

“4 Schools Running 4 Life”

Desert Sands Teachers Assn. \$19,977.00 | Bethany Marinez

The goal of this proposal is to strengthen the Dr. Carreon Academy and Van Buren Elementary School communities by continuing to promote physical fitness and academic scholars. The second goal is to partner with two additional schools, Roosevelt Elementary and Kennedy Elementary - both in Indio. A few years ago, Hoover Elementary included Dr. Carreon Academy and Van Buren Elementary in their proposed grant, allowing our schools the opportunity to create and fortify a school culture of health and wellness. It is our intention to continue strengthening our own programs as we branch out to other schools in our community. One mile, one student, four schools at a time!

A Greener Future

Chula Vista Educators \$10,922.00 | Amy Fallon

Children have become the focus on being the “solutionaries” for environmental change. As solutionaries, children can create the wave of change through environmental education and sustainable practices. Starting from when the children are young, families and teachers can help create these positive sustainable practices. At Salt Creek Elementary all classrooms would incorporate inquiry-based lessons to encourage students to become global stewards through personal lifestyle changes to positively impact the environment. With our throwaway lifestyles, we need to change the daily mindset. Students will work cooperatively to create a variety of solutions to reduce waste at our school. With the water bottle refill station purchase we will make the necessary steps to reduce our plastic waste. In addition, this grant will provide recycle and compost bins, gardening tools, environmental education curriculum, and equipment to support inquiry-based lessons. As a result, the school will create a meaningful, sustainable program.

A New Way to Grow Food

Anaheim Secondary Teachers Assn. \$20,000.00 | Samuel Jaramillo

The project is designed to support student teams in creating a greenhouse-aquaponics space at Western High School. With the grant, students will collaborate in teams led by their own peers to design, construct, and oversee the growth of the greenhouse into a common space for hands-

on, project-based learning. Students will gain valuable skills in leadership and communication, while developing a growth mindset by engaging with their peers in the iterative design process. As a school, we are eager to utilize this space to give back to the community through food banks and collaboration with local middle and elementary schools.

Books for Students - Selected by Students

Maxwell Teachers Assn. \$5,000.00 | John Patterson

In 2017, our school flooded. Our junior high students lost almost \$2,000 worth of books that had recently been purchased using proceeds from our Scholastic book fair. The books had been cataloged and were sitting on the floor ready to be put on shelves. The library was already terribly understocked. The students were devastated. We simply needed more books, and nothing is better than a student recommending a book to a peer. My proposal is for students to create grade level teams to research, select, physically go get, and then bring back, books for their peers.

Coding and Robotics

Santa Monica-Malibu Classroom Teachers Assn. \$4,936.77 | Sheri Hynding

Coding and Robotics are areas of computer science that students should be exposed to. Coding can be tied to other content areas and are aligned with NGSS as there is a strong connection to engineering and design. Students will begin with a deepened understanding of coding, programming, and continue with the connection to robotics and future careers. Various tools which support both digital and hands-on blended learning will focus on constructing viable codes to program robots in order to perform tasks.

Coding Using Robotics

Rohnert Park-Cotati Educators Assn. \$11,230.00 | Suzette Williams

This grant would supply materials to allow an innovative middle school to build a comprehensive enrichment program which would allow students to explore science and technology in a hands-on fashion. A robotics/coding program would benefit students by exposing them to situations that require the use of creativity, thinking skills, and the ability to persevere through tough situations. The middle school team has begun to teach students the process of coding using online sites to engage the students. Lego Mindstorms Education kits would allow us to foster critical thinking skills that are expected by business leaders today.

Collaborative and Innovative Learning Environments

Irvine Teacher Assn.

\$20,000.00 | Grace Kim

Brywood Elementary School is uniquely positioned to be the ideal recipient for this grant. Despite being one of the lowest funded school districts in California, we are one of the highest performing school districts. Our brand-new Innovation Lab is a designated space for student collaboration and innovation. Our goal is to support real world learning and 21st century workplace skills by providing our students with flexible furniture for small group collaboration and purposeful equipment that spark curiosity, collaboration, and serves as a catalyst to the design process.

