



All Photos Tom Kleindinst, WHOI

Girls Just Wanna Be Engineers

“Very few women go into engineering,” said Anna Michel, “because girls just don’t get the message that they could be engineers.”

Michel, a scientist in the Applied Physics and Ocean Engineering Department at Woods Hole Oceanographic Institution (WHOI), got the message, and she wants future generations to hear it louder and clearer.

As part of a research grant from the National Science Foundation, Michel created the GOES (Girls in Ocean Engineering and Science) Institute. The program, which began in 2016, brings in 12 girls who are about to enter the sixth grade and a science teacher for a week of activities. They toured WHOI to see deep-sea vehicles and to meet the engineers who built them and designed the sensors for them. On a field trip to Martha’s Vineyard, they investigated a salt marsh and learned about greenhouse gases and the effects of nitrogen pollution on marshes. They also explored wind turbines as alternative energy sources. At the Zephyr Education Foundation’s “virtual sandbox,” they observed the impacts of sea-level rise (right, middle).

Perhaps a highlight of the program is the chance for the girls to build their own remotely operated vehicles with Michel (right, top) and to test them in the flume at WHOI (top).

“Some of these girls had never used a drill before,” Michel said. “We create an environment in which they feel like they are not judged and encourage young girls to explore science, technology, engineering, and mathematics.”

—Lonny Lippsett

