

Marine Debris Program

Grade Level: 7th grade and above

Summary: Marine debris is one of the most widespread pollution problems facing the world's oceans and waterways. This is a half day program that encompasses a classroom discussion, boat trip and mangrove cleanup and data analysis. In the classroom, marine debris is defined and impacts and solutions to the issue are discussed. Students will go out on the water for a cleanup and return to MarineLab to collect and analyze data. All data will be submitted to Mote Marine Lab and entered into MarineLab's in house database.

Program Objectives:

- Make students aware of how large the marine debris issue currently is
- Provide students the opportunity to be a part of the solution by removing debris and providing scientists with marine debris data

Concepts Covered:

- Huge amounts of consumer plastics, metals, rubber, paper, textiles, derelict fishing gear, vessels, and other lost or discarded items enter the marine environment every day
- Anything man-made, including litter and fishing gear, can become marine debris once lost or thrown into the marine environment.
- Wind, gyres, and ocean currents all impact how marine debris gets around. Oceanic features can also help trap items in debris accumulation zones, often referred to in the media and marine debris community as "garbage patches."
- Wildlife entanglement and ingestion, economic costs, habitat damage and alien transport are some impacts of marine debris.
- Mote Marine Lab scientists are currently trying to attain more data on fishing gear debris in order to create an effective statewide action plan.
- There are solutions to the marine debris problem, including participating in a coastal cleanup.

Vocabulary: marine debris, gyre, microplastic, ghost fishing, current, garbage patch, derelict vessel, monofilament, hook/line/sinker, mineralization

Procedures: Discussion will define marine debris, discuss impacts on environment and solutions to the problem. Students will go out on the water for a cleanup. Upon return to MarineLab the students will work in groups to sort, weigh and measure marine debris collected to provide fishing gear debris data to scientists at Mote Marine Laboratory

Extensions: We can provide a "coastal cleanup" opportunity on most of our field trips where students can take time to pick up trash in the area. All data entered into MarineLab's database can be made accessible to teachers to use in the classroom.

Resources: www.mote.org, <http://marinedebris.noaa.gov/discover-issue>



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