Program-Title	The Great Moonbuggy Race		STEM Inventory	Entry#	5
Org-Type	Government-based				
Lead	NASA	PoC	Durlean Bradford		
PoC-Phone	n/a	PoC-Email	Durlean.Bradford@msfc.nasa.gov		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Engineering|Robotics				
Level	High School (9-12th grade)|Undergraduate				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Great Moonbuggy Race is an annual competition in which student groups construct moonbuggies under certain guidelines and compete against other groups. The 14th Annual Great Moonbuggy Race (2007) was in Huntsville, Alabama, at the U.S. Space & Rocket Center. Students were required to design a vehicle that addressed a series of engineering problems that were similar to problems face by the original Moonbuggy team.				
Outcomes	The objective of this program is to build interest in space for students deciding on a career path. A lot of learning also transpires when students are designing concepts and doing hands on fabrication. The competition may also benefit the design of future moonbuggies as students may provide some insightful products.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Northrop Grumman Corporation. American Institute of Aeronautics and Astronautics (AIAA) ATK Launch Systems, Inc. CBS affiliate WHNT Channel 19 of Huntsville Jacobs Technology Morgan Research Corp. Science Applications International Corporation (SAIC) Tennessee Valley Chapter of the System Safety Society, Inc. United Space Alliance, LLC.				

Program-Title	Lunar and Planetary Institute		STEM Inventory	Entry#	6
Org-Type	Higher-Education-based				
Lead	Universities Space Research Association	PoC	Katy Buckaloo		
PoC-Phone	281-486-2106	PoC-Email	outreach@lpi.usra.edu		
Address	3600 Bay Area Blvd., Houston, TX,77058				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Space				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Institute is a center for lunar and planetary science, conducting research studies on the formation, evolution, and current state of the Moon, planets, comets, asteroids, planetary satellites, cosmic dust, and our solar system as a whole through analysis of data and samples obtained through NASA's long history of missions and exploration. The Institute also develops education and public outreach programs that engage families, educators and students in space science and enhance the public appreciation of lunar and planetary science. The program engages the community in the exploration of space science and the process of science in an effort to create an educated public and to generate future space science explorers. We aim to develop a diverse portfolio of current, content-rich, high-quality, space science educational programs and resources, organized within compelling space science themes, and presented in a learning environment that meets the needs of the intended audiences.				
Outcomes	We aim to facilitate the sharing of space science knowledge and the process of science among researchers, educators, and the general public in a way that leverages and respects the resources of the Lunar and Planetary Institute, the Universities Space Research Association, NASA, and the space science community. "...America's students must improve their performance in mathematics and science if they are to succeed in today's world and if the United States is to stay competitive in an integrated global economy....the most direct route to improving mathematics and science achievements for all students is better mathematics and science teaching..."				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	NASA				

Program-Title	Early Assessment Project	STEM Inventory	Entry# 7
Org-Type	Higher-Education-based		
Lead	California State University	PoC	Carolina Cardenas Associate Director, Academic Outreach and Early
PoC-Phone	(562) 951-4724	PoC-Email	ccardenas@calstate.edu
Address	401 Golden Shore, Long Beach, CA, 90802		
URL			
Service-Region	All California		
Type	Other		
Subjects	Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	300,000	Demographics	
Content	Curriculum and Instruction Steering Committee of the Statewide County Offices of Education; State Superintendent of Schools (Jack O'Connell); California Department of Education		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Educational Testing Services (ETS)		

Program-Title	Early Assessment Project	STEM Inventory	Entry# 8
Org-Type	Higher-Education-based		
Lead	California State University	PoC	Carolina Cardenas Associate Director, Academic Outreach and Early
PoC-Phone	(562) 951-4724	PoC-Email	ccardenas@calstate.edu
Address	401 Golden Shore, Long Beach, CA, 90802		
URL			
Service-Region	All California		
Type	Other		
Subjects	Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	300,000	Demographics	
Content	11th Grade Assessment of readiness for college level coursework in English and math; alignment of 12th grade English and math instruction with California Content Standards and CSU English and Math proficiency expectations; professional development in English and math instruction		
Outcomes	Reduce need for remediation in math and English among CSU freshmen; align high school standards with college expectations; shorter the length of time to graduation from CSU		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	CalState Teach	STEM Inventory	Entry# 9
Org-Type	Higher-Education-based		
Lead	California State University	PoC	Dr. Helene Mandell, Statewide Director
PoC-Phone	n/a	PoC-Email	hmandell@calstate.edu
Address	401 Golden Shore Long Beach, CA, 90802		
URL			
Service-Region	All California		
Type	Professional Development for Teachers		
Subjects	General Science|Math		
Level	Teacher Certification		
Other-Objectives			
Served-per-Year	500	Demographics	
Content	Preparation and certification of Multiple Subjects Credential teachers Outcomes-Generated: High quality, well-prepared classroom teachers graders K-8 Primary-Focus-Program: Multiple Subjects with concentrations in science/math, reading/language, social sciences/arts Program-Best-Practice: CST is a teacher preparation program that is classroom based from the first day the teacher begins the program. This results in a wealth of teaching experience that allows the teachers authentic instructional experience. The program works because the teachers are in a classroom setting with students. The program provides on-line resources for instruction and support from CSU faculty throughout the state. The program works because the teachers are in a classroom setting with students. The CST program has been shown to be an effective teacher preparation program for multiple subject teachers through the comprehensive implementation of the California Teacher Performance Assessment since Fall 2004. TPA data can be found at: www.ctc.ca.gov/tpa		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice	The College of Education at Cal Poly, SLO is currently developing a single subject intern teacher credentialing program based on the CalState Teach Multiple subject program model. The new intern program will incorporate immediate placement in a classroom setting and CSU faculty support along with access to on-line resources for instruction. The program will be available statewide.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Science and Mathematics Education Center		STEM Inventory	Entry#	10
Org-Type	Higher-Education-based				
Lead	CSU Fresno	PoC			
PoC-Phone		PoC-Email	jaimea@csufresno.edu		
Address	2555 E. San Ramon Mail Stop SB 73 Fresno, CA, 93740				
URL					
Service-Region	All California				
Type	Student Program				
Subjects	General Science|Math				
Level	Undergraduate				
Other-Objectives					
Served-per-Year	200-1500+	Demographics	Economically disadvantaged		
Content	Early Field Programs for undergraduates in science and math; special summer institutes/courses for both preservice and inservice; special programs for middle and high school students in science; funded project assistance and facilitation (i.e. Ca MSP's etc)				
Outcomes	Enhanced preservice program (more students, higher performance, higher retention as science and math teachers); special digital library portal development for Ca Science Teachers, professional development opportunities for math and science teachers				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Fresno City College, Reedley College, West Hills Lemoore, Fresno Unified School District, Tulare City Schools, Tulare Unified School District, Dinuba School District, Clovis Unified School District, Madera Unified School District, Sierra Unified School District, Sanger Unified School District, Central Unified School District, Selma Unified School District, Visalia School District, and others CA Dept of Education, National Science Foundation, NASA, US Dept of Energy, California Post Secondary Ed Commission				

Program-Title	skills USA		STEM Inventory	Entry#	11
Org-Type	Non-Profit-based				
Lead	skills USA	PoC	Courtne Coates, Customer Service Assistant		
PoC-Phone	(703) 777-8810 ext. 617	PoC-Email	temp2@skillsusa.org		
Address	P.O. Box 3000 • Leesburg, Virginia VA, 20177-0300				
URL					
Service-Region	Nationwide				
Type	Professional Development for Teachers|Student Program				
Subjects	General Science|Math				
Level	High School (9-12th grade)|Undergraduate|Teacher Certification|Professional Development				
Other-Objectives	SkillsUSA is a national organization serving teachers and high school and college students who are preparing for careers in technical, skilled and service occupations, including health occupations. SkillsUSA was formerly known as VICA (the Vocational Industrial Clubs of America).				
Served-per-Year	285,000+	Demographics			
Content	SkillsUSA programs include local, state and national competitions in which students demonstrate occupational and leadership skills. At the annual national-level SkillsUSA Championships, over 5,000 students compete in 87 occupational and leadership skill areas. The Professional Development Program (PDP) teaches 84 workplace skill competencies in a series of hands-on self-paced lessons. The Tota Quality Curriculum (TQC) trains students through activity-based instruction in the quality improvement process used by industry. Student2Student Mentoring gives high school students a chance to mentor younger students in the area of career development. The Career Skills Education Program (CSEP) contains 49 online lessons teaching basic employment and life skills to college/postsecondary students. Student2Student Mentoring gives high school students a chance to mentor younger students in the area of career development. CareerSafe is a credentialed 10-hour online training program developed in cooperation with the Occupational Safety an Health Administration (OSHA) to provide students with basic knowledge of safety and a credential desired in the job market. Workplace Readiness Certification demonstrates student attainment of employability skills. It requires successful completion of a written exam prepared with NOCTI (National Occupational Competency Testing Institute) and NASDCTEc, the consortium of state directors of Career and Technical Education.				
Outcomes	SkillsUSA is an applied method of instruction for preparing America's high performance workers in public career and technical programs. It provides quality education experiences for students in leadership, teamwork, citizenship and character development. It builds and reinforces self-confidence, work attitudes and communications skills. It emphasizes total quality at work: high ethical standards, superior work skills, life-long education, and pride in the dignity of work. SkillsUSA also promotes understanding of the free enterprise system and involvement in community service.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	WK Kellogg foundation LOWES BOSCH Kansas City Convention and Visitor Center State Farm Insurance American Welding Society Caterpillar Sharpie Rubbermaid Snap-On Stanley USG Autodesk Autozone Best Buy John Deere ACDelco Air Products and Chemicals Inc American Honda Motor Co. Inc. ArvinMeritor Inc. Associated Builders and Contractors Inc. Automotive Youth Educational Systems (AYES) BlueCross BlueShield of Kansas City Carhartt Inc. Consumer Electronics Association Detroit Diesel Corp. Eaton Corp. FedEx Freight* General Motors Corp. Graphic Arts Education and Research Foundation* intelitek, Inc. International Truck and Engine Corp. John Wiley & Sons Inc.* Kohler Co. Lincoln Electric Co.* Lowell Peters Mack Trucks Inc. Mark One Electric Co. Inc. Miller Electric Mfg. Co. Inc. MSC Industrial Supply Co.* National Association of Parliamentarians National Institute of Occupational Safety and Health Northrup Grumman Ship Systems Ratner Companies Robert L. Flint Ryder System Inc. SPEC MIX Inc. Timberland PRO United Parcel Service				

Program-Title	The Motivating Undergraduates in Science and	STEM Inventory	Entry# 12
Org-Type	Government-based		
Lead	NASA	PoC	NASA Glenn Research Center Education Programs Office
PoC-Phone	(216) 433-6656	PoC-Email	intern@grc.nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Math|Space|Engineering		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged
Content	Each year, the MUST Project will support approximately 100 undergraduate students with a one-year competitive scholarship of up to one-half of tuition, not to exceed $10,000. Students who maintain the required minimum grade point average will be eligible for a paic internship at a NASA center or other research facility. Additionally, students will benefit year-round from tutoring, lecture series and mentoring from STEM faculty and peers. The scholarships and internships will be renewable for up to three years, provided the students continue to meet the academic requirements.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	MUST awards scholarships and internships to undergraduates pursuing degrees in science, technology, engineering and mathematics, more widely know as STEM fields.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Partnerships for America's Youth		STEM Inventory	Entry#	13
Org-Type	Non-Profit-based				
Lead	National Academy Foundation	PoC	Jenny Pethkongkathon		
PoC-Phone	212-635-2400, ext. 254	PoC-Email	jenny@naf.org		
Address	39 Broadway, Suite 1640, NY, 10006				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Other				
Level	Undergraduate				
Other-Objectives					
Served-per-Year	10,000	Demographics			
Content	NAF sustains a nation-wide network of career-themed Academies that are organized as small learning communities. NAF students remain together throughout their high school years with a core group of specially trained teachers. This innovative small learning community or "schools within schools" concept was the vision of NAF's Founder, Sanford I. Weill, the corporate leader and philanthropist. Since its founding other leaders have joined Weill and supported NAF's mission, including Ken Chenault of American Express, Terry McGraw of McGraw Hill and Chuck Prince of Citigroup. NAF's small school vision emphasizes academic excellence while preparing students to pursue professional careers in the corporate sector. This vision has evolved into a premier reform model for public education throughout the country, and has helped inspire the contemporary small school/ small learning community movemen				
Outcomes	The Academy Internship Experience The paid internship is perhaps the most memorable and critical component in the NAF Academy experience for high school students. It is also one of the most rewarding, as it is the opportunity for students to apply, in a real-world setting, what they've learned in their Academy classes in the preceding years. To ensure that the students' paid internship lives up to expectations, all stakeholders must invest an appropriate amount of time and resources. A paid internship is not just a summer job. It i an extension of the Academy classroom instruction and curriculum, further developed and challenged in a business environment, supervised by business leaders in a real-world setting, resulting in a broad, relevant, enriching educational experience for the student. Done correctly, paid internships provide the context in which a student's classroom learning is applied. But the paid internship doesn't stop at just applying classroom skills in a work environment. It also exposes the student to a broad view of work experiences and situations, which could be expected if the student were to pursue a career in that field. And, the student is also exposed to a broad array of soft, workplace skills: critical thinking, teamwork, decorum, ethics, creativity, time management, ingenuity, honesty, problem-solving, comportment, and a solid understanding of the importance of excellent written and oral communications skills. This combination of benefits provides a valuable foundation for any career the student chooses to pursue in the future.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	More than 90% of NAF students graduate from high school - compared to 50% in the urban areas where most NAF Academies are located. 4 out of 5 NAF students go on to post-secondary education. 52% of NAF students complete 4-year college degrees in 4 years - compared with 32% nationally. Of those, more than half are the first in their families to go to college. 90% of students feel that the Academies helped them to develop career plans. 85% of 5- and 10-year alumni are working in a professional field.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	AAA American Hotel & Lodging Association American Institute of CPAs American Society of Travel Agents CalScan - San Francisco, CA Certified Financial Planner Board of Standards Diversity Pipeline National Business Travel Association National Council for Economic Education National Endowment for Financial Education New York State Society of CPAs RITEC				

Program-Title	Traveling Space Museum, Inc.	STEM Inventory	Entry# 14

Org-Type	Non-Profit-based		
Lead	"Space Days"	PoC	Ivor Dawson, President
PoC-Phone	310.279.2624	PoC-Email	ivor@travelingspacemuseum.org
Address	4658 Don Lorenzo Drive Unit D Los Angeles, Ca, 90008		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Space		
Level	Elementary School (K-5th grade)		

Other-Objectives

The primary focus of the program is placed on the use of several full-scale simulators that replicates the actions of rockets, rocket planes, aircraft and space station modules. Simulators also replicates space age sub-systems such as the shuttle space toilet. Program-Best-Practice: The Traveling Space Museum's "best practice" use of simulators was inspired by the US Army's use of simulators during World War II. The Army taught young recruits how to fly airplanes while still on terra firma. Former astronauts Gordon Fullerton and Dr. Leroy Chiao who have 'flown' TSM simulators recognized their effectiveness as teaching tools and the fascination that kids would have for them. LMCO's formal evaluation of an early Space Day reported that 10 of 12 teachers gave the full scale simulator presentations their highest rating: 10 out of 10 and an over all score of 9.7 "in providing educational concepts in an innovative, inspiring and exciting manner to students. 95% of the teachers said that TSM's "Space Day" 'exceeded their expectations.' One teacher notices that a usually energetic student was walking slowly during Space Day. The boy elegently reasoned that he if he walks slowly - the day would last longer! Another teacher was stunnned to receive her first unsolicited book report! The school librarian noticed a ru on space science books days after Space Day. A fourth teacher was surprised when a student who usually has trouble writing a paragraph, has no problem writing about Space Day! This same teacher heard a Special Ed. student say "that with hard work, I can do anything!" Traveling Space Museum won the The National Space Society's "Best Education Program Award" (with the Orange County Space Society)for "Space Day in Compton Ca. 2001." In 2005, TSM Founder Ivor Dawson received the Shuttleworth Leadership Award for inspiring youth. Presenter Mary Shuttleworth, Founder of The Shuttleworth Academy and Mary's Schoolhouse is the aunt of billionaire space tourist Mark Shuttleworth. One day, in a not-too-distant future, every school will have a language lab, a compuer lab and a TSM space lab module for kids to explore.