COMMUNITIES UNITED THROUGH

BILINGUALISM (COMUNIDADES UNIDAS A TRAVES DEL BILINGUISMO)

Anaheim Secondary TA

\$20,000.00 | Ryan Ruelas

“Comunidades Unidas a Traves del Bilinguismo” is a project that empowers high school students in Anaheim High School’s DLI program. These bilingual ambassadors will create activities that focus on the cultural aspects of Spanish speaking countries for elementary students in AESD. Using their Spanish language ability, students will capitalize on this positive trait and make the DLI program more inclusive through the activities they sponsor throughout the year. The positive attributes of DLI will be illustrated, more stakeholders will have a better understanding of DLI, and membership to this program will increase as students from AESD are exposed to the many benefits of being bilingual and biliterate.

Cool Cat Community Space

Los Gatos Elementary Teachers Assn.

\$12,300.00 | Megan Mahoney

The mission of the Cool Cat Community Space is to repurpose an underutilized outdoor campus space to provide students with a place for doing, being, learning and experiencing. This multi-functional space will create community building opportunities for the school while reinforcing positive strength-based character traits and ecological awareness, which reinforces the school theme of being Peaceful, Aware, Wise, and Safe (PAWS). Students will use the community space in a variety of ways including creating interactive sculptures and a mindful path, which will build sensory awareness as well as academic, personal and life skills.

Coral reef

Oroville Elementary Teachers Assn.

\$8,363.70 | Kathi McCarthy

This project provides students with the skill to understand how biology, chemistry, and physics combine to create a healthy ecosystem. Students will gain hands-on experience by sustaining a soft coral reef environment inside a saltwater tank, they will be responsible for maintaining the correct conditions for the organisms within the tank community to grow and thrive. Students will have opportunities to become involved with school activities, learn valuable lessons about how they are part of holistic community, and develop skills that will aid them in future community service projects, classroom experiences, and potential career pathways. My goal is to implement a leadership program that instructs students on application and interview processes, along with resume writing, and letter of recommendation seeking and implementation.

ED Talks

Anaheim Secondary Teachers Assn.

\$4,975.14 | Nicole Montoy

The ED Talks project showcases students presenting on a problem they would like to solve within their community, major, or career interest. These talks are student-driven, student-led, and student-produced using the project-based learning model as a foundation. Students choose topics that are personal, and they are passionate about, they choose which student presentations should be showcased, and shoot and edit each presentation in a TED Talk format. These talks lead to exciting civic engagement, conversation, curiosity, skepticism, openness, critical thinking, and action.

Empowerment Through Political Literacy

Sweetwater Education Assn.

\$2,800.00 | Erica Dibello-Hitta

The Empowerment Through Political Literacy project prepares adult education students in High School Equivalency and Citizenship classes to influence policy at the local level. Through visits to City Council meetings as well as with their local representatives, students will experience how government works firsthand. These students will use the information learned in the classroom as a springboard to effectively advocate for themselves and their community. This student-centered project is future oriented and, most importantly, it is results oriented.

**Growing our Heart -Through the Use of Art
Salida Teachers Assn.
\$14,300.00 | Lenora Gerber**

Through the use of writing and art, this grant would provide opportunities for the third-grade students to learn about the past through communication with the senior citizens in our community. The classes would relate to a member of Hospitality House or other senior care center and begin writing letters back and forth to one another. Students would learn how to read in cursive, write in cursive, and make connections to others. In return, the seniors feel connected to the youth as well as share their past experiences with the third graders.

Art is part of the grant as well. Through the use of art and a guest artist, the students not only learn about famous artists, but also learn to share and give. The students will create art projects throughout the year and give them as gifts to the senior citizens. We will begin the year by designing a rock and donating it to the senior care facility to brighten their yard and outdoor seating area with a heart art rock garden. Students will each create a holiday project to present to the center as well. Since we have three classes, a class will do a Christmas project, another a spring project, and the last class will donate a Thanksgiving project.

