

***Students Graduate STARBASE 2.0 Mentorship Program on Naval Base San Diego***

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Twenty-two 6th grade students, from Ira Harbison Elementary School, graduated from the Department of Defense STARBASE 2.0 program aboard Naval Base San Diego (NBSD) Feb. 22.

The goal of STARBASE is to excite at-risk children, from Title One schools, about science, technology, engineering and math (STEM) through hands-on activities in a relationship-rich, school-based learning environment, said Alice Micklesen, an instructor at STARBASE-Atlantis San Diego Academy.

STARBASE-Atlantis develops a relationship with the local school district and arranges for 5th and 6th grade students to attend. The academy is able to teach about 1,000 students a year, according to Micklesen.

"We try to get as many schools to participate as our facility will support," said Mickelsen.

All of the instructors try to make the course experience as memorable as possible.

"It's kind of like putting on a show to get them excited and imprint the experience on them," Micklesen said. "When they come through the door, they are so eager and that excitement is what their teachers can reference when they get back to the classroom."

There are two courses of the STARBASE program, STARBASE-Atlantis and STARBASE 2.0.

Fifth grade students go through the first course, STARBASE-Atlantis, which is five five-hour days totaling in 25 hours of tutelage.

STARBASE 2.0 is a course for 6th grade students that is more advanced and is a 90-minute, after-school mentorship program held one day a week for 13 weeks. Students design and build CO2 dragster race cars as a practical application of theories and concepts.

"One of the main emphasis' of the DOD STARBASE program is that there will be a critical lack of engineers, scientists and technicians in the future and that is why DOD is investing up front in the

beginning of the pipeline at the 5th and 6th grade level," said Nick Jordan, director of DOD STARBASE-Atlantis San Diego Academy.

Naval Base San Diego provides the facilities for STARBASE to have a classroom and they also provide a college-like environment for the children.

"They (students) get to see professionals going to work every day, going to school every day," said Jordan. "It's a great environment for these kids to be exposed to."

Students are brought on base to see Sailors, equipment, technology, tour ships, and experience people working together using STEM, said Micklesen.

"Some parents are concerned that this is a recruitment program for the military, but it is not at all," said Micklesen. "It is just an exposure for children to see technological advances, and people working with STEM in a real world scenario."

For the students in the STARBASE 2.0 course, mentors volunteer to explain and offer input on real-world applications such as design advice for the CO2 cars.

The ratio of students to mentors is two to one, which allows for more one-on-one discussion, and is something that the students would not get in a normal school environment, said Micklesen.

Mentors consist of volunteer Sailors and civilians from NBSD, U.S. Naval Air Systems Commands, and local engineers.

"When we are back in homeport, we have a second calling as Sailors, and that is being community servants," said Capt. Winton Smith, Naval Base San Diego's commanding officer. "To me, it is all about selfless service. Our Navy men and women, when not engaged in the away game, are here helping to develop our future scientists, engineers and mathematicians."

For the mentors, being selfless proves to be a rewarding occurrence.

"It was a fantastic experience," said Fire Controlman 1st Class Tom McGuffin, a mentor and Sailor from Center for Surface Combat Systems Detachment West San Diego. "It was really fun working with the kids and seeing them get excited. The fact that we had an actual end product, the cars, made them much more excited and it helped reinforce everything we had done."

Mentors and instructors help students grasp concepts like physics, laws of motion and experimental design when working on the CO2 car project. The hands-on approach, something they normally would not get in the classroom, is a unique experience, said Jordan.

Choice and creativity are also key components of the project. Students listen to input from mentors and instructors and apply the information to their designs.

The kids get a chance to use computer-aided design (CAD) software to digitally create their cars, and eventually produce the cars on a 3-D printer in ABS plastic, added Jordan.

At the graduation, students raced their cars to see whose was the fastest.

"It was so much fun and the mentors were great at making everything so easy to understand," said Sabina Borbon, student and winner of the race.