Served-per-Year	15,000	Demographics	

Content

Simply put, TSM brings the space museum to schools. Specializing in the use of full-scale simulators as teaching tools, TSM's many interactive attractions include the only full-motion flight simulator, space laboratory mockup and jet aircraft to visit schools regularly nationwide. Interactivity is key as students are invited to climb in and operate real and very functional hardware. Inside the simulators the students are completely immersed in the experience. The typical museum will not allow students to touch the exhibits much less climb inside them! Students are introduced to lab top computers, computerized microscopes, heart monitors, glove boxes, CB radios and other equipment. Operating the hardware teaches relevancy and that understanding makes the learning process fun! Students liken Space Day to an outing at a theme park. The lessons learned are memorable enough for students to go home and relate their nev found knowledge of space to parents, friends and siblings. Space Day makes a school to be the coolest place to be! At elementary schools, homeroom teachers are encouraged to stay with their classes as students rotate to each new exhibit on campus every twenty minutes. TSM volunteers, many of whom are female pilots and retired aerospace personnel, demonstrates the exhibits and answer all the questions. Most museum doesn't always have personel to answer questions. With experts on site, teachers can enjoy the Space Day experience along with their students. A master schedule, given to each homeroom teacher, keeps the entire school in rotation and on time. Every teacher knows exactly where their class is supposed to be at any given time on that day, With five to ten minutes to travel to the next attraction, a typical class should see two to three exhibits an hour. Factoring in lunch and exercise breaks, the entire student body should have seen ten or more exhibits in a five to six hour day. Each exhibit is explained in a presentation that lasts abou twenty minutes. Depending on the size of the student population, one, two or even three classes at a time can tour the same exhibit while the entire school is in motion. The uniqueness of the program and anticipation of the day's events provides much of the excitement and the energy. On a typical Space Day, students are busy operating robots, exploring a space laboratory module, putting on space suits or climbing inside the BD-5J -"the world's smallest jet." How astronauts go to the bathroom is instantly demonstrated when students sit on our space shuttle toilet simulation. Space toys, remote control rovers are also favorite exhibits along with the chance to eat space food or handle a meteorite! Space Day stimulates all the senses. Over the course of a school day several hundred students will have toured many more exhibits then what they would have seen at a typical museum. A Space Day is unique as it is likel to be the only shared experience that includes the entire school population! And just how real are TSM simulators? Just ask Gordon Fullerton, Commander of the 3rd Space Shuttle flight. Fullerton had a ball piloting TSM's Orion CRV flight simulator! He was fascinated just looking at it. He had to cram his long legs into the narrow cockpit of the Orion and commented that "NASA never made any cockpi big either!" He quickly mastered the tricky action of the joystick. ISS Commander and Mission Specialist Dr. Leroy Chiao was the secon former astronaut to fight TSM's Orion. He gave the experience "two thumbs up!" TSM also recruits youthful guest speakers to schools who have accomplished amazing feats in science and aviation -often sponsored by TSM. This included Katrina Mumaw, the youngest person to break the sound barrier and Justin Houchin-the youngest to fly a military jet for the National Test Pilot School in Mojave Ca. Kids love to meet amazing kids!

Outcomes

TSM's "Space Day" program stimulates student inquiry in astronomy, rocketry, manned space flight, meteorology, 'space biology' and other aspects of aerospce education. Students are inspired to become astronauts, scientists, engineers and pilots. Several of TSM's teen proteges are currently taking flying lessons and winning science fair awards. TSM's first protege, a 15 year old named Katrina Mumaw recuited in 1998 graduated the Air Force Academy in 2006. TSM also began its "Students Teaching Students" program at a recent Space Day event at Millikan Middle School in Sherman Oaks, Ca. The school's Advance Placement students (those taking college level science courses)became 'inquiry coaches' demonstrating the exhibits to fellow students. The Science Chair and Administrator deemed STS a big success and a good 'ground school' for aspiring teachers!

Started		Funded-Through	
Length		Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			

Program-Title	Traveling Space Museum, Inc.	STEM Inventory	Entry# 14
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Lockheed-Martin Corporation Raytheon's MathMovesU Program, San Fernando Valley 99s, SFV 99s' Aviation Explorers, Long Beach 99s, Experimental Aircraft Association, EAA Young Eagles program, FIRST Robotics, Team 980 ThunderBots Los Aangeles Unified Schoo District, AIAA, World Space Foundation, A-MAN International Science & Discovery Center, El Segundo USD, Riverside USD, Manhattan Beach USD, Science & Technology Education Partnership (STEP)-Riverside, Griffith Observatory (LA Dept. Parks & Rec)X-Prize Foundation		

Program-Title	Han-5 Mathematics		STEM Inventory	Entry#	15

Org-Type	Non-Profit-based		
Lead	Tapp Hancock	PoC	Tapp Hancock
PoC-Phone	661 664-7375	PoC-Email	tapp@han5math.com
Address	8000 Kroll Way, Condo. # 2, CA, 93311		
URL	http://www.han5math.com/index.cfm?fuseaction=page&page_id=44		
Service-Region	Nationwide		
Type	Student Program		
Subjects	Math		
Level	Elementary School (K-5th grade)		
Other-Objectives			
Served-per-Year	800	Demographics	

Content

Han-5 System : A system that teaches nine different hand patterns on one hand to be able to recall any math fact within minutes. Mos math programs teach recall with individual math facts that students need to memorize. Then they can only recall just those facts without conceptual understanding. Han-5 teaches linear patterns to recall any math fact. Then it shows how to solve all kinds of math problems while seeing how math facts are interconnected with functions and operations to understand mathematics as a whole science. I. How does it work? Han-5 System workbooks are systematically set up to teach the visual, kinesthetic, and auditory learner nine different number patterns, on one hand only, to be able to recall and master basic math facts. Workbooks also show how the system relates to a hundred chart, a number line and multiplication/division tables. It also teaches common relationships between multiplication/division math fact families, equivalent fractions and parts to whole. It is a multiple "all-in-one" tool to use in solving math problems, instead of using many seperate tools. II. Objectives: Students will be able to recall and master basic multiplication and division facts with 98% accuracy. To increase understanding of mathematics through number patterns and functions. To give students a feeling of self-confidence and pride while becoming mathematically empowered. To empower students to see patterns in all facets c curriculum and life.. III. Activities When students are taught to read, one teaching strategy is adding initial consonants to word families to create a greater vocabulary. Han-5 system is simply add tens to ones to create multiples. Once again they are learning a pattern, bu instead of using letters they are using numbers to build and extend their knowledge. Then they are able to speak by multiples, which is the first part to understanding multiplication and its relationship to many algorithms. Han-5 workbooks include number puppets, Boogie Boards of hand formations, stories and directions on how to add, multiply, divide, solve equivalent fractions, parts to whole, reduce fractions, etc.. with the Han-5 System. Activities are arranged in a systematic way for the visual, auditory and kinesthetic learne to be successful in learning all math facts. Other activities reinforce the cognitive understanding of how “math fact families” are relate to algebra, multiplication, division, reducing fractions, solving for equivalent fractions plus much more. IV. Benefits of Students Students will understand adding tens to ones to create a number pattern, place value, skip counting by multiples, recall math fact families and analyze how both repeating and growing patterns are generated. Students that couldn’t learn math facts through rote memorization will benefit by being successful within minutes of learning a simple number pattern and then apply it to solve many other kinds of algorithms. V. MATH STANDARDS Some of the Standards the Han-5 workbooks support Numbers and Operations: 1.0 Students understand the relationship between numbers and quantities by seeing different number patterns. Han-5 System teaches students nine different sequential number patterns simply by adding tens to ones using one hand as a visual representation. These numbers added together create multiples for the number they are learning and then they can skip count by that number. By using thei one hand, they can see and understand the conceptual meaning of what multiplication and division is. Then cognitive understanding is easily acquired when solving problems with manipulatives. Note: after practice students drop their hand and can recall the math facts mentally. 2.0 Students perform calculations and solve problems involving addition, multiplication, and division. By learning Han-5, students are empowered to add, multiply, divide, do parts to whole, recall equivalent fractions, recognize commutative and associativ properties of addition and multiplication and create a solid foundation to solve any functional relationship between two quantities. Algebra and Functions: 1.0 Student model and interpret number relationships to create and solve problems. 2.0 Students are empowered to recognize, describe, and extend number problems. Han-5 empowers students to extend and recognize linear patterns by its rule….example: count by 4’s or multiply by 4’s. Statistics and Probability: 2.4 Students organize, represent, & compare data by charts (students use their one hand as a visual chart) Record numerical data in systematic ways, keeping track of what has been counted. Represent and compare data by number patterns. 2.0 Students sort objects, create, and describe patterns by objects and numbers. Describe, extend and explain ways to get the next element in simple repeating patterns with numbers. Students are empowered to do this by learning the Han-5 2.1 Solve problems involving simple number patterns. This is the Han-5 System!

Outcomes

To speak fluently by multiples and knowing their math facts. After learning the Han-5 System of Mathematics,students are empowered to solve any kind of math problem. Primary-Focus-Program: Being able to calculate and solve math problems. Program-Best-Practice: Absolutely. It gives students a second chance to not miss the boat in being able to perform mathematics with self confidence and ease We have a 95% success rate of students increasing proficiency from Far Below and Below levels to Proficient and Advance levels in just one month.

Started		Funded-Through	
Length	One-time	Cost	
Primary-Funding	Other	Primary-$	
Materials			
Other-Funding	Sales of Teacher Licenses, Workbooks, and DVDs.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Kern County Migrant Division V Woodbine Elementary School Arvin School District Delano School District		

Program-Title	Voyages Through Time: An Integrated High	STEM Inventory		Entry#	16
Org-Type	Non-Profit-based				
Lead	SETI	PoC	Pamela Harman, Manager of Education and Outreach		
PoC-Phone	650-961-6633	PoC-Email	pharman@seti.org		
Address	515 N. Whisman Road, Mountain View, CA, 94043				
URL	www.voyagesthroughtime.org				
Service-Region	Nationwide				
Type	Lesson Plan				
Subjects	General Science|Biology|Physics|Space				
Level	High School (9-12th grade)				
Other-Objectives	There are 6 modules in Voyages through Time which comprise approximately 180 days of instructional materials: Cosmic Evolution--astronomy Planetary Evolution--planetary science Origin of Life--biology and microbiology Evolution of Life--biology and evolution of life Hominid Evolution--biology and physical anthropology Evolution of Technology--invention, engineering and evolution of technolog Further information at: www.voyagesthroughtime.org ASSET: This week-long institute for high school science teachers provides content enrichment, inquiry-based learning experiences, planning for professional development, and planning for implementation of astrobiology into high school courses with Voyages Through Time materials and other NASA materials. Program-Best-Practice: Best Practices: Our curriculum design is based upon the National Science Education Standards, and the 5-E's inquiry-based model for classroom science teaching developed by BSCS in Colorado Springs. Our teacher professional development (ASSET) institute also reflects best practices from NSES, and Designing Professional Development for Teachers of Science and Mathematics (Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003). Formative evaluation over 4 years has demonstrated that ASSET is an excellent workshop for high school science teachers. Voyages Through Time has been recognized by: Media and Methods: Portfolio Winner, 2004 Education Software Preview Guide: Notable Software California Learning Resources Network: (CLRN): Ed Tech Funds may be used to purchase th materials. Voyages Through Time is used in more than 400 school nationwide. During development, the materials were extensively tested and evaluated by WestEd, the regional research laboratory for science and mathematics education.				
Served-per-Year	400+ classrooms	Demographics			
Content	Voyages Through Time: A standards-based curriculum for a high school integrated science course centered on the unifying theme of evolution. The curriculum is presented in 6 technology-based modules: Cosmic Evolution, Planetary Evolution, Origin of Life, Evolution of Life, Hominid Evolution, and Evolution of Technology. Together, they comprise a year-long course; individually, the modules can be integrated into discipline based courses such as earth and space science, biology, physics, etc. Each summer, we train 20-25 high schoc teacher-leaders in ASSET: Astrobiology Summer Science Experience for Teachers at San Francisco State University. Teachers apply, are selected, and funded. They commit to providing professional development for other educators in their home communities. We have approx. 90 mentor teachers in more than 20 states. They present workshops, mentor other teachers, and implement the curriculum at their schools.				
Outcomes	Our goal is to provide excellent curriculum materials that bring cutting edge science to the classroom, support teaching the major concepts in science in an integrated course that includes the historical sweep of science (via timeline activities), computer/data base experiences that engage students with scientific data, and inquiry-based activities. The curriculum is based upon the "5 E's" model: Engage, Explore, Explain, Elaborate, and Evaluate, a proven model of instruction. Teacher materials and student data-base activities, media, and print materials are provided on CD-ROMs. Separately, collected science articles comprise the student readers for each module.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	NASA Systems Engineering Award	STEM Inventory	Entry# 17
Org-Type	Government-based		
Lead	NASA Ames Research Center	PoC	Deborah Bazar
PoC-Phone	650.604.2084	PoC-Email	Deborah.E.Bazar@nasa.gov
Address	M/S 226-4, Moffett Field, CA, 94035		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Engineering		
Level	Undergraduate		
Other-Objectives	aeronautics, systems engineering, mechanical engineering, engineering design process		
Served-per-Year	1000	Demographics	
Content	This award is an opportunity for university students to work with NASA engineers to conceive, design, fabricate and test a radio-controlled aircraft capable of taking off and landing while carrying a maximum load of cargo. Students will develop their aircraft and compete for the new NASA Systems Engineering Award as part of the Aero Design competition, made possible through a partnership between NASA's Aeronautics Research Mission Directorate and SAE International. Students competing for the award will receive e-ma feedback from NASA engineers who will review the students' work at two critical points during the design and development of their aircraft. Participation in the NASA Systems Engineering Award is optional. The purpose of this new award is to engage students in the systems engineering process. NASA wants to expose more of today's engineering students to systems engineering concepts and practice, which are integral to industry and research in today's world.		
Outcomes	With this competition, NASA continues its tradition of investing in the nation's education programs. The competition directly ties into the agency's major education goal of strengthening NASA and the nation's future workforce. Through this and the agency's other college and university programs, NASA will identify and develop the critical skills and capabilities needed to support its long-term aeronautics requirements.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	SAE International		