While we study art, the letter writing between the seniors and students continues. The grant would help pay for stationary, cards, stamps, and the needed materials, so we focus on writing and interpersonal relationships with others. The cost of art supplies would be covered by the grant so that the students become exposed to famous artists, create famous artist inspired masterpieces, as well as learn to give to others by providing artwork to the seniors in our community.

The year will end with an art project designed with the assistance of our guest artist. We will travel to the center to deliver our end of the year gifts. Other trips to the center will take place throughout the year as well.

**Harvest Helpers of Fremont
Fremont Unified District Teachers Assn.
\$20,000.00 | Stephanie Atwell**

Harvest Helpers plans to expand its fruit-gleaning operation beyond its current high school home to include all Fremont Unified students and staff, K-12. Each month, two classrooms will harvest fruit from residential trees, then donate it to the community's most needy. Students will become more deeply involved with the details of the now-functioning Project by developing an organizational system to connect with additional donors, find additional organizations eager to accept the bounty, hone the fruit-

gleaning logistics, and record harvests in pounds, while learning about nutrition, teamwork, business sense, and enjoying some fresh squeezed juice.

**Katella Film Academy
Anaheim Secondary Teachers Assn.
\$19,998.87 | John Bautista**

The Katella Film Academy provides students the opportunity to develop filmmaking skills and create short documentaries focusing on bringing awareness to issues in their communities and creating change. Students will storyboard, prep, film, edit, and archive real-world documentary projects of their choice focusing on his/her community and showcase these projects to an authentic audience.

**Little Bits Coding
Solana Beach Teachers Assn.
\$3,044.50 | Nicole Maxwell**

First graders are passionate about coding. They love to program using apps on their iPad and create new animations and games while moving characters from one place to another. I would like to take coding to a higher level and give my students the opportunity to link coding with the engineering design process through the "Little Bits" coding kits. These kits allow students to engineer using physical, electronic building blocks and code their invention with digital block coding. Students will be able to physically invent something and bring it to life through coding. Not only would this be fun, engaging and collaborative, it will empower children because they will get to build something electronic and then watch it come to life. Collaboration, critical thinking and problem solving are all 21st century learning skills that every student will engage in through these coding projects. Not only does engineering and coding offer the opportunity for children to engage in critical thinking and problem solving, they also engage in creativity, math, logic, processing and more. Coding is a powerful skill that has much potential to lead to new learning and future success.

**Look Out Kindergarten! Here I Come!
Capistrano Unified Education Assn.
\$5,000.00 | Manisha Kulkarni-Fish**

Developing a love for learning in each and every student starts with the very first day of Kindergarten! This project will help ensure that every kindergartener at Esencia K-8 is provided the support and opportunity to learn as our new school expands to full-day kindergarten. Students will build relationships with their peers, school, and community by providing hands-on centers both inside and outside the classroom to get them off to a great start and ongoing success. The activities will be integrated into our ongoing

efforts to develop confident, eager learners throughout their educational careers and life.

Marsh Inventor's Makerspace
Chico Unified Teachers Assn.
\$4,998.00 | Jaime Obrien

My goal for this project is to build upon an existing Makerspace elective course, in which students imagine, engineer, innovate, tinker, and build solutions to a wide range of problems, both assigned and from their own lives. Students experiment with the principles of design thinking while completing various engineering challenges that require them to plan, model, and create tangible objects from their own imaginations. The class is intended to foster a growth mindset in generations of students and inspire children to pursue careers in engineering, design, and related fields in which they tackle the pertinent issues facing our world.

Music Mentors Recording Program
Chula Vista Educators
\$19,700.00 | Brad Collins

This program will provide students with instrumental music instruction after school from a supervising teacher and high school student mentors. High school musicians will fulfill their community volunteer service hours by guiding elementary musicians for a mentor/mentee relationship of students helping students. These partnerships will include acoustical recording of practice sessions, to offer student-produced audio tracks to our GANF award winning music tech classes. With their experience using Soundtrap, Flat.io, and HookTheory, these tracks can be incorporated into digital music projects to share both music programs' work in areas like student news reports, podcasts, blogs, and videos. This program will serve students of Hedenkamp and Camarena schools, two of the largest schools in the largest elementary school district in California, and students of Sweetwater Union High School District. Students will know they are contributing to an already groundbreaking music program by developing lifelong instrumental skills, and experience in recording technology.

