THE FACULTY CORNER

FROM THE ANACAPA SCHOOL SCIENCE AND TECHNOLOGY DEPARTMENT . . .

The Anacapa Science and Technology Department is expanding in some exciting ways this year. In addition to this semester's more traditional science classes (Physical Science in the Lower School and Chemistry and Conceptual Physics in the Upper School), students also have an opportunity to apply new concepts in two new innovative class offerings—Lower School Robotics and the Upper School STEAM Lab. Hands-on activities are a very popular part of both of these afternoon electives as students and teachers work on real-world applications and problems.

LOWER SCHOOL ROBOTICS

I am really excited about the new Lego robotics class that some of our Lower School students have signed up for this fall. We have 10 students who have decided to learn about programming robots, community service, and teamwork! As the instructor for the class, I am basically a facilitator who asks leading questions, allowing the students to discover solutions to the tasks and problems at hand. After several weeks of practice and challenging head-to-head battles between our two teams of five students each, we will take the next step and compete in a tournament with other schools. Whether you're a parent of a student in the class or not, you are invited to come support us in any way. If you have any expertise in the area of robotics and want to lend a hand, please let me know.

~ Bryan Anderson

UPPER SCHOOL STEAM LAB

The new STEAM Lab course I'm offering this year combines **S**cience, **T**echnology, **E**ngineering and **M**athematics plus elements of **A**rt (the "A" in STEAM) into a discovery-learning laboratory. Students are learning basic electronics theory and gaining experience with circuits and electrical engineering, "Arduino" microcontroller programming, and computer programming while creating, building, and sometimes breaking gadgets and gizmos along the way.

Like many great scientists and inventors, the students will document as much as they can about the process of creating along the way. They will make extensive engineering notes, document all of their experiences on video, and even keep video and handwritten journals to remind them of what worked and what didn't. Students will be asked to incorporate art and design into their engineering projects as they learn to appreciate both form and function. By the end of the year, students should have the tools to begin creating their own electronics projects and inventions. What makes this course unique is that students will focus on engineering as an art, learning about the societal impacts of new technologies.

~ Levi Maaia

Editor's Note: In addition to being a teacher at Anacapa, Levi is also a student himself at UCSB's Gevirtz Graduate School of Education. His research there focuses on integrating emerging technologies into Science, Technology, Engineering and Mathematics (STEM) education. As part of the STEAM Lab course, Levi and the students will become co-investigators gathering data about the projects they are working on as part of a special cooperative effort between UCSB and Anacapa. At the end of the school year, some of the data collected from this course will become part of an education research project at the University!