Program-Title	Science and Mathematics Education Center	STEM Inventory	Entry# 18
Org-Type	Higher-Education-based		
Lead	College of Science and Mathematics, CSU Fresno	PoC	David M. Andrews, Director
PoC-Phone	559-278-5174	PoC-Email	davidan@csufresno.edu
Address	2555 E. San Ramon Mail Stop SB 73, CA, 93740		
URL			
Service-Region	Central Coast		
Type	Professional Development for Teachers		
Subjects	General Science|Chemistry|Physics|Earth Science|Other		
Level	Teacher Certification|Professional Development		
Other-Objectives	planetary geology, modeling chemistry, modeling physics, bioinformatics, oceanography linked to NASA data, lesson study mathematics, problem solving, ecology of California and geology of California to name just a few areas		
Served-per-Year	5000	Demographics	
Content	The Science and Mathematics Education Center (SMEC) was developed in 1999 to provide services to enhance the preservice science and mathematics teacher preparation program at CSU Fresno and to expand professional development outreach programs and opportunities for science and mathematics teachers in the Central Valley of California. SMEC is linked closely with the CSU Chancellors Office in several important state-wide programs and works closely with NASA in educational outreach initiatives. SMEC has overseen several multi-million dollar science and mathematics education programs over the past six years. It is based in the CSU Fresno College of Science and Mathematics as an independent auxiliary organization. Primary funding is derived from such sources as NSF and the Ca Dept of Ed. The university provides infrastructure and some staffing.		
Outcomes	Improvement in the preparation and readiness of future science and mathematics teachers. It is also trying to play a role in recruitmer of science and mathematics teachers for middle and seconday school science and math classrooms. SMEC also target improvement in pegagogy as practiced in the K-12 science and math classroom and at the university to a degree. Professional development programs attempt to infuse outstanding pedagoagical practices in the delivery of science and math content.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	Yes. We have incorporated research based pedagogical science and math content programs for several years that have been nationally evaluated and nationally recognized.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Reedley College, Fresno City College, West Hills College, Lemoore, Fresno Unified School District, Sanger Unified School District, Tulare City Schools, Kings Canyon School District, Central Unified School District, Selma Unified School District, Visalia Unified School District, Sierra Unified School District, Madera Unified School District, Dinuba Unified School District, UC Merced, CSU Office of the Chancellor and CSU campuses NASA, NSF, US Dept of Ed, DOE, Ca Dept of Ed		

Program-Title	DREAMS (an ARCHES Collaborative)		STEM Inventory	Entry#	19

Org-Type	Higher-Education-based|Collaborative Group		
Lead	California State University Northridge	PoC	Ivan Cheng, Project Director
PoC-Phone	(818) 677-6791	PoC-Email	icheng@csun.edu
Address	18111 Nordhoff Street, CA, 91330-8265		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Math		
Level	Middle School (5-8th grade)		
Other-Objectives	Mathematics (algebra and pre-algebra), robotics		
Served-per-Year	200	Demographics	American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino

Content

The primary focus of the DREAMS collaborative is to improve the success of students in first year algebra by developing resources and engaging activities for students and teachers. The primary activity involves teacher professional development using the Student Improvement Through Teacher Empowerment (SITTE) process. This model uses summer school/inter-session algebra classes as the laboratory in which teachers experiment with alternative strategies to help students achieve. A key feature of the SITTE model is daily collaboration and coaching to analyze what works with students and to refine practice based on this daily collaboration. Additional activities include the use of robotics to provide relevant experiences where the students can apply the mathematics that they learn, as well as support programs that enhance student study skills and parental involvement.

Outcomes

Student achievement is evidenced by increased rates of passing algebra and improved performance on various standardized tests. Teacher improvement is evidenced by improved planning and delivery of instruction.

Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	ARCHES grant seed money (additional grant funding being sought)		
How-Assessed			

Best-Practice-Why

The SITTE model of professional development and the integration of robotics into a summer program to provide rigor, relevance, and relationships represent a distinctly different, yet replicable approach for providing student support as well as teacher professional development. The foundation of the SITTE approach is that each lesson (math and robotics) is strategically designed around daily evidence of student understanding. As a result, teachers gain experience in thinking through their lessons, and in adapting instruction to make content accessible. And by empowering teachers to get through to their students rather than just getting through a curriculum, the teachers experience success with students. This, in turn, gives teachers the confidence to take additional risks in trying new teaching methods. The results of initial experiments with SITTE model of professional development are very positive and suggest that such an approach can impact student achievement and teacher beliefs and practices substantially. In three small previous implementations (N = 4, N= 3, N = 3) the pass rate of algebra for historically unsuccessful students doubled. Additionally, qualitative data suggest that teachers found themselves empowered to construct their own learning and thus experience transformative learning During SITTE, they had the time to review their studentsí work, reflect on their teaching, and refine their strategies. And as the teacher continued to develop new strategies and lessons they also began to experience generative learning. For example, when asked about how SITTE affected him, one teacher replied, ìMy last three semesters here I was vaguely looking for something that I could use to hel my students so they can go out of my classroom with something. But I just could not see how. Now I feel like I can make the difference.î Another teacher reflected, ìI grew as a teacher. I learned to value othersí ideas, and most important, I learned what collaboration is about.î These comments reflect the shifts in the teachersí beliefs and practices that subsequently affected how they delivered instruction in their regular classes.

Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	

Other-Orgs

Alliance for Regional Collaboration to Heighten Educational Success (ARCHES) The Economic Alliance of the San Fernando Valley Los Angeles Unified School District (Local District 2) Los Angeles Mission College Project GRAD Los Angeles

Program-Title	Single Subject Science Teacher Preparation	STEM Inventory	Entry# 20
Org-Type	Higher-Education-based		
Lead	Cal Poly Pomona	PoC	Jodye Selco, Professor
PoC-Phone	(909) 869-4552	PoC-Email	jiselco@csupomona.edu
Address	3801 W. Temple Ave, CA, 91768		
URL			
Service-Region	Southern California		
Type	Professional Development for Teachers		
Subjects	General Science|Math		
Level	Graduate|Teacher Certification|Professional Development		
Other-Objectives	all science and mathematics		
Served-per-Year		Demographics	
Content	we service all K-12 teachers, help prepare science teachers for secondary teaching, provide scholarships for undergraduate and graduate students intending to teach secondary science, provide in-service workshops to all teachers, provide FEDCO grants for all full-time K-12 teachers in Eastern LA County and all of San Bernardino County.		
Outcomes	Help prepare more, well qualified science teachers for K-12		
Started	30 years ago	Funded-Through	2009
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials	California state education funds		
Other-Funding			
How-Assessed			
Best-Practice-Why	Yes. each workshop is evaluated. we are presently working on longitudinal studies that will provide data to support the efficacy of our programs		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	IASTA (Inland Area Science Teachers Association) CSTA NSTA San Gabriel Valley Science Project BioTrek FEDCO Classroom Enrichment Grant Project		

Program-Title	NASA Aeronatics Museum Field Trip Programs	STEM Inventory	Entry# 21

Org-Type	Government-based		
Lead	NASA Ames Research Center	PoC	Christina O'Guinn
PoC-Phone	650-604-2891	PoC-Email	christina.m.oguinn@nasa.gov
Address	NASA Ames MS 226-4 Moffett Field, CA, 94035		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Space|Engineering		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|Professional Development		
Other-Objectives	Aeronautics (forces of flight, experimentation and investigation and engineering design, science and engineering careers)		
Served-per-Year		Demographics	

Content

(Note: In the Grade level question, it says to check all th at apply, but it only allows you to select one.) NASA Ames Research Center is partnering with Hiller Aviation Museum to develop two aeronautics field trip programs that will be tested and implemented at Hiller Avaiation Museum and, once proven, will be freely disseminated to aviation museums and science centers nation-wide. The 'Skyways' aviation math field trip project, currently being piloted at Hiller with San Francisco Bay Area schools, uses a version of NASA's Smart Skies software complemented by a museum tour and a flight planning challenge developed by Hiller. During the Smart Skies portion of the field trip, students are challenged to manage aircraft approaching a major airport. Using math concepts, students adjust aircraft trajectories and speeds to safely and efficiently route aircraft to their destination. Smart Skies has been tested with thousands of students across the country and is a part of an educational outreach effort between NASA and the Federal Aviation Administration. Th 'Four to Soar' field trip project engages students in hands-on inquiry museum activities and pre/post engineering design challenge classroom activities. At the museum, students will experiment with aeronautical forces, learning first-hand how the design of a propeller, the angle of a wing and the location of the landing gear affect thrust, lift and drag respectively. In the classroom, students will apply these principles to design propellers, airplane wings and tails to meet certain engineering criteria. Outcomes-Generated: This program is designed to meet NASA's Informal Education Outcome 3.1: Provide informal education support resources that use NASA, themes and content to 1) enhance participant skills and proficiency in STEM disciplines. 2) inform participants about STEM career opportunites 3) communicate information about NASA’s mission activities.

Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			

Other-Funding

This is a non-reimburseable SpaceAct agreement between NASA Ames and HIller Aviation Museum. A small amount of NASA resources is provided in-kind for NASA personnel time to modify, test and disseminate existing NASA aero educational resources for the museum environment. Hiller Aviation Museum raises it's own funding from corporate sponsors or foundations to cover it's costs of the partnership. Eventually the program is planned to be disseminated to museums and science centers nation-wide

How-Assessed

Best-Practice-Why

This program is still in development, so it's still too early to say. However, the program is based on research-based instructional methods in STEM education, includes a strong evaluation component and strategically targets the overlap of formal and informal audiences (school field trips) where a greater impact is more likely than in only one setting.

Promising-Practice

Yes. This program demonstrates a promising partnership model: matching NASA content, facilities and people with educational non-profits who have established audiences (for testing feasibility and for dissemination) and with corporate sponsors who provide funding NASA also serves as a nation-wide dissemination mechanism so that what might otherwise serve as only a local program can be used widely by aviation museums and science centers across the country. This can be especially beneficial to smaller museums who lack the resources to develop programs in-house.

Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Federal Aviation Administration National Air and Space Museum: Steven F. Udvar-Hazy Center		

Program-Title	Tiger Woods Learning Center		STEM Inventory	Entry#	22
Org-Type	Non-Profit-based				
Lead	Tiger Woods Learning Center	PoC	Mail contact through website window		
PoC-Phone	714-765-8000	PoC-Email	Mail contact through website window		
Address	One Tiger Woods Way, Anaheim, CA, 92801				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Space|Engineering|Robotics|Other				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives	We offer activites and courses that revolve around careers in math, science, technology and language arts, such as: Activities in Web Design, Video Production, Robotics, Creative Writing, and Drama. Courses in Aerospace, Graphic Design, DNA Lab, Home Design & Repair, Communications, Multimedia, Robotics, Digital Manufacturing, and Universal or Engineering.				
Served-per-Year		Demographics			
Content	Activities at the TWLC were designed by kids and for kids. There are different programs for kids of different grade levels. Grades 5-6 Play the role of crime scene investigator as you put evidence together to identify a prime suspect. Extract DNA from evidence found at a fictional crime scene. Collect and analyze fingerprints and hair samples as you solve the crime. Sound like fun? If so, we'll show you what steps you must take to become a real crime scene investigator. But, that's not all! You can also participate in activities like Web Design, Video Production, Robotics, Creative Writing and Drama. Grades 7-8 Have you ever thought of becoming an architect or ever wondered, "What's so important about genetics?" Would you like to practice your piloting techniques in a flight simulator? If so, then the Career Exploration program is for you! Kids can choose from courses related to Aerospace, Graphic Design, DNA Lab, Home Design & Repair, Robotics, Communications, Engineering or Universal Science. After you discover your interests, we will help you explore various careers that relate to them. Grades 9-12 Learn what it takes to design, test, and launch a rocket! Work with animation, audio and video to create CDs and interactive websites. Use your creativity to design an original toy or capture exciting photos for an advertising campaign. All this and more is available to students in the Career Preparation program. Choose from courses in Aerospace, Communications, Digital Manufacturing, Multimedia, Robotics, Universal Science or Engineering. Once you determine your career interests, we will match you with a volunteer career mentor to provide guidance, answer questions, and give you an inside look into your future.				
Outcomes	The Tiger Woods Learning Center is here to get students thinking about the role education plays in their futures. We want to show them how to relate what they learn in school to their future careers. We offer exciting courses that revolve around careers in math, science, technology and language arts. Because there is something for everyone at the TWLC, we hope to show students how their personal interests can develop into an exciting career. And we do all this in a 35,000-square-foot facility, using the latest technology in a completely wireless environment.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Donations|Other	Primary-$			
Materials					
Other-Funding	The program's primary funding is through organizations and individual donors that support the program.				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Tiger Woods Target Stores HSBC Buick Motor Division American Express McDonald's Corporation Accenture County of Orange AT&T City of Anaheim Huish Family Once Upon A Time Foundation Augusta National Golf Club ADT Coad Family Homer Family PGA TOUR Draper Foundation The Boeing Company Intel Dell Nike Amateur Athletic Foundation Weingart Foundation Microsoft Deutsche Bank USGA				