Nature is FULL of Drama!
United Educators of San Francisco
\$20,000.00 | Kay Hones

Students take "life skills" classes each week learning gardening, cooking, budgeting, carpentry, art, music & other projects. The garden has student volunteers working before & after school. Some students also help during vacation time. Students grow food plants, build bird houses & safe bee habitats. Last year students began cooking healthy breakfasts & our science teacher brought eggs from

his hens. Everyday there would be a line out the door for egg sandwiches!! Garden is a great favorite with students who range from grade 7-12. Most students have been in juvenile facilities and have little or no experience with gardening.

NCLUSD Musical Theatre
Newman Crows Landing Teacher's Assn.
\$18,000.00 | Hardy Reeves

The Newman Crows Landing Unified School District Musical Theatre Department is an afterschool program that involves students from fourth grade to seniors. Students will have an opportunity to be on-stage, backstage, and running lights and sound to produce a performance of a two-act Broadway musical theatre show, tentatively scheduled to be, "The Wedding Singer". The program will bring students from multiple grade levels and experiences together to perform at a local theatre in front of community members, parents, and guest artists.

Next Gen Visionary Inventors
Associated Pomona Teachers
\$20,000.00 | Alexander Ruper

Our goal is to institute the Next Gen Visionary Inventors Program in Pomona CA. A workspace for children to collaborate and design high end technology projects, engineering inventions, and discover new applications through high-end science fair projects. Through the use of robotics and advanced software programming we want to create a unique environment for those students to see their ideas come to life. We are a team of experienced STEM teachers who know firsthand that exposure to this type of technology and self-guided learning drives student interest and curiosity that in turn promotes their personal drive to learn. We have eager inventors and future engineers within our student population. The grant will support a strong STEM program to educate the Next Generation inventors (NGVI). The funds will be used to generate inventions, cutting edge Science Fair projects, and Vex Robotics competitors whose successes that will be shared, presented, and further promoted as proud STEM products build by our own Pomona students.

OUTDOOR SENSORY GARDEN AND STEAM LAB
Garden Grove Education Assn.
\$20,000.00 | Wilhelmina Burghard

Our campus is located in an urban area where the children have little opportunity to explore nature and outdoor sensory stimulation. In the Outdoor STEAM Classroom children and adults will work with dirt, plants, and grow a garden in a natural setting. We propose to have classroom gardens for flowering plants and for growing fruits and/or

vegetables. Each classroom will plan and maintain a small garden as well as a larger school community garden area. The gardens will be child-centered and maintained. This school garden will be used as a tool for social/emotional development with the children and our families in our community. This outdoor classroom will also be equipped with a sensory area that has a magnetic wall, art easels and outdoor ramps which will be used for hands on STEAM activities and scientific observations. Our goal is to make the outdoor STEAM area an extension to our indoor STEAM LAB!

Paintings for Positivity
Escondido Elementary Education Assn.
\$4,999.46 | Kirsten Josephson

“Paintings for Positivity” is a grant intended to help build a positive school culture through art. Students in grades 6-8 from Exploratory and Advanced Art, and the Graphic Design Club, in collaboration with staff and parents/guardians, will create positive and motivational paintings of all sizes for the school walls and for special events. Students will be asked to have a growth mindset and not be afraid to take artistic risks. Students will gain experience working with “customers” (school staff from various content areas), asking for guidance and feedback. The goal is for the grant to continue in subsequent years.

Peer Mentoring Co-Op: Every Lancer Every Day, Next Steps In Student Support Unified Assn. of Conejo Teachers
\$20,000.00 | Ashley Cooper

Peer Mentoring Co-Op connects socially at-risk students and trained student-leaders through daily activities to build communication skills, develop self-confidence, and strategies for maximizing connections on campus. The opportunity to develop social skills and confidence in students has the potential to revolutionize their personal experience, while transforming the culture on campus. Students will form committees and develop student-centered programs to support social-emotional wellness for the campus and community. The power of students helping students is exponentially impactful and necessary to demonstrate that each student on campus is important. The Peer Mentoring Class will implement cutting-edge student-centered programs: “Every Lancer, Every Day”.

