

**FREE  
PROGRAM**



**29th Annual**

**Northern NJ  
Middle Schools (Grades 5-8)  
Wednesday or Thursday  
May 17th or 18th  
2017  
Sandy Hook, NJ  
9:00 AM - 12:30 PM**



**Application  
Below**

**Deadline:  
March 31, 2017**

**Science Can Be a Day at the Beach**

# A Seaside Symposium: Student Summit 2017 Activities

## Student Activities Overview

### Introduction to *Limulus*

The Symposium will begin with a presentation about one of NJ's unique and ancient marine animals, the horseshoe crab (*Limulus*). Students learn about the life history of this species that pre-dates the dinosaurs, the myths about this animal, its role in the ecosystem, the biomedical and economic importance to humans, and how we have impacted the species. Students will be shown the proper way to handle the horseshoe crab to get a closer look at this valuable species.

### Environmental Roundtable Extravaganza

The roundtable portion of the Student Summit includes an interactive series of work stations with a variety of hands-on activities for students to learn about the environment. Some of the topics covered may include meteorology, marine invertebrate anatomy and identification, and nonpoint source pollution.

### Field Workshops

**Schools and classes will be divided and students will participate in one of the field activities. The goal is that each school will have students who have attended all field workshops.** Examples of workshops include:

#### **Marine Water Quality Monitoring**

Monitoring of surface water quality is an important source of information used by scientists and environmental managers to characterize water resources, identify water quality problems and trends, and develop water quality management strategies. Participating students will learn about the water quality approach to aquatic resource assessment by collecting and analyzing water samples.

#### **Birds of the New Jersey Shore**

New Jersey is within the Atlantic Flyway, providing a diverse viewing of coastal birds throughout the year. Students will join local birding experts in a survey and identification of coastal birds as part of their workshop.

### **Seining and Marine Animal Identification**

New Jersey's estuaries offer a variety of habitats as important breeding, feeding, and nursery grounds for a diversity of fish and invertebrate species. Many of these species spend only a part of the year in area waters, while other species reside year-round within certain coastal habitats. Students will use seine nets and sieves to collect fish and invertebrates to observe, identify, and release marine animals commonly found in the local bays.

### **Understanding Marine Debris**

Marine debris includes trash and other objects that get into the marine environment as a result of careless handling and disposal. The problem of marine debris has emerged as a critical environmental issue worldwide. Debris in the marine environment is not only aesthetically unpleasant, but it can harm marine life and litter the shore. Students will learn about the types, quantities, and sources of marine debris plaguing our coastal region and participate in a cleanup.

### **Barrier Beach Profiling**

Waves, wind, and currents shape New Jersey's barrier beaches. As a result of these forces, beaches are dynamic, ever-changing environments. By making a beach profile, students will understand sand distribution, beach zones, and tidal water levels. Graphing their results allows students to understand beach topography, the importance of the natural environment, and the impacts of storms, such as Superstorm Sandy, on the NJ coastline.



Clean Ocean Action's  
29th Annual Spring Student Summit

**Terms of Participation:**

The program is **free** to all participants. However, **schools must provide their own transportation and lunches**. To ensure a commitment from your school, a **refundable deposit of \$100** must be sent with the application. The deposit will be returned upon your completion of the post-Summit evaluations. Space is limited. Therefore, COA has established the following guidelines. **In submitting this application, you understand and agree to the terms of participation:**

- ◆ Maximum number of students from each school is **30**.
- ◆ Students, teachers, and chaperones are assigned to workshops in the Summit. **Students and chaperones will be separated and divided among all field trips so that each school will have students who have attended all activities. Students and chaperones will be mixed with other schools. No exceptions will be allowed.**
- ◆ **Arrival time is by 8:45 am sharp. Departure time is anytime after 12:30 PM. If schools are unable to arrive promptly at 8:45 am, schools should not apply. Late arrivals may be put into a modified program.**
- ◆ Schools are responsible for their own transportation to and from the Summit.
- ◆ All students, teachers, and chaperones must bring their own lunch. Facilities to buy lunch are not available. Light snacks and drinks will be provided by COA.
- ◆ Schools must bring **1** chaperone/teacher per **10** students. **Chaperones will be required to assist in monitoring students from all schools during the Summit. Teachers, please pass along these terms to all chaperones!**
- ◆ COA reserves the right to exclude or limit participation to anyone whose behavior or dress (see *below*) is inappropriate or disruptive to any student's learning experiences.
- ◆ Teachers and students must demonstrate a desire to learn about the marine environment (see *application*).
- ◆ Participation is limited to a total of **500** students each day.
- ◆ Students must bring their own pencils and clipboards.
- ◆ COA will provide schools with bags for their trash (black) and recyclables (white) for lunch. Schools must leave the park with their garbage bags and bring them back to school for proper disposal. The park has a "carry in, carry out" rule.
- ◆ Students, teachers, and chaperones may be photographed or filmed by COA during the Summit. Teachers must notify COA before the Summit if any student(s) cannot be photographed. Students who cannot be photographed must complete a Non-Permission Release Form, and the teacher must present it to COA staff upon arrival.