Program-Title	Mathematics Engineering Science Achievement	STEM Inventory		Entry#	23
Org-Type	Higher-Education-based				
Lead	University of California	PoC	Juanita Muniz-Torres		
PoC-Phone	510-987-9381	PoC-Email	juanita.muniz-torres@ucop.edu		
Address	300 Lakeside Drive, 7th Floor, Oakland, CA, 94612				
URL					
Service-Region	All California				
Type	Student Program				
Subjects	General Science|Math|Engineering				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	MESA enables educationally disadvantaged students to prepare for and graduate from a four-year college or university with a math-based degree in areas such as engineering, the sciences, computer science, and mathematics. There are three programs that MESA offers, the first is the MESA Schools Program. This program is for students in middle and high schools (and some elementary schools). I serves to assist students in excelling in math and science and to be competitively eligible for most rigorous collegs and universities. The second program is the MESA Community College Program, this program helps community college students excel academiccaly and transfer to four-year institution. It also aims to excel students in the fields of math, engineering and science. Through this program students learn firsthand about career options and learn about scholarships, internships, and special programs. The MESA Engineering Program is the third program that is offered, targeting university students enrolled in colleges of engineering so they will successfully attain their baccalaureates. The program offers a wide array of academic support as well as exposure to different careers available to engineering and computer science graduates.					
Outcomes	MESA has particular interest in and focus on students from those groups who historically have had the lowest levels of attainment to four-year and graduate level programs. By closing this achievement gap, MESA students and graduates will be better able to make significant contributions to the socioeconomic well-being of their families and their communities.				
Started		Funded-Through			
Length		Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding	The program is funded by the state legislature, corporate contributions and grants.				
How-Assessed					
Best-Practice-Why	MESA has received national recognition for its success. MESA has been named as one of the most innovative public programs in the country by Innovations in American Government, a project of the Kennedy School of Government at Harvard University and the Ford Foundation. MESA is a winner of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. MESA is the largest consortium of programs to receive National Science Foundation scholarships earmarked to support community college students who transfer to four-year institutions.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	California State University California Community Colleges Independent colleges and universities California Department of Education Community-based education centers School districts and individual schools				

Program-Title	Career Voyages	STEM Inventory	Entry# 24

Org-Type	Government-based		
Lead	U.S. Department of Labor and U.S. Department of Education	PoC	N/A
PoC-Phone	877-872-5627	PoC-Email	career.voyages@dol.gov
Address	N/A		
URL	http://www.careervoyages.gov/		
Service-Region	Nationwide		
Type	Student Program|Resources|Other		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	Pre-School|Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate|Professional Development|Retirees/Career-changers		
Other-Objectives	Career Voyages offers information on high growth industries and emerging industries, industries where there is a demand for bright and talented students. Such high growth and emerging industries include advanced manufacturing, aerospace, automotive, energy, transportation, biotechnology, geospatial technology, and nanotechnology.		
Served-per-Year		Demographics	
Content	Career Voyages is part of a strategic effort, called the High Growth Job Training Initiative, to prepare workers to take advantage of new and increasing job opportunities in high growth, in-demand and economically vital sectors of the American economy. Fields like health care, information technology, and advanced manufacturing have jobs and solid career paths left untaken due to a lack of people qualified to fill them. Career Voyages also seeks to highlight the specific occupations within each industry that have the most demand. These occupations are selected using the Bureau of Labor Statistics' (BLS) Industry output and employment projections, which is produced twice a year and projects future trends over a ten year period (currently 2004-2014). The Career Voyages website is designed to provide information on high growth, in-demand occupations along with the skills and education needed to attain those jobs. It serves to inform users of occupations experiencing growth and for which there are an increasing number of job openings; make users aware of the skills and education required for these occupations; inform of the training and education that is available to prepare for these occupations; and help users advance in a career path toward a brighter future! Also offered on the website are the InDemand magazines which highlight careers in different industries. Each issue explores careers in a different high growth industry and provides students as well as guidance counselors, parents and teachers with interesting and relevant information about career opportunities, education and the skills needed for various jobs. It offers resources to explore careers and tips about how to help students build successful futures. http://www.careervoyages.gov/indemandmagazine-main.cfm		
Outcomes	Career Voyages is intended to provide information on high growth, in-demand occupations along with the skills and education needed to attain these jobs. The resources on this site will help those who are looking for employment to find the best route in landing a job in their desired careers.		
Started	Oct-03	Funded-Through	
Length		Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	National Association of Manufacturers' Automotive Careers Today Associated Builders & Contractors AED Careers Associated General Contractors of America beyondRoads.com Home Builder's Institute OwnYourRoad.com Center for Energy Workforce Development's ElectrifyingCareers.com EnergyProfessions.com KZO Network's Geospatial 21 Site American Academy of Orthotists and Prosthetists American Health Information Management Association American Osteopathic Association National Athletic Trainers' Association Johnson & Wales University's National Retail Federation Foundation Layover.com		

Program-Title	Team America Rocketry Challenge	STEM Inventory	Entry# 25
Org-Type	Professional Association-based		
Lead	Aerospace Industries Association & National Association of Rocketry	PoC	N/A
PoC-Phone	N/A	PoC-Email	rocketcontest@aia-aerospace.org
Address	1000 Wilson Boulevard Suite 1700 Arlington, VA 22209		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Chemistry|Physics|Engineering		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The annual Team America Rocketry Challenge is the largest model rocket showcase on the planet. This year's Challenge was to design, build, and fly a model rocket carrying a raw egg and return it safely to the ground while staying aloft for exactly 45 seconds and reaching an altitude of 850 feet. Every year the competition changes guidelines and next year a new exciting challenge will await our contestants.		
Outcomes	The program aims to create and maintain interest in rockets for students in middle and high schools.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	National Aeronautics and Space Administration Department of Defense American Association of Physics Teachers 3M Company AAI Corporation Aerojet Alliant Techsystems Inc. American Pacific Corporation Analytical Graphics, Inc. Argo-Tech Corporation Aviall, Inc. BAE SYSTEMS North America Barnes Aerospace The Boeing Company Crane Aerospace Cubic Corporation Ducommun Incorporated DRS Technologies, Inc. Embraer Aircraft Holding Inc. General Electric Company GKN Aerospace Services Goodrich Corporation W. L. Gore & Associates, Inc. Harris Corporation Honeywell ITT Industries Lockheed Martin Corporation Natel Engineering Co. Inc. National Technical Systems (NTS) Northrop Grumman Corporation Parker Aerospace The Purdy Corporation Raytheon Company Rockwell Collins Rolls-Royce North America Inc. Smiths Aerospace Mechanical Systems Swales Aerospace Textron United Technologies Corporation Vought Aircraft Industries, Inc. Woodward Governor Company		

Program-Title	Ask A Scientist	STEM Inventory	Entry# 26
Org-Type	Government-based		
Lead	U.S. Department of Energy	PoC	N/A
PoC-Phone	N/A	PoC-Email	help@newton.dep.anl.gov
Address	9700 S. Cass Ave. Argonne, IL 60439		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Professional Development		
Other-Objectives			
Served-per-Year		Demographics	
Content	On Ask A Scientist users, mainly K-12 educators and students, submit questions about science to our site. Questions asked should focu on information that is not commonly found in libraries, reference books or text books. There are certain topics and types of questions that Ask A Scientist does not address. The questions are answered by worldwide volunteer scientists.		
Outcomes	The website aims to aid educators and students in finding answers to questions that books and other reference materials do not provide. Volunteer scientists help our users answer these questions which in turn increases our database, thus the more questions we answer the more answers we have for users who are curious about science.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	COSMOS	STEM Inventory	Entry# 27
Org-Type	Higher-Education-based		
Lead	University of California	PoC	N/A
PoC-Phone	N/A	PoC-Email	cosmos@ucop.edu
Address	1111 Franklin Street 9th Floor Oakland CA, 94607		
URL			
Service-Region	All California		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The mission of COSMOS is to motivate the most creative minds of the new generation of prospective scientists, engineers and mathematicians who will become leaders for California, the nation, and the world. At the request of the State of California, UC provides an opportunity for students who wish to learn advanced mathematics and science and to prepare for careers in these areas. The California State Summer School for Mathematics and Science (COSMOS) is a residential academic experience for top high school students in mathematics and science. The COSMOS course clusters address topics not traditionally taught in high schools such as astronomy, aerospace engineering, biomedical sciences, computer science, wetlands ecology, ocean science, robotics, game theory, and more.		
Outcomes	The program aims to create a community of students who participate in and contribute to an intensive academic experience delivered by distinguished educators and scholars. Through the program students will learn more about courses that generally are not offered in high schools. In taking these courses COSMOS hopes that students will gain interest and pursue career goals in these challenging and exciting fields.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	GLOBE	STEM Inventory	Entry# 28
Org-Type	Government-based		
Lead	GLOBE	PoC	N/A
PoC-Phone	1-800-858-9947	PoC-Email	help@globe.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	GLOBE seeks to establish a community of students, teachers, scientists, and citizens working together to better understand, sustain, and improve Earth's environment at local, regional, and global scales. Our program strives to assist in the teaching and learning of science, enhance environmental literacy and stewardship, and promote scientific discovery.		
Outcomes	The program intends to improve student achievement across the curriculum with a focus on student research in environmental and Earth system science; enhance awareness and support activities of individuals throughout the world to benefit the environment; contribute to scientific understanding of Earth as a system; and inspire the next generation of global scientists.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	The program is funded by the National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF)		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Colorado State University (CSU) National Aeronautics and pace Administration (NASA) U.S. Department of State U.S. Department of Education U.S. Department of Commerce Program_Other-Organizations: University Corporation forAtmospheric Research (UCAR) National Science Foundation (NSF) National Science Teachers Association American Council on the Teaching of Foreign Languages The Association of American Geographers AWS/International Partners in Education MyWonderfulWorld.org Institute of Electrical and Electronic Engineers America View Numerical Terradynamic Simulation Group TERC		

Program-Title	Regolith	STEM Inventory	Entry# 29
Org-Type	Non-Profit-based		
Lead	Regolith	PoC	N/A
PoC-Phone	N/A	PoC-Email	enquiries@regolith.com
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Space|Engineering|Robotics		
Level	Elementary School (K-5th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Regolith.com is a wonderful resource of pictures showing the many, many features of our beautiful planet: its rocky crust, its separate world of water, its atmosphere, its life forms and their habitats. Our web site is currently under construction and some 2000 images are in the process of being scanned.		
Outcomes	Regolith.com aims to combine images of the earth from its own library of resources with material submitted by visitors to this site who have interesting materials to share with other visitors.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Project Lead the Way	STEM Inventory	Entry# 30
Org-Type	Higher-Education-based		
Lead	San Diego State University	PoC	Dr. Bruce Westermo
PoC-Phone	619-594-7007	PoC-Email	westermo@engineering.sdsu.edu
Address	5500 Campanile Drive San Diego, CA 92182		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Project Lead The Way (PLTW) is a not-for-profit organization partnering with public schools, organizations in the private secctors, and higher education institutions to increase the number and quality of engineers graduating from our educational system. PLTW provides a four year flexible, pre-engineering, sequence of course work for high school students and a challenging, 40 week long, "activity oriented" program for middle school students. Students are introduced to the scope, rigor and discipline of engineering and engineering technology to really get a feeling of the rewards and benefits of being a part of such a powerful career. PLTW courses utilize project- and problem-based learning that teaches students how to apply what they are learning to real-life situations. These courses provide opportunities for students to understand the scientific process, engineering problem-solving and the application of technology; understand how technological systems work with other systems; use mathematics knowledge and skills in solving problems; communicate effectively through reading, writing, listening and speaking; and work effectively with others.		
Outcomes	PLTW aims to: Increase the number of young people, without regard to gender or ethnic origin, who pursue science, engineering and technology related careers requiring a two or four year degree. Increase females and underrepresented groups entering science, engineering and technology related careers. Provide relevant programs that help prep students and prepared them for a highly skilled working environment. Develop assessment tools to evaluate the success of San Diego PLTW. Support the development of all teachers, and counselors. Increase the value of San Diego PLTW by enhancing the image and visibility by our effectivenesss and results.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	High Schools That Work (HSTW) QUALCOMM Girand Foundation The McCarthy Family Foundation The San Diego Foundation Eric & Margaret Johnson Sony Biogen Idec Pete Garcia Michael Chapin AnnualSales: : Ongoing-Effort		

Program-Title	Career Voyages	STEM Inventory	Entry# 31
Org-Type	Government-based		
Lead	U.S. Department of Labor and U.S. Department of Education	PoC	N/A
PoC-Phone	877-872-5627	PoC-Email	career.voyages@dol.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Career Voyages is part of a strategic effort, called the High Growth Job Training Initiative, to prepare workers to take advantage of new and increasing job opportunities in high growth, in-demand and economically vital sectors of the American economy. Fields like health care, information technology, and advanced manufacturing have jobs and solid career paths left untaken due to a lack of people qualified to fill them. Career Voyages also seeks to highlight the specific occupations within each industry that have the most demand. These occupations are selected using the Bureau of Labor Statistics' (BLS) Industry output and employment projections, which is produced twice a year and projects future trends over a ten year period (currently 2004-2014). The Career Voyages website is designed to provide information on high growth, in-demand occupations along with the skills and education needed to attain those jobs. It serves to inform users of occupations experiencing growth and for which there are an increasing number of job openings; make users aware of the skills and education required for these occupations; inform of the training and education that is available to prepare for these occupations; and help users advance in a career path toward a brighter future! Also offered on the website are the InDemand magazines which highlight careers in different industries. Each issue explores careers in a different high growth industry and provides students as well as guidance counselors, parents and teachers with interesting and relevant information about career opportunities, education and the skills needed for various jobs. It offers resources to explore careers and tips about how to help students build successful futures.		
Outcomes	Career Voyages is intended to provide information on high growth, in-demand occupations along with the skills and education needed to attain these jobs. The resources on this site will help those who are looking for employment to find the best route in landing a job in their desired careers.		
Started	October 2003, Parents, Career changers	Funded-Through	Ongoing-Effort
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	National Association of Manufacturers' Automotive Careers Today Associated Builders & Contractors AED Careers Associated General Contractors of America beyondRoads.com Home Builder's Institute OwnYourRoad.com Center for Energy Workforce Development's ElectrifyingCareers.com EnergyProfessions.com KZO Network's Geospatial 21 Site American Academy of Orthotists and Prosthetists American Health Information Management Association American Osteopathic Association National Athletic Trainers' Association Johnson & Wales University's National Retail Federation Foundation Layover.com		

