



**MICRO MATTERS**

Level: Grades 9-12 **ADVANCED ONLY**

Cost Per Student: \$40 (no meals included)

***This trip is a one day hands-on inquiry based program that does NOT include water based activities (i.e. students will not be on a boat or in the water).***

8:30 AM	Arrival and Facility Orientation
9 AM – 10 AM	Lab: Water Quality
10:15 AM- 12:15 PM	Discussion and Lab: Harmful Algae Blooms
BAG LUNCH FROM HOME	
1:30 PM – 3:30 PM	Lab: Diversity Indexing
3:45 PM – 4:45 PM	Lab: Microplastics

This program is for **advanced high school students**; the labs are geared towards **AP Environmental Science students** and require intensive microscope work. On arrival, students will be given a brief orientation of the facility before a water quality lesson. Students will understand the meaning of 5 water quality parameters, gain experience using tools to collect these measurements, be able to make sense of the data and connect the importance of the abiotic with the biotic. Next students will further make these ecological connections by discussing harmful algal blooms. Students will analyze water samples to identify phytoplankton and make sense of their observations.

After lunch, students will participate in the Diversity Indexing Lab. During this lab each pair of students closely analyzes a live rock collected from nearby inshore waters. Each species of invertebrate is identified and abundance is recorded in an effort to determine a diversity index. The meaning behind the calculations are discussed as well as relation to real world situations. After a brief break, students will return to the lab to analyze water samples in an effort to learn more about microplastic pollution. Students will categorize and count microplastics; sources, impacts and solutions to the plastic issue will be discussed.

AVAILABILITY: November, December, January and February

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