

## **OVERVIEW OF THE STEM SUMMER LEARNING LABS**

Since 2016, STEP has conducted annually at no cost for attendees, three and now four week-long STEM Summer Learning Labs for 50 to 60 high school students per week. Teacher-recommended 8th grade students are also welcome to participate in these STEM Summer Learning Labs.

These programs are in partnership with the Riverside Unified School District and the City of Riverside. STEP conducts STEM in Law Enforcement and Public Safety (STEM LEAPS) - Police and Fire, with the Riverside Police Department and the Riverside Fire Department. In 2018 we added STEM in Public Utilities Learning Labs (STEM PULL) in partnership with Riverside Public Utilities.

In 2020 and 2021, we had to replace STEM In Law Enforcement and Public Safety, because the Riverside Police and Fire Departments had to focus on the front-lines in the battle against COVID-19. STEM LEAPS was replaced by STEM SOLUTIONS, which challenged the students to improve the health and safety of our community during COVID-19 through STEM. During COVID, we also began a new virtual program, STEM in Advanced Manufacturing (STEM I AM), to demonstrate career opportunities, in partnership with local manufacturing companies.

Beginning this summer of 2022, we are excited to utilize the online tools and programming we developed during 2020 and 2021 to offer each of our four STEM Summer Learning Labs in a hybrid format, with about 60 students attending in-person and another 15 to 30 students attending online from the more remote areas of Riverside and San Bernardino Counties. Our STEM Public Utilities Learning Labs will be held the week of July 11, 2022. The week of July 18, 2022, STEM In Law Enforcement and Public Safety -- Police and Fire, will be conducted in parallel with our STEM In Advanced Manufacturing Program. Finally, our STEM Solutions program will be held the week of July 25.

For each of these week-long programs, students are randomly assigned to teams of 4 or 5 students. On Monday, the students learn about the "We Are All Designers" process which includes how to gather information about various career opportunities, discuss how STEM impacts the careers, brainstorm ways to utilize STEM to improve the safety and effectiveness of a selected career, develop a Design Challenge Project to implement the improvements and create and present a Design Challenge Proposal to a panel of judges. On Tuesday and Wednesday of each week, the students meet with resources in various careers related to the focus of the week and ask questions about their careers and how their jobs could be done more safely and effectively using STEM. On Thursday the students brainstorm and develop their proposed Design Challenge Project and create their Design Challenge Presentation. On Friday all the teams present their Design Challenge Presentation to a panel of judges, with the first-place team sharing \$1,000 in scholarship funds, second-place sharing \$750 and third-place sharing \$500. The students in Riverside Unified School District receive 5 units of elective credit for successfully completing each week's program to a maximum of 10 units and their participation in the STEM Summer Learning Labs is a valuable experience to include in college applications and resume's for seeking jobs. We encourage students to return the next summer to participate in programs they did not already take or to serve as student mentors for the younger students.

04/29/2022 GB