Program-Title	Mathematics Engineering Science Achievement	STEM Inventory		Entry#	32
Org-Type	Higher-Education-based				
Lead	University of California	PoC	Juanita Muniz-Torres		
PoC-Phone	510-987-9381	PoC-Email	juanita.muniz-torres@ucop.edu		
Address	300 Lakeside Drive 7th Floor Oakland, CA 94612				
URL					
Service-Region	All California				
Type	Student Program				
Subjects	General Science|Math|Computer Science|Engineering				
Level	Middle School (5-8th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	MESA enables educationally disadvantaged students to prepare for and graduate from a four-year college or university with a math-based degree in areas such as engineering, the sciences, computer science, and mathematics. There are three programs that MESA offers, the first is the MESA Schools Program. This program is for students in middle and high schools (and some elementary schools). I serves to assist students in excelling in math and science and to be competitively eligible for most rigorous collegs and universities. The second program is the MESA Community College Program, this program helps community college students excel academiccaly and transfer to four-year institution. It also aims to excel students in the fields of math, engineering and science. Through this program students learn firsthand about career options and learn about scholarships, internships, and special programs. The MESA Engineering Program is the third program that is offered, targeting university students enrolled in colleges of engineering so they will successfully attain their baccalaureates. The program offers a wide array of academic support as well as exposure to different careers available to engineering and computer science graduates.					
Outcomes					
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	California State University California Community Colleges Independent colleges and universities California Department of Education Community-based education centers School districts and individual schools				

Program-Title	Tiger Woods Learning Center		STEM Inventory	Entry#	33
Org-Type	Non-Profit-based				
Lead	Tiger Woods Learning Center	PoC	N/A		
PoC-Phone	714-765-8000	PoC-Email	Mail contact through website window		
Address	One Tiger Woods Way Anaheim, CA 92801				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Math|Computer Science|Engineering|Robotics				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	Activities at the TWLC were designed by kids and for kids. There are different programs for kids of different grade levels. Grades 5-6 Play the role of crime scene investigator as you put evidence together to identify a prime suspect. Extract DNA from evidence found at a fictional crime scene. Collect and analyze fingerprints and hair samples as you solve the crime. Sound like fun? If so, we'll show you what steps you must take to become a real crime scene investigator. But, that's not all! You can also participate in activities like Web Design, Video Production, Robotics, Creative Writing and Drama. Grades 7-8 Have you ever thought of becoming an architect or ever wondered, "What's so important about genetics?" Would you like to practice your piloting techniques in a flight simulator? If so, then the Career Exploration program is for you! Kids can choose from courses related to Aerospace, Graphic Design, DNA Lab, Home Design & Repair, Robotics, Communications, Engineering or Universal Science. After you discover your interests, we will help you explore various careers that relate to them. Grades 9-12 Learn what it takes to design, test, and launch a rocket! Work with animation, audio and video to create CDs and interactive websites. Use your creativity to design an original toy or capture exciting photos for an advertising campaign. All this and more is available to students in the Career Preparation program. Choose from courses in Aerospace, Communications, Digital Manufacturing, Multimedia, Robotics, Universal Science or Engineering. Once you determine your career interests, we will match you with a volunteer career mentor to provide guidance, answer questions, and give you an inside look into your future.				
Outcomes	The Tiger Woods Learning Center is here to get students thinking about the role education plays in their futures. We want to show them how to relate what they learn in school to their future careers. We offer exciting courses that revolve around careers in math, science, technology and language arts. Because there is something for everyone at the TWLC, we hope to show students how their personal interests can develop into an exciting career. And we do all this in a 35,000-square-foot facility, using the latest technology in a completely wireless environment.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Tiger Woods Target Stores HSBC Buick Motor Division American Express McDonald's Corporation Accenture County of Orange AT&T City of Anaheim Huish Family Once Upon A Time Foundation Augusta National Golf Club ADT Coad Family Homer Family PGA TOUR Draper Foundation The Boeing Company Intel Dell Nike Amateur Athletic Foundation Weingart Foundation Microsoft Deutsche Bank USGA				

Program-Title	DREAMS (an ARCHES Collaborative)	STEM Inventory	Entry# 36
Org-Type	Higher-Education-based		
Lead	California State University Northridge	PoC	Ivan Cheng
PoC-Phone	(818) 677-6791	PoC-Email	icheng@csun.edu
Address			
URL			
Service-Region	Southern California		
Type	Professional Development for Teachers		
Subjects	Math		
Level	Middle School (5-8th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The primary focus of the DREAMS collaborative is to improve the success of students in first year algebra by developing resources and engaging activities for students and teachers. The primary activity involves teacher professional development using the Student Improvement Through Teacher Empowerment (SITTE) process. This model uses summer school/inter-session algebra classes as the laboratory in which teachers experiment with alternative strategies to help students achieve. A key feature of the SITTE model is daily collaboration and coaching to analyze what works with students and to refine practice based on this daily collaboration. Additional activities include the use of robotics to provide relevant experiences where the students can apply the mathematics that they learn, as well as support programs that enhance student study skills and parental involvement.		
Outcomes	Student achievement is evidenced by increased rates of passing algebra and improved performance on various standardized tests. Teacher improvement is evidenced by improved planning and delivery of instruction.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Los Angeles Unified School District (Local District 2) Los Angeles Mission College Project GRAD Los Angeles The Economic Alliance of th San Fernando Valley		

Program-Title	NASA Systems Engineering Award	STEM Inventory	Entry# 38
Org-Type	Government-based		
Lead	NASA Ames Research Center	PoC	Deborah Bazar
PoC-Phone	650.604.2084	PoC-Email	Deborah.E.Bazar@nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Engineering		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	This award is an opportunity for university students to work with NASA engineers to conceive, design, fabricate and test a radio-controlled aircraft capable of taking off and landing while carrying a maximum load of cargo. Students will develop their aircraft and compete for the new NASA Systems Engineering Award as part of the Aero Design competition, made possible through a partnership between NASA's Aeronautics Research Mission Directorate and SAE International. Students competing for the award will receive e-ma feedback from NASA engineers who will review the students' work at two critical points during the design and development of their aircraft. Participation in the NASA Systems Engineering Award is optional. The purpose of this new award is to engage students in the systems engineering process. NASA wants to expose more of today's engineering students to systems engineering concepts and practice, which are integral to industry and research in today's world.		
Outcomes	With this competition, NASA continues its tradition of investing in the nation's education programs. The competition directly ties into the agency's major education goal of strengthening NASA and the nation's future workforce. Through this and the agency's other college and university programs, NASA will identify and develop the critical skills and capabilities needed to support its long-term aeronautics requirements.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	SETI Institute	STEM Inventory	Entry# 39
Org-Type	Non-Profit-based		
Lead	Voyages Through Time: An Integrated High School Science Curriculum	PoC	Pamela Harman
PoC-Phone	650-961-6633	PoC-Email	pharman@seti.org
Address			
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers		
Subjects	General Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Voyages Through Time: A standards-based curriculum for a high school integrated science course centered on the unifying theme of evolution. The curriculum is presented in 6 technology-based modules: Cosmic Evolution, Planetary Evolution, Origin of Life, Evolution of Life, Hominid Evolution, and Evolution of Technology. Together, they comprise a year-long course; individually, the modules can be integrated into discipline based courses such as earth and space science, biology, physics, etc. Each summer, we train 20-25 high schoo teacher-leaders in ASSET: Astrobiology Summer Science Experience for Teachers at San Francisco State University. Teachers apply, are selected, and funded. They commit to providing professional development for other educators in their home communities. We have approx. 90 mentor teachers in more than 20 states. They present workshops, mentor other teachers, and implement the curriculum at their schools.		
Outcomes	Our goal is to provide excellent curriculum materials that bring cutting edge science to the classroom, support teaching the major concepts in science in an integrated course that includes the historical sweep of science (via timeline activities), computer/data base experiences that engage students with scientific data, and inquiry-based activities. The curriculum is based upon the "5 E's" model: Engage, Explore, Explain, Elaborate, and Evaluate, a proven model of instruction. Teacher materials and student data-base activities, media, and print materials are provided on CD-ROMs. Separately, collected science articles comprise the student readers for each module.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	San Francisco State University NASA Ames Research Center NASA Astrobiology Institute California Academy of Sciences		

Program-Title	Themed Housing for STEM majors		STEM Inventory	Entry#	42
Org-Type	Higher-Education-based				
Lead	College of Natural Sciences; CSU, Chico	PoC	Margaret Owens		
PoC-Phone	530-898-6121	PoC-Email	maowens@csuchico.edu		
Address	400 West First St., Chico CA 95929-0555				
URL					
Service-Region	Northern California				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics				
Level	Undergraduate				
Other-Objectives	ProgramDescription_Activities: The College of Natural Sciences at CSU, Chico is an active participant in two themed housing environments: • Residents (14) in the Konkow Math/Science House are provided with in-house tutoring and personalized academic advising. Many residents plan to be high school mathematics or science teachers. The Mechoopda Hall housing environment is designed to help students in technical majors and the sciences develop stronger bridges between their major field of choice and their co-curricular experience – and provide a living environment that is conducive to students in demanding majors with high academic expectations. Student organizations within the colleges plan outreach activities designed to introduce new students to a wide variety c extra-curricular activities within the colleges – and to help them make connections to their chosen major and future career. Primary-Focus-Program: Konkow House - secondary mathematics and science teaching					
Served-per-Year	134	Demographics			
Content	The College of Engineering, Computer Science, and Construction Management and the College of Natural Sciences are co-sponsors of the Mechoopda Theme House for (120) students majoring in Engineering, Computer Science, Computer Graphics, Construction Management, Manufacturing Technology, Concrete Industry Management, or any major offered by the departments of Biological Sciences, Chemistry, Geological and Environmental Sciences, Mathematics and Statistics, Nutrition and Food Sciences, Nursing or Physics.				
Outcomes	Outcomes-Generated: We have found that the combination of living with like minded students and receiving academic support helps students be highly successful in what can be a very challenging first year. The Konkow Mathematics and Science House boasts apartment-style living, including a huge kitchen, living room, and dining room shared by only 14 people. Residents in this house are provided with in-house tutoring and personalized academic advising. Residents are guaranteed registration in selected sections of appropriate mathematics courses so they may take classes with each other.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice	We are confident that providing a housing experience in which students in STEM majors live, work, and play together will strengthen the students' sense of belonging to the STEM community and will improve student retention.				
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Project Kaleidoscope	STEM Inventory	Entry# 43
Org-Type	Higher-Education-based		
Lead	Project Kaleidoscope	PoC	Jeanne L. Narum, Director
PoC-Phone	202-232-1300	PoC-Email	pkal@pkal.org
Address			
URL	http://www.pkal.org/		
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	Project Kaleidoscope (PKAL) is one of the leading advocates in the United States for building and sustaining strong undergraduate programs in the fields of science, technology, engineering and mathematics (STEM). KAL focuses on building learning environments that attract and sustain undergraduate students to the study of STEM fields and motivate them to consider careers in related fields. PKAL works to equip teams of faculty and administrators for leadership in reform at the local level, so that students and science are better served, as well as to encourage broad understanding of how strong undergraduate STEM programs serve the national interest. PKAL programs and publications spotlight successful efforts on campuses across the country in addressing three current challenges facing higher education leaders, recognizing that these challenges are also opportunities to shape the future.		
Outcomes	The metaphor of the kaleidoscope signals that although there are patterns for reform, each pattern must fit local circumstances. Each individual faculty member, each college and university, must determine how the various facets must come together to serve their students and institutional mission. The work of PKAL is to put the spotlight on successful patterns of reform, encourage their adaptation in other settings, and support collaborative efforts toward that end.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Foundation|Government|Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Barnard College, James Madison University,Huston-Tillotson University,University of Portland, National Academy of Engineering, University of Missouri, Harvey Mudd College, Agnes Scott College, City Colleges of Chicago Harold Washington College, University of Nebraska, Chicago State University, Clark Atlanta University, United States Military Academy, Bryn Mawr College, University of Michigan-Ann Arbor, University of Central Florida, William Jewell College, Rensselaer Polytechnic Institute University of Arizona, Lewis and Clark College, University of Richmond,Morgan State University, Gainesville College, Carleton College, University of Maryland College Park, St. Lawrence University, Duke University, University of Detroit Mercy, Jacksonville University,Wells College University of North Carolina at Greensboro, Old Dominion University, American Chemical Society, University of Missouri-Kansas City, Albion College, Grossmont College, Pomona College University of Richmond New Mexico Highlands University, University of Mary Washington, Rowar University, Oakton Community College		

Program-Title	Project M.A.T.H. (Mathematics And Teaching	STEM Inventory		Entry#	44
Org-Type	Higher-Education-based				
Lead	Center for Mathematics and Science Education	PoC	Jorgen Berglund		
PoC-Phone	530 898-5350	PoC-Email	jjberglund@csuchico.edu		
Address	400 W. 1st St. CA 95929-0530				
URL					
Service-Region	Northern California				
Type	Student Program				
Subjects	Math				
Level	Undergraduate				
Other-Objectives	Secondary mathematics topics viewed from an advanced standpoint.				
Served-per-Year	25	Demographics			
Content	A 4-year undergraduate learning community model for the preparation of future secondary math teachers. It features common residence hall living with in-house math tutoring, bi-weekly seminars that include middle and high school mentor teachers, early field experiences in local schools throughout the four years and culminates in team-teaching a university class of developmental mathematics that includes faculty mentoring.				
Outcomes	Math teachers who can immediately assume leadership roles in their school's mathematics programs.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	Yes. Based upon testimonials from graduates; independent reviewers analysis of the program; feedback from educational employers				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Early Assessment Project	STEM Inventory	Entry# 45
Org-Type	Higher-Education-based		
Lead	College of Education Cal Poly, San Luis Obispo	PoC	Carolina Cardenas Associate Director, Academic Outreach and Early
PoC-Phone	562) 951-4724	PoC-Email	ccardenas@calstate.edu
Address	401 Golden Shore, Long Beach CA 90802		
URL			
Service-Region	All California		
Type	Student Program|Other		
Subjects	Math		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	300,000	Demographics	
Content	he Early Assessment Program (EAP) is a collaborative effort among the State Board of Education (SBE), the California Department of Education (CDE) and the California State University (CSU). The program was established to provide opportunities for students to measure their readiness for college-level English and mathematics in their junior year of high school, and to facilitate opportunities for them to improve their skills during their senior year. Goal The goal of the EAP program is to have California high school graduates ente the CSU fully prepared to begin college-level study. The Challenge More than 60 percent of the nearly 40,000 first-time freshmen admitted to the CSU require remedial education in English, mathematics or both. These 25,000 freshmen all have taken the required college preparatory curriculum and earned at least a B grade point average in high school. The cost in time and money to these students and to the state is substantial. Moreover, these students are confused by seemingly having done the right things in high school only to find out after admission to the CSU that they need further preparation.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	All campuses of CSU, Educational Testing Services (ETS)		