Pio Partners Mentor Outreach
Anaheim Secondary Teachers Assn.
\$20,000.00 | Monique Flores

Pio Partners Mentor Outreach has three main goals. 1--reach out to eighth and ninth grade students and parents to support the transition into high school, 2--create an inclusive environment with special education students, 3--

provide safe locations on campus for students to feel welcomed and supported at lunch. Teachers train students to lead and mentor the three target groups. Mentors conduct weekly visits to frontload vital information and skills needed to make good decisions and begin high school with a strong foundation. Through quarterly summits, the program will also inform, involve, and empower families.

Podcastic
Pittsburg Education Assn.
\$5,000.00 | Tamara Carr

Third grade students will have the opportunity to record podcasts of book reviews, storytelling, student written essays, and student chosen topics. The project will allow students to demonstrate their creativity and produce a podcast to share with fellow students of the school as well as the public. TED Talks are a concept that could in many ways mirror the podcast for this project. Project Podcastic allows for thoughtful, reflective, and engaging learning.

Raider Reporters Live Streaming
West Sacramento Teachers Assn.
\$8,443.47 | Aland Hoermann

This project will give students the opportunity to live stream broadcast school events to an online site. This multidimensional enterprise entails many different aspects from pre-production work, broadcast journalism and interviewing skills, working with multiple camera feeds, streaming and on-screen graphics technology and post-production work; all while meeting deadlines and creating a product at a professional level. This project will help achieve our school-wide goal of giving students a hands-on opportunity to become college and career ready while simultaneously building school culture by giving the broader community a chance to be a part of some of our most popular school events.

Reaching Beyond the Notes
Association of Linden Educators
\$20,000.00 | Heather Small

“Reaching Beyond the Notes” is a big picture, multi-year project that encompasses multiple forms of support. We combine the passion of two performing arts teachers from Linden High School to provide opportunities for our students that will guide and mentor them along their educational path as they prepare for life. This project allows us to open up the bigger world around them as they become active participants through the multiple avenues of the arts that will enable our students to be self-confident, goal-directed, and to possess a stronger sense of self-efficacy, self-control, and academic achievement. We are seeking a continuation of the grant from the 2018-2019 school year due to its great success and high personal impact that was had by our students. When our program

was visited, our students actively engaged with the IFT overseer and board member. Students shared the personal impacts that the grant and their teachers/directors were able to affect. As teachers/directors, we seek to continue building and increasing our foundation on which the students can continue to learn, experience, and grow.

Researching (With) Our Communities through Oral Histories

Riverside CC District Faculty Assn.

\$18,480.00 | Jennifer Escobar

Researching (With) Our Communities through Oral Histories will support ongoing and new collaborative oral history projects for up to thirty secondary and postsecondary educators who work in Val Verde Unified School District (VVUSD) and Moreno Valley Unified School District (MVUSD) and at Moreno Valley College (MVC); VVUSD, MVUSD, and MVC students will conduct oral history projects with Inland Empire residents, and students will have the opportunity to share their projects at two community events in Spring 2020. Classroom educators will participate in a year-long community of practice centered on the topics of oral history and meaningful classroom conversations and will share what they have learned with their colleagues.

Robotics Rocks!

Covina Unified Education Assn.

\$20,000.00 | Andrew Frogue

The Robotics Rocks grant would support an extremely wide range of students from middle school thru high school across a total of SIX different schools. Few schools have the budget to start, much less maintain, a robotics program across the nation. This grant would ensure that robotics programs would be firmly established across our entire school district. Currently, one high school and middle school maintain active robotics programs. This grant, in addition to supporting the existing two, would also establish four additional robotics programs on the remaining middle and high school campuses. The two existing programs would serve as "training hubs" for the other four schools. Students at the training hubs will function as teaching assistants in training students from the other schools in how to build and code the robots and get them ready for competitions.