**About the Summit:**

The Student Summit expands learning beyond the classroom. It is designed to provide middle school (Grades 5-8) students who come from different areas of the state with an opportunity to experience hands-on, marine environmental education at the Jersey Shore. The activities included in the Summit have been selected to present students with an interdisciplinary marine and environmental education experience.

**Who can apply:**

**Schools located in Northern NJ Counties**

Sussex, Warren, Hunterdon, Mercer, Monmouth, Middlesex, Somerset, Union, Essex, Hudson, Bergen, Passaic and Morris.

**Summit Location:**

Gateway National Park—Sandy Hook, NJ.

**How To Apply — Three Easy Steps**

**Step 1: Agree to Terms of Participation**

Carefully review the terms listed in this brochure. They work to ensure all participants have a productive day. Send a signed copy with your application.

**Step 2: Complete Application Form**

Complete the application form. Mail form (with refundable deposit) *to be received by Clean Ocean Action by **March 31, 2017***.

**Step 3: Send Application with \$100 Refundable Deposit to:**

Clean Ocean Action, "Student Summit," 18 Hartshorne Drive, Highlands, NJ 07732. You will be advised about participation as soon as possible after the deadline. In the meantime, we suggest you make bus reservations and arrangements, and that you receive the necessary approval from your school.

**Costs/Refund:**

The program and all materials are **free**. To ensure a commitment from your school, a refundable deposit of \$100 is required with your application. **The deposit will be returned upon your completion of the post-Summit evaluations. All evaluations should be returned by the end of May.** Transportation and lunch must be provided by participants.

**Dress Requirements:**

Coastal locations are usually cold and windy. Advise the students to dress according to the weather, bring additional layers of clothes, and wear sneakers or hiking shoes. COA reserves the right to exclude or limit participation to anyone whose dress is inappropriate.

**Weather Advisory - No Rain Date**

Appropriate outerwear is mandatory; noncompliance may result in the student's participation being restricted by staff. In the case of *extreme and dangerous* weather, the event will be cancelled. Otherwise, **the event is held outdoors rain or shine.**

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Gateway National Park – Sandy Hook, NJ  
Applications accepted through **March 31, 2017**

**Costs/Refund:**

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**School name:** \_\_\_\_\_

**Teacher Name:** \_\_\_\_\_

**I understand and have initialed the Terms of Participation.**

**Teacher Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

*Please return this initialed Terms of Participation with your application.*

**SPRING 2017 STUDENT SUMMIT APPLICATION**

**Wednesday or Thursday, May 17th or 18th**

Teacher/Advisor Name \_\_\_\_\_

School \_\_\_\_\_

Address \_\_\_\_\_

City/Town \_\_\_\_\_

Zip Code \_\_\_\_\_ County \_\_\_\_\_

School Phone # \_\_\_\_\_

Teacher Phone # \_\_\_\_\_

Fax # \_\_\_\_\_

Cell Phone # (Day of Summit) \_\_\_\_\_

Email address \_\_\_\_\_

**Number of Students (30 maximum) \_\_\_\_\_ Grade Level(s) \_\_\_\_\_**

**Number of Teachers *and* Chaperones (1 per 10 students) \_\_\_\_\_**

**Preferred Day—Please Circle: Wednesday or Thursday**

***Space in the program is limited. Acceptance into the program is determined based on the answers to these important questions. Attach more pages if necessary.***

Describe how you integrate environmental education into your curriculum.

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If environmental education is not a component of your curriculum, briefly discuss how the Student Summit could assist your educational needs.

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What will you do with lessons learned at the Student Summit?

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I have reviewed and agree with the Terms of Participation.

**Complete and return this application along with \$100 refundable deposit and signed Terms of Participation by March 31st to: Clean Ocean Action, Student Summit, 18 Hartshorne Drive, Suite 2, Highlands, NJ 07732**