



Student Estuary Exploration Program Packet



DELAWARE CENTER FOR THE
INLAND BAYS
Research. Educate. Restore.

About the Center

The Delaware Center for the Inland Bays (Center) was established by the Delaware General Assembly as a nonprofit organization in 1994. It is also 1 of 28 National Estuary Programs in the country. The Center's mission is to preserve, protect, and restore Delaware's Inland Bays and their watershed. More information about the Center can be found at inlandbays.org.

Education Program Overview

The Center is redefining the classroom by turning the meadows, maritime forests, beaches and salt marshes of the Inland Bays into interactive, outdoor learning resources for students. The Student Estuary Exploration (SEE) environmental education program consists of fun, informative, and hands-on learning opportunities for students of all ages. The goal is to increase student environmental literacy—defined as “an individual's understanding, skills and motivation to make responsible decisions that considers their relationships to natural systems, communities and future generations”—through nature-based learning¹. Environmental education improves academic achievement, encourages environmental stewardship, deepens personal development and wellbeing, and strengthens communities².

Established in 1999, the Center's youth education program has served over 20,000 students. Programs are offered free of charge to all schools and youth groups (e.g., clubs, community youth groups, scout troops, after school centers, etc.). The inquiry-based activities are aligned with Next Generation Science Standards and offer three-dimensional learning instruction that includes disciplinary core ideas, Science, Technology, Engineering, Art, & Math (STEAM) practices, and crosscutting concepts. A fundamental component of the lessons is the incorporation of outdoor science activities offered by the Better Environmental Education, Teaching, Learning & Expertise Sharing project (beetlesproject.org) which is supported by current pedagogy about how people learn.

Program Location & Format Options

SEE programs primarily take place outdoors at the James Farm Ecological Preserve located at 30048 Cedar Neck Road Ocean View, DE 19970. This 150-acre property has

¹ <https://oelp.oregonstate.edu/oelp-plan/what-environmental-literacy>

² <https://www.neefusa.org/education/benefits>

seven different habitats including: maritime forest, meadow, freshwater wetlands, salt marsh, tidal flats, beach, and the Indian River Bay. More information about the Preserve and a site map is available online at:

inlandbays.org/projects-and-issues/all/james-farm-preserve/.

Programs range between 2-6 hours in length. Center environmental educators deliver lessons that encourage students to explore the diverse habitats on site while recording their observations, identifying terrestrial and aquatic species, and generating solutions to reduce negative human impacts on local ecosystems. Prior to departing, students will be guided through an interactive sketchnote/mind map activity to review and share lessons learned as a group.

In addition to programming held at the Preserve, the Center offers virtual and off-site learning opportunities to accommodate diverse group needs. All programs may be customized to complement current classroom lessons and/or group interest.



Booking Process

Contact the Center's Manager of Environmental Education (Manager) to schedule a program. Please note that dates are offered on a first come, first serve basis. During this process, you will also work with the Manager to select the appropriate activities that meet your learners' needs. All programs are offered free of charge, but donations

are graciously accepted to help offset costs. The lead teacher will also receive electronic pre and post-program surveys. Feedback provided through these brief surveys is voluntary and will assist the Center in evaluating the success of the SEE program. The pre-program survey also allows teachers to request additional accommodations (e.g., beach wheelchairs, translation services, water shoes, etc.) to help make programming more accessible.

IMPORTANT: Prior to arrival, a parent/guardian of all program participants under the age of 18 are required to sign the Center's waiver.

Inclement Weather & Cancellations

Programs at the Preserve take place outside. In the event that inclement weather is predicted and poses a risk to the safety of staff and participants (e.g., wind advisory, heavy rain, lightning, flooding, heat advisory, poor air quality, tornado, snow, ice and hail, temperatures below 45 degrees, etc.), programs will be canceled a minimum of 24-hours in advance. However, the continuation of programs during light, intermittent rain conditions is per the discretion of the Manager and lead teacher.

If you need to cancel a program for any other reason, please contact the Manager as soon as possible. Cancellations must be made at least 24-48 hours in advance (latter is preferred if possible).

Safety & Group Sizes

Safety is always a priority of the Center. Lead educators are CPR/AED & First Aid certified. At the Preserve, educators carry a first aid kit at all times in case of an emergency. Swimming is NOT permitted at any time during programs.

The Center follows the 1:15 adult to child ratio for school-aged children (kindergarten and higher) as outlined in the State of Delaware's DELACARE Regulations for Early Care and Education and School-Age Centers. Please keep this in mind as you are making preparations including chaperones. A maximum group size of 60 students is recommended, but Center staff will do their best to make special arrangements for larger groups if needed.

The Center strives to make programs at the Preserve a positive experience for all participants. Educators will communicate rules and expectations to groups upon arrival

and will rely on assistance from teachers and chaperones in regards to student discipline.

What to Expect at the Preserve



Parking

There is ample parking available in the Preserve's main lot. However, in the event that all spaces are taken, overflow parking is located in the field across the street from the main entrance. If you will be traveling by bus, there is a designated bus parking area in the main lot.



Restrooms

There are two single-stall, ADA-compliant restrooms on site.

Wooden benches are located near the restrooms for groups to take a snack/lunch break. Please note that the Preserve is a carry-in/carry-out property, so you will be asked to take your trash with you.

No potable water is currently available.



Terrain & Mobility

Participants will travel along unpaved paths including dirt trails, wooden boardwalks, grassy meadows, marshes, and sandy beaches. While the terrain is predominantly flat, there are tree roots, mud, sand and water present. Groups will walk up to 2 miles during their field trip. If requested in advance, the Center will coordinate wheelchair services. *Note: At this time, wheelchairs are provided by a third party and availability is limited.*



What To Wear

- Dress for the weather - it is typically windier and cooler at the beach than it is at home
- Secure, closed-toe shoes that can get wet and dirty/sandy
- Participants may wade through shin or thigh-deep water. Shoes must stay on. Limited water shoes and chest waders are available upon request.



What to Bring

Each participant is HIGHLY advised to bring:

- Change of clothes & shoes
- Refillable water bottle
- Snacks/lunch
- Sunscreen
- Bug repellent
- Sunhat & sunglasses
- Raincoat (weather dependent)
- Warm hat & gloves (season dependent)

Get to Know the Center's Educators!

Jackie Knoll, Manager of Environmental Education

Jackie grew up outside of Philadelphia, Pennsylvania and received a degree in Environmental Studies from Skidmore College in upstate New York. Since graduating from college, she has worked in the environmental education field for a number of different organizations before joining the Center in September of 2021. In her free time she likes to fish, explore local parks, watch Philadelphia sports and do crossword puzzles.



Maddie Fox, Environmental Education Specialist

Maddie grew up outside of Baltimore and earned a degree in Environmental Science from Stevenson University. In college she worked as a naturalist for a nature center in Middle River, Maryland taking care of animals and leading educational programs. She spent a lot of time at the beach and finally moved to Delaware to join the Center in August of 2022. In her free time she likes to go to the beach, travel, and paint.



Direct all inquiries to Jackie Knoll, Manager of Environmental Education (jknoll@inlandbays.org; 302-226-8105 ext. 708).