Room to Write

Beaumont Teachers Assn.

\$20,000.00 | Elizabeth Newmeyer

Three Rings Ranch Elementary School is ready to re-envision and transform how we teach writing by combining

a makerspace mentality to create, collaborate, and innovate, with teacher-tested, kid-approved best practices in writing instruction. The Room to Write project will create a makerspace-style Writer's Lab, a yearlong partnership with the Inland Area Writers Project, author visits, and writing fieldtrips and assemblies. In this school-wide writing makeover, writing will be the unifying thread that ties together our AVID, PBIS, Equity, NGSS, and VAPA initiatives, honoring and celebrating the voice and passion for all students and teachers.

SEEDS TO SUCCESS

Chico Unified Teachers Assn.

\$20,000.00 | Jon Nickerson

"Seeds To Success", a high school ASB club, will educate student club members on how to turn their phase 1 project; construction of a commercial nursery and growing grounds into Phase 2; a retail area with additional community sale sights. Participants will learn the retail side of growing annuals, perennials and succulents, along with seasonal vegetables and herbs and decorative trees such as Japanese Maples. In addition, students will work with a locally well-established florist shop specializing in cut flowers while learning their business operations at their Corporate Farm. Teaming with them, our club will grow a commercial pumpkin patch and operate a seasonal cut flower cart. Locally, we will work with prior established businesses to sale our product from our "Seeds To Success Retail Garden Center" at their business locations.

STEM for All

Fontana Teachers Assn.

\$18,258.00 | Veronica Gutierrez

This project seeks to expand our STEM program to all grade levels (STEM for All). We currently offer Coding/Robotics and STEM classes, but we are limited to one class using our Lego Mindstorms robotics kits due to the number of sets we have (15). Our other classes use robots compatible with only one program that is installed on a limited number of student laptops. We plan on purchasing more Lego Mindstorms robotics kits, Sphero SPRK+ robots, and 3-D printers. Our current robotics elective class where we use the Lego Mindstorms includes mixed grade levels. We would like to add more robotics course sections for more students to experience robotics and STEM as an elective class. Through integrated STEM activities and projects, students will learn across subjects and gain insight on the interdependence of the core subjects. Students will experience actively solving real-world problems, with an emphasis on solving student-determined problems in our school and community. Students will develop leadership skills and sharpen their personal strengths to contribute towards group projects and challenges. Students will learn to become self-reliant and responsible while becoming 21st century thinkers who impact the community in positive

ways. Overall, we want students to feel a change in the culture at our school by harvesting their strengths through their interest in robotics that lead them through STEM education to become experienced critical thinkers and persistent problem-solvers.

SYMS SeaPerch

San Ysidro Education Assn.

\$2,750.00 | Michelle Patterson

I would like to bring STEM to students through building remote controlled submersibles through the Seaperch program. All students regardless of ability and diversity can and will build a submersible and remote-control device from individual parts. They will use tools that will give them future real-life experience in ship building, submarine building, math, science, robotics, blueprint reading and designing. Hopefully, they will compete in a Seaperch competition in which they will use their built remotely operated vehicle (ROV). Students need hands on experience in STEM and building this device gives all students this opportunity.

The Diggers & Diners Club

West Sacramento Teachers Assn.

\$19,097.00 | Andrew Tait

The Diggers & Diners Club is currently in its 3rd year of existence. The student-centered club is at the epicenter of the locally grown food movement. Essentially, students grow fruits and vegetables on a small parcel on campus, sell the produce to the faculty and community members and use the proceeds to dine at area restaurants that embrace the farm-to-fork philosophy. (The importance of this program cannot be overemphasized as parts of West Sacramento are food deserts, areas void of healthy food choices, which forces students into unhealthy dietary decisions.) The grant would replace and update garden infrastructure, help foster and promote the club's mission in the school and community, fund field trips and educational opportunities, and provide valuable learning resources.

The Gateway Program

Los Banos Teachers Assn.