Program-Title	CalState Teach	STEM Inventory	Entry# 46
Org-Type	Higher-Education-based		
Lead	College of Education Cal Poly, San Luis Obispo	PoC	Dr. Helene Mandell, Statewide Director
PoC-Phone	(805) 756-2079	PoC-Email	hmandell@calstate.edu
Address			
URL			
Service-Region	All California		
Type	Professional Development for Teachers		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	Graduate|Teacher Certification		
Other-Objectives			
Served-per-Year	500	Demographics	
Content	Preparation and certification of Multiple Subjects Credential teachers CST is a teacher preparation program that is classroom based from the first day the teacher begins the program. This results in a wealth of teaching experience that allows the teachers authentic instructional experience. The program works because the teachers are in a classroom setting with students.		
Outcomes	High quality, well-prepared classroom teachers graders K-8		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	The program provides on-line resources for instruction and support from CSU faculty throughout the state. The program works because the teachers are in a classroom setting with students. The CST program has been shown to be an effective teacher preparatio program for multiple subject teachers through the comprehensive implementation of the California Teacher Performance Assessment since Fall 2004. TPA data can be found at: www.ctc.ca.gov/tpa		
Promising-Practice	The College of Education at Cal Poly, SLO is currently developing a single subject intern teacher credentialing program based on the CalState Teach Multiple subject program model. The new intern program will incorporate immediate placement in a classroom setting and CSU faculty support along with access to on-line resources for instruction. The program will be available statewide. We will build on the high quality statewide CalState Teach program to address the critical need of content area teachers in middle and high school classes. This is a promising practice for decreasing the number of teachers who under-prepared or teaching out of field, particularly, in the sciences and math.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	CSU Fresno, CSU Fullerton, CSU Monterey Bay, CSU Los Angeles, California Commission on Teacher Credentialing		

Program-Title	Science and Mathematics Education Center	STEM Inventory	Entry# 47
Org-Type	Higher-Education-based		
Lead	CSU Fresno	PoC	Jaime Arvizu, Asst. Director
PoC-Phone	559_ 278-5174	PoC-Email	jaimea@csufresno.edu
Address	2555 E. San Ramon Mail Stop SB 73 Fresno, CA 93740		
URL			
Service-Region	Central Coast		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year	200 directly, 1500+ indirectly	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged
Content	Early Field Programs for undergraduates in science and math; special summer institutes/courses for both preservice and inservice; special programs for middle and high school students in science; funded project assistance and facilitation (i.e. Ca MSP's etc)		
Outcomes	Enhanced preservice program (more students, higher performance, higher retention as science and math teachers); special digital library portal development for Ca Science Teachers, professional development opportunities for math and science teachers		
Started		Funded-Through	Several Years
Length	Ongoing	Cost	
Primary-Funding	Foundation|Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	We use research-based pedagogical practices, co-instructor models, inquiry-based and problem solving approaches etc. Example: Hesthenes Modeling Science is used often. Evaluations have proved the program(s) to be highly effective at the 94 % level of performance		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	CA Dept of Education, National Science Foundation, NASA, US Dept of Energy, California Post Secondary Ed Commission,Fresno City College, Reedley College, West Hills Lemoore, Fresno Unified School District, Tulare City Schools, Tulare Unified School District, Dinuba School District, Clovis Unified School District, Madera Unified School District, Sierra Unified School District, Sanger Unified School District, Central Unified School District, Selma Unified School District, Visalia School District, and others		

Program-Title	Skills USA	STEM Inventory	Entry#	48

Org-Type	Higher-Education-based|Industry-based		
Lead	Skills USA	PoC	Courtne Coates
PoC-Phone	(703) 777-8810 ext. 617	PoC-Email	temp2@skillsusa.org
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	High School (9-12th grade)|Undergraduate|Graduate		
Other-Objectives	SkillsUSA is a national organization serving teachers and high school and college students who are preparing for careers in technical, skilled and service occupations, including health occupations. SkillsUSA was formerly known as VICA (the Vocational Industrial Clubs of America).		
Served-per-Year	Over 285,000	Demographics	
Content	SkillsUSA programs include local, state and national competitions in which students demonstrate occupational and leadership skills. At the annual national-level SkillsUSA Championships, over 5,000 students compete in 87 occupational and leadership skill areas. The Professional Development Program (PDP) teaches 84 workplace skill competencies in a series of hands-on self-paced lessons. The Tota Quality Curriculum (TQC) trains students through activity-based instruction in the quality improvement process used by industry. Student2Student Mentoring gives high school students a chance to mentor younger students in the area of career development. The Career Skills Education Program (CSEP) contains 49 online lessons teaching basic employment and life skills to college/postsecondary students. Student2Student Mentoring gives high school students a chance to mentor younger students in the area of career development. CareerSafe is a credentialed 10-hour online training program developed in cooperation with the Occupational Safety an Health Administration (OSHA) to provide students with basic knowledge of safety and a credential desired in the job market. Workplace Readiness Certification demonstrates student attainment of employability skills. It requires successful completion of a written exam prepared with NOCTI (National Occupational Competency Testing Institute) and NASDCTEc, the consortium of state directors of Career and Technical Education.		
Outcomes	SkillsUSA is an applied method of instruction for preparing America's high performance workers in public career and technical programs. It provides quality education experiences for students in leadership, teamwork, citizenship and character development. It builds and reinforces self-confidence, work attitudes and communications skills. It emphasizes total quality at work: high ethical standards, superior work skills, life-long education, and pride in the dignity of work. SkillsUSA also promotes understanding of the free enterprise system and involvement in community service.		
Started	1965	Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Foundation|Government|Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	SkillsUSA programs also help to establish industry standards for job skill training in the lab and classroom, and promote community service. SkillsUSA is recognized by the U.S. Department of Education and is cited as a "successful model of employer-driven youth development training program" by the U.S. Department of Labor.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	American Association of Community Colleges, Southern Nevada Vocational Technical Center, Seminole High School-Seminole, Texas, Southwest Wisconsin Technical College, Fennimore, Wis., Hickman County High School-Centerville, Tenn., Davies Career and Technical High School Warwick, R.I.,US Army, Air National Guard,WK Kellogg foundation, LOWES,BOSCH,Kansas City Convention and Visitor Center, State Farm Insurance,American Welding Society,Caterpillar,Sharpie,Rubbermaid,Snap-On,Stanley,USG,Autodesk,Autozone,Bes Buy,,John Deere, ACDelco, Air Products and Chemicals Inc., American Honda Motor Co. Inc.,ArvinMeritor Inc.,Associated ,Builders and Contractors Inc.,Automotive Youth Educational Systems (AYES), BlueCross BlueShield of Kansas City, Carhartt Inc.,Consumer Electronic Association,Detroit Diesel Corp.,Eaton Corp.,FedEx Freight*,General Motors Corp.,Graphic Arts Education and Research Foundation*,intelitek, Inc.,International Truck and Engine Corp.,John Wiley & Sons Inc.*.Kohler Co.,Lincoln Electric Co.*,Lowell Peters,Mack Trucks Inc.Mark One Electric Co. Inc., Miller Electric Mfg. Co. Inc., MSC Industrial Supply Co.* National Association of Parliamentarians, National Institute of Occupational Safety and Health, Northrup Grumman Ship Systems, Ratner Companies, Robert L Flint, Ryder System Inc., SPEC MIX Inc.,Timberland PRO,United Parcel Service		

Program-Title	The Motivating Undergraduates in Science and	STEM Inventory		Entry#	49
Org-Type	Higher-Education-based|Government-based				
Lead	NASA	PoC	NASA Glenn Research Center Education Programs Office		
PoC-Phone	(216) 433-6656	PoC-Email	intern@grc.nasa.gov		
Address					
URL					
Service-Region	All California|Nationwide				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other				
Level	Undergraduate				
Other-Objectives	STEM Fields				
Served-per-Year	100	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged		
Content	Each year, the MUST Project will support approximately 100 undergraduate students with a one-year competitive scholarship of up to one-half of tuition, not to exceed $10,000. Students who maintain the required minimum grade point average will be eligible for a paic internship at a NASA center or other research facility. Additionally, students will benefit year-round from tutoring, lecture series and mentoring from STEM faculty and peers. The scholarships and internships will be renewable for up to three years, provided the students continue to meet the academic requirements.				
Outcomes	The MUST Project is open to all students and is particularly focused on engaging students from underserved and underrepresented groups to enter STEM fields				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	MUST awards scholarships and internships to undergraduates pursuing degrees in science, technology, engineering and mathematics, more widely know as STEM fields.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Hispanic College Fund, the United Negro College Fund Special Programs and the Society for Hispanic Professional Engineers				

Program-Title	Partnerships for America's Youth		STEM Inventory	Entry#	50
Org-Type	Higher-Education-based				
Lead	National Academy Foundation	PoC	Jenny Pethkongkathon		
PoC-Phone	212-635-2400, ext. 254	PoC-Email	jenny@naf.org		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other				
Level	Undergraduate				
Other-Objectives					
Served-per-Year	10,000	Demographics			
Content	NAF sustains a nation-wide network of career-themed Academies that are organized as small learning communities. NAF students remain together throughout their high school years with a core group of specially trained teachers. This innovative small learning community or "schools within schools" concept was the vision of NAF's Founder, Sanford I. Weill, the corporate leader and philanthropist. Since its founding other leaders have joined Weill and supported NAF's mission, including Ken Chenault of American Express, Terry McGraw of McGraw Hill and Chuck Prince of Citigroup. NAF's small school vision emphasizes academic excellence while preparing students to pursue professional careers in the corporate sector. This vision has evolved into a premier reform model for public education throughout the country, and has helped inspire the contemporary small school/ small learning community movemen					
Outcomes	The Academy Internship Experience The paid internship is perhaps the most memorable and critical component in the NAF Academy experience for high school students. It is also one of the most rewarding, as it is the opportunity for students to apply, in a real-world setting, what they've learned in their Academy classes in the preceding years. To ensure that the students' paid internship lives up to expectations, all stakeholders must invest an appropriate amount of time and resources. A paid internship is not just a summer job. It i an extension of the Academy classroom instruction and curriculum, further developed and challenged in a business environment, supervised by business leaders in a real-world setting, resulting in a broad, relevant, enriching educational experience for the student. Done correctly, paid internships provide the context in which a student's classroom learning is applied. But the paid internship doesn't stop at just applying classroom skills in a work environment. It also exposes the student to a broad view of work experiences and situations, which could be expected if the student were to pursue a career in that field. And, the student is also exposed to a broad array of soft, workplace skills: critical thinking, teamwork, decorum, ethics, creativity, time management, ingenuity, honesty, problem-solving, comportment, and a solid understanding of the importance of excellent written and oral communications skills. This combination of benefits provides a valuable foundation for any career the student chooses to pursue in the future.					
Started		Funded-Through			
Length		Cost			
Primary-Funding	Foundation|Government|Industry|Academia	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	More than 90% of NAF students graduate from high school - compared to 50% in the urban areas where most NAF Academies are located. · 4 out of 5 NAF students go on to post-secondary education. · 52% of NAF students complete 4-year college degrees in 4 years - compared with 32% nationally. Of those, more than half are the first in their families to go to college. · 90% of students feel tha the Academies helped them to develop career plans. · 85% of 5- and 10-year alumni are working in a professional field.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Conrad N. Hilton College of Hotel and Restaurant Management, University of Houston, Johnson and Wales University, Niagara University,Paul Smith's College,Rosen School of Hospitality Management, University of Central Florida, Chief Information Officers (CIO) Council,Department of Commerce, Department of the Treasury - Office of Financial Education, Internal Revenue Service,Office of the Comptroller of the Currency,Small Business Administration,State Government , California CDE,Delaware,Florida,Maryland,New Jersey,Rhode Island, AAA, American Hotel & Lodging Association,American Institute of CPAs,American Society of Travel Agents,CalScan - San Francisco, CA,Certified Financial Planner Board of Standards,Diversity Pipeline,National Business Travel Association,National Council for Economic Education,National Endowment for Financial Education,New York State Society of CPAs,RITEC				

Program-Title	Space Days	STEM Inventory	Entry# 51
Org-Type	Non-Profit-based		
Lead	Traveling Space Museum, Inc.	PoC	"Space Days"
PoC-Phone	Ivor Dawson, President	PoC-Email	ivor@travelingspacemuseum.org
Address	4658 Don Lorenzo Drive Unit D Los Angeles,CA 90008		
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program		
Subjects	General Science|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Engineering|Robotics|Other		
Level	Elementary School (K-5th grade)		
Other-Objectives			
Served-per-Year	15,000	Demographics	
Content	Simply put, TSM brings the space museum to schools. Specializing in the use of full-scale simulators as teaching tools, TSM's many interactive attractions include the only full-motion flight simulator, space laboratory mockup and jet aircraft to visit schools regularly nationwide. Interactivity is key as students are invited to climb in and operate real and very functional hardware. Inside the simulators the students are completely immersed in the experience. The typical museum will not allow students to touch the exhibits much less climb inside them! Students are introduced to lab top computers, computerized microscopes, heart monitors, glove boxes, CB radios and other equipment. Operating the hardware teaches relevancy and that understanding makes the learning process fun! Students liken Space Day to an outing at a theme park. The lessons learned are memorable enough for students to go home and relate their new found knowledge of space to parents, friends and siblings. Space Day makes a school to be the coolest place to be! TSM also recruits youthful guest speakers to schools who have accomplished amazing feats in science and aviation -often sponsored by TSM. This included Katrina Mumaw, the youngest person to break the sound barrier and Justin Houchin-the youngest to fly a military jet for the National Test Pilot School in Mojave Ca. Kids love to meet amazing kids!		
Outcomes	TSM's "Space Day" program stimulates student inquiry in astronomy, rocketry, manned space flight, meteorology, 'space biology' and other aspects of aerospce education. Students are inspired to become astronauts, scientists, engineers and pilots. Several of TSM's teen proteges are currently taking flying lessons and winning science fair awards. TSM's first protege, a 15 year old named Katrina Mumaw recuited in 1998 graduated the Air Force Academy in 2006. TSM also began its "Students Teaching Students" program at a recent Space Day event at Millikan Middle School in Sherman Oaks, Ca. The school's Advance Placement students (those taking college level science courses)became 'inquiry coaches' demonstrating the exhibits to fellow students. The Science Chair and Administrator deemed STS a big success and a good 'ground school' for aspiring teachers!		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	A Space Day is unique as it is likely to be the only shared experience that includes the entire school population! And just how real are TSM simulators? Just ask Gordon Fullerton, Commander of the 3rd Space Shuttle flight. Fullerton had a ball piloting TSM's Orion CRV flight simulator! He was fascinated just looking at it. He had to cram his long legs into the narrow cockpit of the Orion and commented that "NASA never made any cockpit big either!" He quickly mastered the tricky action of the joystick. ISS Commander and Mission Specialist Dr. Leroy Chiao was the second former astronaut to fight TSM's Orion. He gave the experience "two thumbs up!"		
Promising-Practice	The Traveling Space Museum's "best practice" use of simulators was inspired by the US Army's use of simulators during World War II. The Army taught young recruits how to fly airplanes while still on terra firma. Former astronauts Gordon Fullerton and Dr. Leroy Chiao who have 'flown' TSM simulators recognized their effectiveness as teaching tools and the fascination that kids would have for them. LMCO's formal evaluation of an early Space Day reported that 10 of 12 teachers gave the full scale simulator presentations their highest rating: 10 out of 10 and an over all score of 9.7 "in providing educational concepts in an innovative, inspiring and exciting manner to students. 95% of the teachers said that TSM's "Space Day" 'exceeded their expectations.' One teacher notices that a usually energetic student was walking slowly during Space Day. The boy elegently reasoned that he if he walks slowly - the day would last longer! Another teacher was stunnned to receive her first unsolicited book report! The school librarian noticed a run on space science books days after Space Day. A fourth teacher was surprised when a student who usually has trouble writing a paragraph, has no problem writing about Space Day! This same teacher heard a Special Ed. student say "that with hard work, I can do anything!" Travelin Space Museum won the The National Space Society's "Best Education Program Award" (with the Orange County Space Society)for "Space Day in Compton Ca. 2001." In 2005, TSM Founder Ivor Dawson received the Shuttleworth Leadership Award for inspiring youth Presenter Mary Shuttleworth, Founder of The Shuttleworth Academy and Mary's Schoolhouse is the aunt of billionaire space tourist Mark Shuttleworth. One day, in a not-too-distant future, every school will have a language lab, a compuer lab and a TSM space lab module for kids to explore.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Los Aangeles Unified School District, AIAA, World Space Foundation, A-MAN International Science & Discovery Center, El Segundo USD Riverside USD, Manhattan Beach USD, Science & Technology Education Partnership (STEP)-Riverside,Raytheon's MathMovesU Program, San Fernando Valley 99s, SFV 99s' Aviation Explorers, Long Beach 99s, Experimental Aircraft Association, EAA Young Eagles program, FIRST Robotics, Team 980 ThunderBots,Lockheed-Martin Corporation		

