



## **Ocean Literacy After-School**

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Ocean Literacy is a topic that is often underrepresented in secondary school science curriculum. To combat this deficit, our School has partnered up with Hudson River Community Sailing (HRCS), a local organization in New York City that offers an after-school program to high-need high school students in the surrounding community. This organization has developed a 9th grade Sail Academy which allows students from participating public high schools to increase their proficiency in math and science by learning basic sailing, navigation, and boat building. Upon successfully completing the 9th grade Sail Academy curriculum, students enter the “First Mates Program” which offers a scaffolded set of youth development experiences that prepare students for college, career, leadership, and stewardship. This program is built in the context of a new Ocean Literacy Curriculum focused around 3 major topics within Ocean Literacy: Marine Debris, Meteorology, and Ecology (specifically water quality). The learning experiences include weekly data collection of marine debris, weather conditions, and water quality testing in the Hudson River adjacent to the HRCS Boathouse. Additionally there are weekly lessons engaging students in the fundamentals of each of the 3 topics and how they are also important in the lens of sailing. During the marine debris portion of the curriculum students identify sources of marine debris, impacts on the local environment, and study how debris can travel along the ocean currents leading in to larger garbage gyres. To supplement the curriculum, students embarked on a day trip to the Newtown Creek Wastewater Treatment Facility in Brooklyn, NY to learn how and where NYC receives its drinking water, how wastewater is treated, and how water quality in the local area can be easily influenced. While on the trip, students did their data collection of marine debris, weather conditions, and water quality testing at Newtown Creek, and then they compared their results that same day to data collected at the HRCS Boathouse along the Hudson River.