\$20,000.00 | Sergio de Alba

The Gateway Program has transformed the way our students and community see our school. Our goal is to positively change the perception of the role of education in our community by empowering students, parents and teachers in creating engaging and life changing experiences. Our award-winning garden program has achieved remarkable results. Our thirteen gardens not only increase engagement levels of students, but also beautify our campus and allow parents an avenue to volunteer and

become active members of our learning community. Our grant proposal will continue to facilitate our progress. We will carry-on this student-centered program for years to come.

The Successful Child: A Sensory-integrated Approach

Garden Grove Education Assn.

\$20,000.00 | Jane Chan

Currently, Carver has over 200 students with special needs. Many students require some form of sensory stimuli to aide in their ability to access the curriculum. Often, teachers spend their own money to buy resources they feel are going to benefit the students. Although we have occupational therapist who visits our campus, it is not enough if we are not given resources to test and implement within the classroom. Therefore, our proposal consists of three main components: flexible seating and sensory toys within the classroom, "calming" activities for a Sensory Room, and additional equipment and toys in a Check-out Room.

Turtle Bay School Vertical Garden Project

Redding Teachers Assn.

\$10,129.26 | Jennifer Mogen

Kindergarten is a time for learning many exciting and potentially life-inspiring things. Perhaps the most meaningful topic for any kindergartener is "how things grow." This project will provide opportunities for students to "create life" through gardening in a hands on way, while providing science experiences that inspire experimentation and discussions about; how plants and animals differ, the interdependence of humans and plants, where our food comes from, stewardship of other living things, and community responsibility. In addition to addressing many NGSS's, this project will inspire future scientists, bioengineers, gardeners, nurturers, and environmentalists.

TVHS Biosustainability Solar Project

Temecula Valley Educators Assn.

\$20,000.00 | Tobin Brannon

The goal of this IFT Impact grant application is to fund a student designed, built and maintained off-the-grid solar array at Temecula Valley High School. This solar array will meet all of the energy requirements of our student designed, built and maintained aquaponics greenhouse (completed in 2018).

The grant application that follows was written by the thirty-two students currently enrolled in Biosustainability, an elective science class at Temecula Valley High School. Over the course of the 2018/2019 school year, these students have researched solar energy production, with an emphasis on off-the-grid solar. Students reached out to local solar

energy experts for advice, determined the current needs of our greenhouse, while also planning for future greenhouse expansion/growth. Using computer modeling, students designed a solar array that will meet the current energy needs of our greenhouse with room for future expansion.

The students self-selected areas of interest in the solar field and then subdivided into 7 groups. Each group then collaboratively wrote one of the 7 Matrix Factor components found in the following grant application. Each group then peer-edited each of the other Matrix Factor sections. The grant application that follows is entirely student produced. Grant funding will provide Biosustainability students the opportunity to install the solar array in a collaborative effort with students from Rancho Vista High School. Rancho Vista High School is the continuation High School for TVUSD and has a Solar Installation program that was started with seed funds from an IFT grant awarded in 2012.

Wholesome Food and Hispanic Culture- Extended

Butte County Teachers Assn.

\$5,000.00 | Christine Holzhauer

Beyond the 2018-2019 grant, additional activities will engage learners in wholesome foods and Hispanic culture: garden plantings, strategies of Spanish language learning, inclusion of additional learners due to increased pen pal student numbers, and an increased cultural enrichment program of music, dance and travel (a virtual field trip of a Mission) with emphasis on Hispanic culture. High school students will not only continue to do Hispanic ceramic production, but will make two-dimensional visual arts, tortillas, salsa and pozole using fresh garden vegetables, friendship quilts for student pen pals, bilingual songs and Hispanic dance moves.

Wolf Pack Farm to Fork Garden Grant

Shasta Secondary Education Assn.

\$20,000.00 | Monique Pruitt

This grant would use existing and new infrastructure to create a garden site, which will include a composting site, and fresh vegetables, fruit and herbs. This project will include the science department, cad/engineering, special education and culinary. Our goal is to bring sustainability, enviro-science and the farm to fork movement to life on our campus. Together, our four departments will be researching, designing, building, planting, maintaining, and harvesting food from our school garden.