Program-Title	Han-5 Mathematics	STEM Inventory	Entry# 52
Org-Type	Non-Profit-based		
Lead	Han-5 Mathematics	PoC	Tapp Hancock, Founder
PoC-Phone	661 664-7375	PoC-Email	tapp@han5math.com
Address	8000 Kroll Way, Condo. # 2 CA,93311		
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program|Lesson Plan		
Subjects	Math		
Level	Elementary School (K-5th grade)		
Other-Objectives	Some of the Standards the Han-5 workbooks support Numbers and Operations: 1.0 Students understand the relationship between numbers and quantities by seeing different number patterns. Han-5 System teaches students nine different sequential number patterns simply by adding tens to ones using one hand as a visual representation. These numbers added together create multiples for the number they are learning and then they can skip count by that number. By using their one hand, they can see and understand the conceptual meaning of what multiplication and division is. Then cognitive understanding is easily acquired when solving problems with manipulatives. Note: after practice students drop their hand and can recall the math facts mentally. 2.0 Students perform calculations and solve problems involving addition, multiplication, and division. By learning Han-5, students are empowered to add, multiply, divide, do parts to whole, recall equivalent fractions, recognize commutative and associative properties of addition and multiplication and create a solid foundation to solve any functional relationship between two quantities. Algebra and Functions: 1.0 Student model and interpret number relationships to create and solve problems. 2.0 Students are empowered to recognize, describe, and extend number problems. Han-5 empowers students to extend and recognize linear patterns by its rule….example: count by 4's or multiply by 4's. Statistics and Probability: 2.4 Students organize, represent, & compare data by charts (students use their one hand as a visual chart) Record numerical data in systematic ways, keeping track of what has been counted. Represent and compare data by number patterns. 2.0 Students sort objects, create, and describe patterns by objects and numbers. Describe, extend and explain ways to get th next element in simple repeating patterns with numbers. Students are empowered to do this by learning the Han-5 2.1 Solve problems involving simple number patterns. This is the Han-5 System!		
Served-per-Year	800	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged|Other
Content	Han-5 System : A system that teaches nine different hand patterns on one hand to be able to recall any math fact within minutes. Mos math programs teach recall with individual math facts that students need to memorize. Then they can only recall just those facts without conceptual understanding. Han-5 teaches linear patterns to recall any math fact. Then it shows how to solve all kinds of math problems while seeing how math facts are interconnected with functions and operations to understand mathematics as a whole science. I. How does it work? Han-5 System workbooks are systematically set up to teach the visual, kinesthetic, and auditory learner nine different number patterns, on one hand only, to be able to recall and master basic math facts. Workbooks also show how the system relates to a hundred chart, a number line and multiplication/division tables. It also teaches common relationships between multiplication/division math fact families, equivalent fractions and parts to whole. It is a multiple "all-in-one" tool to use in solving math problems, instead of using many seperate tools. II. Objectives: Students will be able to recall and master basic multiplication and division facts with 98% accuracy. To increase understanding of mathematics through number patterns and functions. To give students a feeling of self-confidence and pride while becoming mathematically empowered. To empower students to see patterns in all facets c curriculum and life.. III. Activities When students are taught to read, one teaching strategy is adding initial consonants to word families to create a greater vocabulary. Han-5 system is simply add tens to ones to create multiples. Once again they are learning a pattern, bu instead of using letters they are using numbers to build and extend their knowledge. Then they are able to speak by multiples, which is the first part to understanding multiplication and its relationship to many algorithms. Han-5 workbooks include number puppets, Boogie Boards of hand formations, stories and directions on how to add, multiply, divide, solve equivalent fractions, parts to whole, reduce fractions, etc.. with the Han-5 System. Activities are arranged in a systematic way for the visual, auditory and kinesthetic learne to be successful in learning all math facts. Other activities reinforce the cognitive understanding of how "math fact families" are relate to algebra, multiplication, division, reducing fractions, solving for equivalent fractions plus much more.		
Outcomes	Students will understand adding tens to ones to create a number pattern, place value, skip counting by multiples, recall math fact families and analyze how both repeating and growing patterns are generated. Students that couldn't learn math facts through rote memorization will benefit by being successful within minutes of learning a simple number pattern and then apply it to solve many other kinds of algorithms. Students will speak fluently by multiples and knowing their math facts. After learning the Han-5 System of Mathematics,students are empowered to solve any kind of math problem.		
Started		Funded-Through	2019
Length		Cost	
Primary-Funding	Academia|Other	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	It gives students a second chance to not miss the boat in being able to perform mathematics with self confidence and ease. We have a 95% success rate of students increasing proficiency from Far Below and Below levels to Proficient and Advance levels in just one month. Statistics can be found at this link: http://www.han5math.com/index.cfm?fuseaction=page&page_id=44 Here is another web site for reviews at this link: http://www.han5math.com/index.cfm?fuseaction=menu&menu_id=5012		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Kern County Migrant Division V, Woodbine Elementary School, Arvin School District, Delano School District, Home Schools		

Program-Title	Voyages Through Time: An Integrated High	STEM Inventory		Entry#	53
Org-Type	Non-Profit-based				
Lead	SETI Institute	PoC	Pamela Harman, Manager of Education and Outreach		
PoC-Phone	650-961-6633	PoC-Email	pharman@seti.org		
Address					
URL					
Service-Region	Nationwide				
Type	Professional Development for Teachers|Lesson Plan				
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science				
Level	High School (9-12th grade)|Teacher Certification|Professional Development				
Other-Objectives	There are 6 modules in Voyages through Time which comprise approximately 180 days of instructional materials: Cosmic Evolution--astronomy Planetary Evolution--planetary science Origin of Life--biology and microbiology Evolution of Life--biology and evolution of life Hominid Evolution--biology and physical anthropology Evolution of Technology--invention, engineering and evolution of technolog				
Served-per-Year	400+ Classrooms	Demographics			
Content	Voyages Through Time: A standards-based curriculum for a high school integrated science course centered on the unifying theme of evolution. The curriculum is presented in 6 technology-based modules: Cosmic Evolution, Planetary Evolution, Origin of Life, Evolution of Life, Hominid Evolution, and Evolution of Technology. Together, they comprise a year-long course; individually, the modules can be integrated into discipline based courses such as earth and space science, biology, physics, etc. Each summer, we train 20-25 high schoc teacher-leaders in ASSET: Astrobiology Summer Science Experience for Teachers at San Francisco State University. Teachers apply, are selected, and funded. They commit to providing professional development for other educators in their home communities. We have approx. 90 mentor teachers in more than 20 states. They present workshops, mentor other teachers, and implement the curriculum at their schools.				
Outcomes	Our goal is to provide excellent curriculum materials that bring cutting edge science to the classroom, support teaching the major concepts in science in an integrated course that includes the historical sweep of science (via timeline activities), computer/data base experiences that engage students with scientific data, and inquiry-based activities. The curriculum is based upon the "5 E's" model: Engage, Explore, Explain, Elaborate, and Evaluate, a proven model of instruction. Teacher materials and student data-base activities, media, and print materials are provided on CD-ROMs. Separately, collected science articles comprise the student readers for each module.				
Started		Funded-Through			
Length		Cost			
Primary-Funding	Foundation|Government|Academia	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	Our curriculum design is based upon the National Science Education Standards, and the 5-E's inquiry-based model for classroom science teaching developed by BSCS in Colorado Springs. Our teacher professional development (ASSET) institute also reflects best practices from NSES, and Designing Professional Development for Teachers of Science and Mathematics (Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003). Formative evaluation over 4 years has demonstrated that ASSET is an excellent workshop for high school science teachers. Voyages Through Time has been recognized by: Media and Methods: Portfolio Winner, 2004 Education Software Preview Guide: Notable Software California Learning Resources Network: (CLRN): Ed Tech Funds may be used to purchase the materials. Voyages Through Time is used in more than 400 school nationwide. During development, the materials were extensively tested and evaluated by WestEd, the regional research laboratory for science and mathematics education.				
Promising-Practice	This week-long institute for high school science teachers provides content enrichment, inquiry-based learning experiences, planning fo professional development, and planning for implementation of astrobiology into high school courses with Voyages Through Time materials and other NASA materials.				
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	NASA Astrobiology Institute, National Science Foundation, Educate America, SETI Institute, California Academy of Sciences, San Francisco CA, NASA Ames Research Center, San Francisco State University				

Program-Title	NASA Systems Engineering Award	STEM Inventory	Entry# 54
Org-Type	Government-based		
Lead	NASA Ames Research Center	PoC	Deborah Bazar, Project Manager
PoC-Phone	650.604.2084	PoC-Email	Deborah.E.Bazar@nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Engineering		
Level	Undergraduate		
Other-Objectives	aeronautics, systems engineering, mechanical engineering, engineering design process		
Served-per-Year	1000	Demographics	
Content	This award is an opportunity for university students to work with NASA engineers to conceive, design, fabricate and test a radio-controlled aircraft capable of taking off and landing while carrying a maximum load of cargo. Students will develop their aircraft and compete for the new NASA Systems Engineering Award as part of the Aero Design competition, made possible through a partnership between NASA's Aeronautics Research Mission Directorate and SAE International. Students competing for the award will receive e-ma feedback from NASA engineers who will review the students' work at two critical points during the design and development of their aircraft. Participation in the NASA Systems Engineering Award is optional. The purpose of this new award is to engage students in the systems engineering process. NASA wants to expose more of today's engineering students to systems engineering concepts and practice, which are integral to industry and research in today's world.		
Outcomes	With this competition, NASA continues its tradition of investing in the nation's education programs. The competition directly ties into the agency's major education goal of strengthening NASA and the nation's future workforce. Through this and the agency's other college and university programs, NASA will identify and develop the critical skills and capabilities needed to support its long-term aeronautics requirements.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Aeronautics Research Mission Directorate, NASA Headquarters		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Various university teams from around the country that participate in the SAE International Aero Design West and Aero Design East competitions		

Program-Title	NASA Aeronatics Museum Field Trip Programs	STEM Inventory	Entry# 55
Org-Type	Government-based		
Lead	NASA Ames Research Center	PoC	Christina O'Guinn
PoC-Phone	650-604-2891	PoC-Email	christina.m.oguinn@nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Physics|Space|Engineering|Other		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)		
Other-Objectives	Aeronautics (forces of flight, experimentation and investigation and engineering design, science and engineering careers)		
Served-per-Year		Demographics	
Content	NASA Ames Research Center is partnering with Hiller Aviation Museum to develop two aeronautics field trip programs that will be tested and implemented at Hiller Avaiation Museum and, once proven, will be freely disseminated to aviation museums and science centers nation-wide. The 'Skyways' aviation math field trip project, currently being piloted at Hiller with San Francisco Bay Area schools, uses a version of NASA's Smart Skies software complemented by a museum tour and a flight planning challenge developed by Hiller. During the Smart Skies portion of the field trip, students are challenged to manage aircraft approaching a major airport. Using math concepts, students adjust aircraft trajectories and speeds to safely and efficiently route aircraft to their destination. Smart Skies has been tested with thousands of students across the country and is a part of an educational outreach effort between NASA and the Federal Aviation Administration. The 'Four to Soar' field trip project engages students in hands-on inquiry museum activities and pre/post engineering design challenge classroom activities. At the museum, students will experiment with aeronautical forces, learning first-hand how the design of a propeller, the angle of a wing and the location of the landing gear affect thrust, lift and drag respectively In the classroom, students will apply these principles to design propellers, airplane wings and tails to meet certain engineering criteria.		
Outcomes	This program is designed to meet NASA's Informal Education Outcome 3.1: Provide informal education support resources that use NASA, themes and content to 1) enhance participant skills and proficiency in STEM disciplines. 2) inform participants about STEM career opportunites 3) communicate information about NASA’s mission activities.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding	This is a non-reimburseable SpaceAct agreement between NASA Ames and HIller Aviation Museum. A small amount of NASA resources is provided in-kind for NASA personnel time to modify, test and disseminate existing NASA aero educational resources for the museum environment. Hiller Aviation Museum raises it's own funding from corporate sponsors or foundations to cover it's costs of the partnership.		
How-Assessed			
Best-Practice-Why	This program is still in development, so it's still too early to say. However, the program is based on research-based instructional methods in STEM education, includes a strong evaluation component and strategically targets the overlap of formal and informal audiences (school field trips) where a greater impact is more likely than in only one setting.		
Promising-Practice	Yes. This program demonstrates a promising partnership model: matching NASA content, facilities and people with educational non-profits who have established audiences (for testing feasibility and for dissemination) and with corporate sponsors who provide funding NASA also serves as a nation-wide dissemination mechanism so that what might otherwise serve as only a local program can be used widely by aviation museums and science centers across the country. This can be especially beneficial to smaller museums who lack the resources to develop programs in-house.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Hiller Aviation Museum, Program_Government-Agencies: Federal Aviation Administration, National Air and Space Museum: Steven F. Udvar-Hazy Center, Eventually the program is planned to be disseminated to museums and science centers nation-wide		

