MANY OPPORTUNITIES FOR SCIENCE-ORIENTED STUDENTS IN WOODS HOLE
by Deborah G. Scanlon

Living so close to major scientific institutions in Woods Hole, students who are interested in science have a golden opportunity to develop and explore their interests. But sometimes they need guidance and encouragement to take the initiative to pursue the available opportunities.

The National Marine Fisheries Service (NMFS), Marine Biological Laboratory (MBL) and Woods Hole Oceanographic Institution (WHOI) all have opportunities for high school internships or employment. And the Woods Hole Science and Technology Education Partnership (WHSTEP) will arrange for Lawrence school students to have a scientist mentor their science fair projects.

Jessica Freedman was a sophomore at Falmouth High School when she saw a poster that JC Weber of the MBL Ecosystem Center had sent to her chemistry teacher through the WHSTEP program. She started by working at the MBL two or three hours a week after school, then full time during the summer for the National Science Foundation’s Oceanic Flux Program, a deep ocean research study which Dr. Maureen Conte runs. Her duties include

Sandwich High School student Kenna Garrison and Falmouth High student Jessica Freedman work with Maureen Conte and JC Weber on the Oceanic Flux Program at the MBL Ecosystems Center in Woods Hole (Photo: JC Weber)
weighing samples, studying them under the microscope, and making chemical measurements using lab equipment.

Now Jessica, entering her senior year, is sure she wants to major in some aspect of biology.

Kenna Garrison of Sandwich High School, another high-school student employee who works for the Oceanic Flux Program, thought she would become an engineer. Now she is looking at “all the options.” “I like that it is independent work, with different experiences. I have become familiar with the way scientists talk, the names of the equipment. When I started my AP Bio class, I knew many of the concepts from my lab work.”

Mr. Weber credits his internship at WHOI in the 1980's with starting his career. "I grew up in western Pennsylvania and saw the ocean for the first time at the age of 14. When I went back to school that year, and was asked what I wanted to do when I grew up, I said marine biologist. Then I started contacting places like WHOI and asking about careers in marine sciences. Someone at WHOI thought I was applying for a job and sent me an application. I ended up with an internship, since I was only 15, and came up to Woods Hole for a month in 1988. Needless to say, it clicked! I wouldn't be here today if not for that internship."

The Conte lab has had 11 high school employees over the past 15 years, most of whom start when they are high school juniors and often continue working in the lab through college.

"The students learn basic skills that are useful in their classes - and in life: organizational as well as math and science skills, and the value of simple but important laboratory support jobs like cleaning glassware, which affects everything later in our analyses, said Mr. Weber. "The students continually build on what they learn and progress to do complex projects and run analytical instruments. They become highly trained, on a par with undergrads."

MBL has other positions for high school students. Interested students can check the laboratory's employment web site at http://www.mbl.edu/

The Woods Hole Science Aquarium of the National Marine Fisheries has both school year and summer programs for high school interns.

During the summer program, a joint program with MBL, the students learn about marine animal husbandry, aquarium operations, conservation, and public education. The interns are trained to serve as assistant naturalists on public collecting walks to Little Sippewissett Marsh, The interns also participate in the Careers in Marine Science Seminar, which can be a separate two-week internship, learning about occupations in marine science, take field trips to Nantucket and the New Bedford Whaling Museum. (http://aquarium.nefsc.noaa.gov/hsinterns.html)

The internship program offers no stipend, and students need to find their own housing. George Liles, Aquarium director and head of the program, says he looks for diversity in the
"We take kids from around the country, from public, private, parochial, charter, home schools. We believe the kids learn from each other." In the first nine years of the program, there have been 90 interns, said Mr. Liles. During the school year, there are several possible internship opportunities. The aquarium takes high school students after school care for turtles and other marine life. Volunteers are trained and must be willing to work at least a semester.

This past year one student from Barnstable High School came in for a full day, and worked in the aquarium. Another student from FHS came in four to five hours one day a week. These were arranged through the school counselors.

The Woods Hole Oceanographic Institution offers an informal volunteer internship program in which a limited number of college undergraduates and advanced high school students from the Upper Cape and Islands are accepted as Guest Students in the laboratories on a year-round basis. WHOI, http://www.whoi.edu/gueststudent/. WHOI also pays has summer employment opportunities for high school students. WHOI (http://www.whoi.edu/jobs/)