

On July 21, 2023, the General Atomics Sciences Education Foundation announced awards of \$56,700 in funding to 9 organizations and programs to improve K-12 STEM education.

1. \$5,000 to Ocean Discovery Institute for their In-School Marine Education program

Funding will support their free in-School program in the low-income area of City Heights. Students participate in: (1) a classroom learning experience, (2) a field visit to a coastal habitat, and (3) a session at the Living Lab. During every visit to their Living Lab, students meet program alumni and a STEM professional to gain exposure to a variety of STEM careers. Funding for the In-School Program would support staffing, materials, and equipment needed for program activities. In 2022-23, their In-School Programs will serve 6,000 students from kindergarten to 8th grade. 91% of students served are eligible for federal free or reduced meal programs. In their In-School Program, they saw 63% of 3rd-5th grade students demonstrate a belief that they can do science and become a scientist, notable for a community where less than 6% of residents enter science and science-related careers. Ocean Discovery has been recognized with the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring.

2. \$5,000 to Girls Rising for their Mentorship program

Girls Rising provides mentorship for at-risk girls in San Diego between the ages of 8-17. Thanks to GASEF, in 2022, they were able to provide more STEM-related activities and see immediate interest and excitement from the girls. Funds will be used for partnering with Unified E-sports to expose the girls to the enormous amount of STEM career opportunities in the gaming industry; 3D printing workshop at Cabrillo National Monument; candle making; event with Daybreak Seaweed where girls will learn about the science behind seaweed farming. Current demographics are: 20% Black, 63% Hispanic, 7% White, 10% Bi-racial with 32 mentees and 32 mentors. Based on past metrics, the majority of the girls will not go on to attend college, however, there are vast opportunities available to them, and efforts to introduce them to STEM support the need for more women in STEM, particularly women from historically underserved communities, such as these girls. These girls are referred from many sources including Rady Children's Hospital, foster care, incarcerated parents' services, social workers, school counselors, and more.

3. \$5,000 to San Diego Natural History Museum for their Education programs

The grant will support environmental science education outreach at the San Diego Natural History Museum (TheNat) to be expended within one calendar year. Funding will support expenses for student field trips to the museum, access to virtual programs, Nature to You resources, and outdoor engagement for students that attend Title I schools. Live virtual programs continue their popularity among schools interested in adding a variety of outreach to their daily instruction—reaching over 110 Title I schools county-wide. The goal is to ensure access to their comprehensive learning experience is available to all students in the region. The Museum continues to collaborate with the San Diego County Office of Education, various schools, youth groups, and Title I schools across the County. They also work closely with the largest school district in our region, the San Diego Unified School District (SDUSD). SDUSD has an extremely diverse student population, representing more than 15 ethnic groups.

4. \$15,000 to Boys & Girls Clubs of Greater San Diego for STEM programs

Funding will support STEM curriculum modules such as Engineering, Chemistry, Solar Systems, and other focused STEM topics. In addition, the funding will support STEM Summer Camps. They anticipate impacting the lives of over 8,000 children across the region. The overall goal is to provide the community a sense of safety and opportunities to disadvantaged youth – one that deals with food insecurity, housing insecurity, lack of access to healthcare and academically struggling schools/school districts. Funding will support the greater San Diego community, in particular disadvantaged kids. It will ensure access to the tools and supplies they need to prepare for the future. The purpose of the funding request is also to continue our support to get kids involved and interested in the science field at an early age.

5. \$5,000 to A Step Beyond for their World of Work program

Funds from GASEF will support ASB's World of Work (WoW) program for very low-income youth in North Inland San Diego County (Escondido and San Marcos) with emphasis on its Career Simulation

component. Students explore and simulate 36 different careers at ASB from 3rd – 8th grade. Younger students role-play a “day in the life” of a worker through two-day lessons while older students engage in more rigorous project-based learning anchored in a specific career. Middle and high school students participate in innovative 8-week career lab modules in their MakerSpace to increase their understanding of biomedical engineering, criminalistics, flight and drone technology, child development, and veterinary medicine. Two new engineering career modules will be added this summer. Funds from GASEF will support the facilitation of these career simulations for middle and high school participants, as well as underwrite a portion of career lab supplies and the implementation of the new engineering modules. ASB expects to serve 300 students with WoW, who are predominately Latinx, and a minimum of 100 middle and high school participants through its career simulations.

