UC SANTA BARBARA
THE Current

July 16, 2014
Julie Cohen

Planting Seeds

Dancing around a marshmallow tower they built themselves, the children shouted: “Ten and a quarter! Ten and a quarter!” They marveled that their group’s tower was the tallest, but some of their sheer joy may have been fueled by the marshmallows themselves.

The group constructed the tower as part of the Summer Science Camp, where 8- to 12-year-olds come to get down and dirty in the name of science. Whether learning about bacteria, DNA and density or building gumdrop domes and dissecting squid, participants are having the time of their lives.

“I really like how you learn but you still have a ton of fun,” said Teagan Moehlis, 12, who has been to science camp three times before. “I liked collecting DNA the best. It was supercool!” Teagan is the daughter of Jeff Moehlis, a professor in the Department of Mechanical Engineering.

In 2011, the camp’s first incarnation was held in the backyard of Lina Kim, director of the Research Mentorship Program. That first year there were six children. The number doubled the following year and again last year. “It got so big that I couldn’t take all the students on the waiting list, so I decided to bring it to UCSB so I could reach out to more children during the summer,” she said.

The camp runs for three weeks in July and experiments are rarely repeated — even from year to year — because many of the kids come back. If they’re not making elephant toothpaste — colored foam produced by a chemical reaction — or

mousetrap race cars (both favorites from previous years), they're designing cradles and parachutes for eggs to survive a four-story drop. (At least two teams were successful.)

"My favorite activity this week was connecting gumdrops together with toothpicks and you only had a certain amount," explained Christopher Carmona, 12, who will be entering junior high in August. "Then we weighted them with pennies to see how well the structure was built and counted how many pennies it took to break apart. We got up to 200.**"**

Three scientists, who are UCSB students or recent graduates, oversee the activities. They are assisted by high school volunteers who earn community service hours for their week's work. "What makes this camp really special is that the kids get to learn science in a really fun way, in a good environment," said volunteer Amy Dixon, a junior at nearby Dos Pueblos High School. "I think it's important to learn science at a young age."

One of the camp scientists concurs. "My favorite thing is teaching the kids different concepts," said Amber Miller, who graduated from UCSB in March and will begin teaching next month. "It can be dirty and gooey but it's a hands-on experience and that's the best. The kids sing, play and run around, and they are so excited about getting messy and doing science."

When science camp kids have questions, Kim is likely to suggest that they try and see what happens instead of telling them the answer. "This camp is a little different because we let them take things apart and break things if they want to, so they can explore all the possibilities," she explained, adding that safety is always the primary concern.

The students keep a science notebook and are taught how to record scientific observations — something they will be able to use in the future, not just in junior high but in high school and college as well.

"My goal is to plant a seed and get the kids really excited about science," Kim added. "We do a lot of team-building activities and they learn how to collaborate with students from other schools. It's usually the first time that they are collaborating with someone who is enthusiastic about what they are excited about.

"I want to change the world one child at a time," she concluded. "It's kind of naïve, but I see the changes in these kids. I hope I am inching closer to that goal."

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.