

# Dedicated to enriching STEAM education in SACRAMENTO

We at Carollo are passionate about teaching young people that science and technology is in everything we do, every day.



We advocate for investing time and resources in **STEAM** education as one of the most effective ways to build a secure socio-economic environment for everyone.

We feel that it is everyone's job—not just teachers—to spark a sustained level of excitement for science and engineering in the minds of young people.

We subscribe to the principles of selflessly giving back to youth as a way to ensure our community's growth potential and quality of life.

We lead by example in developing partnerships and initiatives that will advance this cause and compel our youth to become engaged in their communities.

The Carollo Cares Program is our commitment to helping our clients and communities educate students and young people about water-related issues, with the hope of encouraging future generations to implement solutions that strengthen the resiliency of our environment and water supplies.

## SACRAMENTO STATE CIVIL ENGINEERS

Carollo Engineers has partnered with the Civil Engineering Department at Sacramento State University to create an environment where students are exposed to real world engineering projects through guest lectures, facility tours, as well as by teaching classes and labs at the University.



As part of this long-standing relationship, Carollo's Sacramento staff have assisted with the Civil Engineering Department's Senior Capstone Design class. In this class, students formed consulting teams, completed conceptual designs, and evaluated alternative solutions under the realistic constraints of real world engineering projects. Carollo provided mentoring and technical resources for the class, developing the curriculum around a real world water treatment plant project for the City of Sacramento.

## SACRAMENTO REGION MATHEMATICS, ENGINEERING, AND SCIENCE ACHIEVEMENT PROGRAM



Hundreds of middle and high school students attended the annual MESA Day (mathematics, engineering, and science achievement) at UC Davis, a day of competitions in science, technology, engineering, and math (STEM).

(continued)

Carollo engineer Felicia James, who participated in MESA when she was in a Sacramento high school, served as a judge at a prior event. Ms. James was impressed with the complexity of the design challenges. She served as a judge for a prosthetic arm design challenge in which four middle school and four high school groups competed. Teams were supplied with a circuit board to program their device and challenged to build the prosthetic arm with a budget of \$80. Teams then used the prosthetic arms to complete tasks like throwing beanbags, picking objects up, and other fine-motor skill tasks. Finally, teams submitted a paper and gave a presentation on their project. We look forward to continued involvement with MESA.

### TREATMENT PLANT TOURS FOR STUDENTS

Carollo staff regularly organize and lead student tours of local water and wastewater treatment plants. Most students have never been exposed to, or even thought about, how their water and wastewater is treated, the environmental and human protection that these treatment plants provide, or the expertise needed to design, construct, and operate these facilities. Tours have been given to a wide range of students from early elementary school to high school and college students in an effort to interest them in technical career pathways that are involved in these facilities.

### LOOKING FORWARD WITH CAROLLO CARES



Water is our most valuable resource - it sustains life, maintains healthy ecosystems, and supports thriving communities. Carollo is committed to continued involvement in STEAM and the education of our local youth about the importance of clean water systems and their impact on the environment.

In the future, Carollo will continue to explore opportunities where we can inspire our youth and add value in our communities.

Carollo Cares is part of Carollo's corporate commitment to giving back to the areas we serve. Through this program, we can be responsive to each community's unique needs, benefit our employees, and provide educational opportunities that align with our mission of Working Wonders with Water®!



VISIT US AT: carollo.com/community/carollo-cares