. Guided by the Learning Barge’s Environmental Engineer, they’ll leave empowered to help protect their local waterways.



Historian: Presented by the Rothstein River History Series



Discover how the Elizabeth River offered freedom: Students will explore the geography and history of the Elizabeth River, locating key areas such as the Atlantic Ocean, Chesapeake Bay, and the river itself on a globe. They’ll gain a foundational understanding of the river’s rich past—from the Native American presence to the arrival of English settlers and Africans. The program highlights the river’s vital role in the pursuit of freedom, including its significance as a pathway in the Underground Railroad. To conclude, students will be invited to take a pledge to become lifelong stewards of the river and its legacy.

Water Quality Scientist

Elizabeth River Scorecard, salinity, and recognizing trends: Students will learn how the Elizabeth River's water quality has changed over time by analyzing river scorecards. They will learn the importance of measuring water quality while using real water quality tools to measure salinity. Students will answer, *"What factors can change the salinity of the Elizabeth River?"* Students will use graphs to interpret data, and learn how Water Quality Scientists help the river.



Dominion Energy Wind Technician



Renewable energy, wind speed, and stewardship: Students will learn the difference between renewable and nonrenewable energy while looking at real solar panels and wind turbines aboard the Learning Barge, powered solely by energy harnessed from the wind and sun. They will learn about Dominion Energy's offshore wind project being built off the coast of Virginia Beach, how wind turbines work, and how to measure wind speed with an anemometer. They will discover ways to reduce their energy consumption and answer, *"What is the largest source of Renewable Energy in the United States?"*

**Thank you to The Blocker Foundation, our lead funder,
and all the generous donors who keep the Learning Barge a float.
Without your help, none of our learning programs would be possible.
Do Something Beautiful. Support the Learning Barge today.**

**The Blocker Foundation
Batten Educational Achievement Fund of Hampton Roads
Chesapeake Bay Trust
Cox Foundation
Dominion Energy
Elizabeth River Project
Mark Rothstein River History Series
National Fish and Wildlife Foundation**

**Norfolk, Portsmouth, Chesapeake & Virginia Beach
Public Schools
Richard and Caroline Gwathmey Memorial Trust
Roaring Brook Family Foundation
Virginia Beach Community Grant
Virginia Pilot Association
Virginia Environmental Endowment**

The Maintenance Advisory Committee's generous in-kind support keeps our barge floating!

**BAE Systems - Norfolk Ship Repair, Fairlead Ship Repair,
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Coastal Services, Crofton Industries & Diving, Earl Energy, Inc.,
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and Phoebe Crisman, Solar Services, Inc., Virginia
Ship Repair Association, Yacht Systems Services**