6. \$1,700 to All Girls STEM Society for their STEM programs

The All Girls STEM Society (AGSS) is a 501(c)(3) non-profit organization in San Diego run entirely by high school students, with guidance from an advisory board composed of STEM educators and entrepreneurs. Their mission is to challenge the underrepresentation of women in STEM fields by inspiring young girls from grades 3-8 to pursue their interests in STEM fields through free monthly workshops and events at local libraries. Over 9 years, the organization has had over 9000 participants from more than 250 schools and is still growing! In their workshops, they teach topics from chemistry to rocketry to programming to data science. Their workshops combine lectures and hands-on activities; they partner with local elementaries and libraries to provide volunteers for otherwise understaffed STEM events; and AGSS produces a podcast which hosts monthly conversations with inspirational women in STEM. At AGSS, they host their workshops in low-income communities. Girls begin losing interest and confidence in STEM as early as second grade: their program beginning in third grade, earlier than any other organization, is essential to remedy those feelings before they become a permanent deterrent.

7. \$10,000 to Air & Space Forces Association CyberPatriot and StellarXplorers programs

The funding will sponsor 2 AFA national programs: CyberPatriot, a cyber security program, consisting of camps and competition, and StellarXplorers, a space design program consisting of camps and competition. In 2022-23, 101 of 5,266 CyberPatriot and 6 of 354 StellarXplorers teams were from San Diego County. The top Open Division high school, Air Force JROTC, and middle school teams for the past two years were from Del Norte High School, Scripps Ranch High School, and from the Poway Design 39 campus. 4 of 6 2023 CyberPatriot All-Americans were from San Diego. Registration fees are waived for teams from Title 1 schools and all-female teams. All teams that make the national finals attend at no cost. As a result, corporate partners are critical. The goal is to expand both teams and camps for both programs in the Greater San Diego area, utilizing the San Diego AFA Chapter.

8. \$5,000 to UCSD Birch Aquarium for K-12 education programs

Birch Aquarium's education programming is designed for K-12 students with special emphasis on youth in communities who would not traditionally be exposed to immersive environmental experiences, particularly Title I schools and students that benefit from free or reduced lunch. Support from the GA Sciences Education Foundation will help ensure its educational programs remain affordable and accessible for all students with a special emphasis on those with greatest need for high-quality science education programming. The aquarium disseminates these programs locally and throughout the nation through publications, curricula, multimedia presentations, traveling exhibits, educational initiatives, outreach programs, summer camps and teacher training designed to stimulate curiosity and critical thinking about the natural world. Programs include Discovery Labs, Self-Guided Visits and Teacher Resources, and outreach programs via a van for schools that receive financial aid. After School programs for K-8 students from San Diego Unified include Beach Science for 6th grade students from underserved communities serving 13 schools. They serve 44,000 students every year, 44% of whom are low-income.

9. \$5,000 to Greater Than Tech for their Community Robotics and Entrepreneurship programs

Greater Than Tech (GTT) will use the funds to purchase robotics kits and tools for their Community Robotics Program, a novel program that provides 60 middle and high school girls and boys with hands-on technology and entrepreneurship experience and uses STEM to solve social impact problems. Modeled after similar youth robotics programs, GTT's program is unique in that it was designed specifically for the

underserved students from disadvantaged neighborhoods who (1) do not have hands-on technology experience, (2) do not have parents or role models in their networks who are STEM professionals, (3) are unaware of the benefits of early exposure to STEM concepts, (4) do not have access to large amounts of capital required to support a sophisticated robotics team, (5) and are looking for instructors and STEM experts who come from ethnicities and backgrounds similar to themselves. This Program culminates in Demo Day, where students can showcase and demo their robot and pitch to judges who are actual tech entrepreneurs and community leaders with the opportunity to win scholarships and prizes for their hard work. In 2022, they served 200 girls and underserved students of color between the ages of 11 and 18 in San Diego County.