Program-Title	Single Subject Science Teacher Preparation	STEM Inventory	Entry# 56
Org-Type	Higher-Education-based		
Lead	Cal Poly Pomona	PoC	Jodye Selco, Professor
PoC-Phone	(909) 869-4552	PoC-Email	jiselco@csupomona.edu
Address	3801 W. Temple Ave Pomona, CA 91768		
URL			
Service-Region	Southern California		
Type	Professional Development for Teachers|Lesson Plan		
Subjects	Biology|Math|Chemistry|Physics|Earth Science|Computer Science|Environmental Science		
Level	Pre-School|Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Teacher Certification		
Other-Objectives	all science and mathematics		
Served-per-Year		Demographics	
Content	We service all K-12 teachers, help prepare science teachers for secondary teaching, provide scholarships for undergraduate and graduate students intending to teach secondary science, provide in-service workshops to all teachers, provide FEDCO grants for all full-time K-12 teachers in Eastern LA County and all of San Bernardino County.		
Outcomes	Help prepare more, well qualified science teachers for K-12, support K-12 teachers in teaching experiential, quality, hands-on lessons help provide in-service content and pedagogy in science (and mathematics too) to both existing and pre-service teachers.		
Started	30 years ago	Funded-Through	2009
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding	California state education funds		
How-Assessed			
Best-Practice-Why	Yes. Each workshop is evaluated. We are presently working on longitudinal studies that will provide data to support the efficacy of our programs		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Local K-12 school districts, Other CSU campuses, IASTA (Inland Area Science Teachers Association), CSTA, NSTA,San Gabriel Valley Science Project, BioTrek, FEDCO Classroom Enrichment Grant Project		

Program-Title	Don Bosco Tech
Org-Type	Non-Profit-based|Other
Lead	Don Bosco Tech
PoC	Michael Smith
PoC-Phone	626-940-2011
PoC-Email	N/A
Address	1151 San Gabriel Blvd., Rosemead, CA 91770
URL	
Service-Region	Southern California
Type	Student Program
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other
Level	High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	Other
Content	Don Bosco Tech is a private, all-male high school combining college preparatory and technology education. Guided by the teachings of St. John Bosco and of the Catholic Church, Don Bosco Technical Institute offers a demanding college-prep high school curriculum supplemented by rigorous study of key technologies. The school develops young men of all faiths who are well prepared for college, well-positioned for career success in a technologically focused world, and motivated to lead lives of distinguished service. At Don Bosc students graduate in four years, but they earn much more than a high school diploma; they gain extensive training in one of several technological majors, training far beyond your typical high school shop class, training on state of the art equipment used in industry, training that allows students to leap frog past the competition should they pursue a related engineering degree at a major university. Outcomes-Generated: The academic and technological programs at Bosco Tech offer students excellent opportunities for career preparation and higher education, but the school provides opportunities to develop social awareness and concern as well. Don Bosco Tech was named for the founder of the Salesian Society, St. John Bosco, who was a 19th century Italian priest who established several technical schools to train boys as skilled craftsmen and leaders. Today, the school provides educational opportunities, which will empower students to become moral and productive citizens in the technologically oriented society of today and tomorrow.
Outcomes	
Started	
Funded-Through	
Length	Ongoing
Cost	
Primary-Funding	Academia|Donations
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	Many of our graduates discover that they learned much of what they needed for their engineering degree while in their high school program at Bosco Tech! Some students have the initiative to employ their skills early by working part time in a related field, allowing them to get valuable experience early, helping them to earn money to offset the costs of college expenses, and helping them learn to handle responsibility in order to grow into the leader they can be. Virtually every graduate has either a college acceptance or a job offer; many students receive both. Ninety-nine percent of the 2006 graduating class will attend college in the fall. Surveys show that seventy-three percent of Bosco's graduates are working in engineering, math, science or technology-related professions. The majority lives and works in Southern California applying their unique educational experience to their careers and communities.
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	College and Career Preparatory Magnet	STEM Inventory	Entry# 58
Org-Type	CTE		
Lead	Artesia High School	PoC	Mrs. Goodrich
PoC-Phone	(562) 926-5566 x21608	PoC-Email	N/A
Address	12108 E. Del Amo Blvd. Lakewood, CA 90715		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Biology|Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	College and career preparatory magnet school. Career academies in Business, Economics and Finance; Communication; Law and Human Services; Medical & Environmental Science; and Visual and Performing Arts. ROP classes offered through Southeast ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	CTE Classes
Org-Type	Non-Profit-based
Lead	Cerritos High School
PoC	Sam Bisogno, Counselor
PoC-Phone	(562) 926-5566 x21817
PoC-Email	N/A
Address	12500 E. 183rd St. Cerritos, CA 90703
URL	
Service-Region	Southern California
Type	Student Program
Subjects	General Science|Earth Science|Computer Science|Environmental Science|Technology
Level	High School (9-12th grade)|Professional Development
Other-Objectives	work experience, conferences and workshops for teachers
Served-per-Year	350
Demographics	Asian and/or Pacific Islander|Black or African American|Other
Content	CTE classes in applied technology, consumer & family science. ROP classes offered through Southeast ROP. Pathways are in development.
Outcomes	
Started	
Funded-Through	
Length	Ongoing
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	ROP, Perkins, general funds
How-Assessed	
Best-Practice-Why	Western Association of Schools and Colleges (WASC) school evaluation and WASC ROP evaluation
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	California Space Education Center	STEM Inventory	Entry# 61
Org-Type	Industry-based|Non-Profit-based|Collaborative Group		
Lead	California Space Education and Workforce Institute	PoC	Randall Echevarria
PoC-Phone	916.551.1543	PoC-Email	randall.echevarria@californiaspaceauthority.org
Address	1107 Ninth Street, Suite 1005 Sacramento, CA 95814		
URL	www.csewi.org/csec		
Service-Region	All California		
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics		
Level	Pre-School|Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate|Teacher Certification|Professional Development|Retirees/Career-changers		
Other-Objectives			
Served-per-Year		Demographics	
Content	The California Space Education Center is a web-based research, education and workforce collaboratory that aims to increase interest and show relevance of science, technology, engineering and math (STEM) disciplines, expose students to consecutive steps in the STEM career pipeline, and provide opportunities for students and potential entrepreneurs to become involved in a community of participatory learning focused around STEM careers.		
Outcomes			
Started	2006	Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Foundation|Government|Industry|Academia|Donations	Primary-$	200,000
Materials	Online Resources		
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	U.S. Department of Labor California Innovation Corridor California Space Authority WIRED		

Program-Title	Electrical Engineering Adjunct Faculty, STEM	STEM Inventory	Entry# 62
Org-Type	Higher-Education-based		
Lead	Cal Poly SLO	PoC	Dr. Ron Hughes, Co-Director
PoC-Phone	661 654-3471	PoC-Email	rhughes@csub.edu
Address	SoE, CSU, Bakersfield, 9001 Stockdale Highway, CA 93311-1099		
URL			
Service-Region	Central Coast		
Type	Professional Development for Teachers		
Subjects	General Science|Biology|Earth Science|Computer Science|Environmental Science		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year	200	Demographics	
Content	A four-week opportunity for middle and high school students and teachers to participate in university-level science research.		
Outcomes	University-level science research experience with university science researchers and 2) the opportunity to present and publish the research findings.		
Started		Funded-Through	2009
Length		Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Chevron Corporation		
How-Assessed			
Best-Practice-Why	Yes. This program allows students and teachers the opportunity to engage in authentic, university-level scientific research. These activities stimulate student interest in STEM fields, and sustain the interest in laboratory science research for teachers.		
Promising-Practice	Yes. Science teacher need the opportunity to engage in university-level scientific research. It is this level of research that often initiate their interest in science at the beginning of their careers, and led them to become science teachers.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	CSU Bakersfield-NASA 2007 Summer Institute	STEM Inventory	Entry# 63
Org-Type	Higher-Education-based		
Lead	CSU-NASA Science Education Collaborative	PoC	Dr. Ron Hughes, Faculty Coordinator, CSU-NASA Science Education
PoC-Phone	661 654-3471	PoC-Email	rhughes@csub.edu
Address			
URL			
Service-Region	Central Coast		
Type	Professional Development for Teachers		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year	100	Demographics	
Content	A three-day institute introducing, modeling, exploring, and developing science and math educational activities using NASA education resources.		
Outcomes	The development of 1) Learning Objects (Science and/or Math Lessons) for publication in Multimedia Education Resources for Learnin and Online Teaching (MERLOT); 2) a Children's Summer Science Program using NASA Education Resources; and 3) a cohort of Teachers (with ongoing academic year communication and support) with an interest in teaching math and science using NASA Education Resources.		
Started		Funded-Through	2009
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Chevron Corporation		
How-Assessed			
Best-Practice-Why	Yes. This program utilized contemporary, and innovative, methods of communication (MERLOT) and materials (Online NASA Educatior Resources) for enhancing science teaching and learning.		
Promising-Practice	Yes. In 2007, this program explored the use of Cabrillo. Cabrillo is an electronic means to keep the Institute participants connected and in communication throughout the academic year – well beyond the Summer Institute. Most institutes lack the resources and time to continue participant communication and support beyond the dates of the institute. Cabrillo offers the communication and support necessary to sustain participant engagement in the activities (specifically the development of MERLOT Learning Objects) initiated at th Summer Institute.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	NASA-JPL; CSU, Office of the Chancellor; CSU, Bakersfield; Santa Clarita Unified School District		

Program-Title	Burroughs High School Engineering/ Design	STEM Inventory		Entry#	64
Org-Type	CTE|Non-Profit-based				
Lead	Sierra Sands Unified School District	PoC	Laura Hickle- Coordinator		
PoC-Phone	(760) 384-2350	PoC-Email	lhickle@ssusd.org		
Address					
URL					
Service-Region	Central Coast				
Type	Professional Development for Teachers|Student Program				
Subjects	Engineering				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives	Engineering and design and renewable energy				
Served-per-Year	60+	Demographics	Women|Economically disadvantaged		
Content	Cerro Coso Community College, Sierra Sands Unified School District, Naval Air Warfare Center Weapons Division –China Lake, and othe local organizations in the Indian Wells Valley and its extended service area have formed a partnership to implement strong Career Technical Education (CTE) programs. This project addresses the urgent demand for highly qualified engineers, technicians, and other trained workers in technology rich environments, in the local, state and national work forces. Implementation of a pre-engineering program called Project Lead The Way (PLTW) will be offered at Burroughs High School starting in the fall of 2007 to create a strong system of support for students starting in 8th grade through college. PLTW will be expanded to include the full sequence of four courses though the course of this grant to provide a seamless transition into the community college or university system in engineering, engineering technology and renewable energy fields. In addition to training students to enter the workforce, high school and community college teachers will be trained to teach the PLTW classes in San Diego during a summer training program. Through an extensive outreach we will begin to identify students who need support through summer camps, exploration opportunities, career guidance, alternative project based and online learning, tutors and support. Special assistance will be focused on underrepresented student populations in the technical fields including, girls, socio-economically disadvantaged students, English language learners, students with disabilities and students from diverse backgrounds. The PLTW program will be articulated from the high school to the community college at the inception to ensure seamless non-duplication of coursework and college credit to secondary students. In addition, the foundation PLTW courses will be offered at the community college to provide equal access to all student populations tha may not have entrance through the secondary level. Business, industry and military representative will play pivotal roles in active engagement with students as mentors. They are committed to offering our graduates internships and employment during the course of their educational experiences as well as long term employment at the completion of their program. This program will provide the future workforce educated students strong in technical and academic skills. Engineering and Design classes are being offered at the high school level. Two courses, "Principles of Engineering" and "Introduction to Engineering Design" were implemented this year. These courses utilize the curriculum provided by Project Lead the Way, Inc. Digital Electronics will be implemented in 07-08. Robotics and a course for 7th and 8th grade studens will be offered during spring break. SSUSD and Cerro Coso have also held an Employers Summit to bring industry/ businesses in Engineering and renewable energy together to work on curriculum issues and development(9/14/07), and will be holding a California Community College Workforce and Economic Development Program, Advance Transportation Technology and Energy Center (ATTEI) Wind Technology Technical Training on December 14, 2007					
Outcomes	Outcomes-Generated: This project is designed to address the required objectives as listed below: 1. Align existing technical preparatio programs and career technical education curriculum between high schools and/or ROCPs and community colleges to create, expand o transform foundation career technical education areas that support emerging career opportunities with the addition of new technologies or new conditions, 2. Address the contemporary skill needs of business and industries with career technical programs provided in high schools and ROCP, 3. Provide accelerated education and training for those students who choose to be prepared for career and technical employment opportunities in less traditional and more expeditious methods while maintaining and or improving student competencies. 4. Support professional development inservice workshops for instructors, especially those focused on assisting instructors understand and apply CTE standards embedded in the CTE curriculum, thereby increasing course rigor. 5. Establish, expand or improve sequenced courses of study in high schools, academies, or ROCPs, culminating in capstone courses that are articulated directly into community college or apprenticeship programs in high wage, high growth sectors. 6. Create new articulated courses between high schools, ROCPs and community colleges and, where appropriate, four-year institutions. Ensure that curriculum meets California Department of Education (CDE) Career Technical Education standards and/or industry standards. 7. Explore new and more relevant career and technical practicum models that integrate coursework and student internship for secondary students, such as ROCP teacher-supervised community classroom and cooperative work experience education methodologies, or orientation to apprenticeship programs in high wage, high growth sectors. 8. Disseminate materials and curriculum to middle schools, high schools, ROCPs and community colleges.					
Started	Jul-07	Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry|Academia	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	SSUSD has always been committed to providing Career Technical Education for students and generally expands their program/ offerings yearly. Forty percent of students at Burroughs High School (1,700 enrollment) enroll in one of 10 ROP certificate programs (Auto, Business Graphics, Business and Retail Coop, Child Care, Construction, Criminal Justice, Health Careers, Restaurant, and TV/Video Production) during the 11th or 12th grade. Additional students complete other course sequences, including metal, wood, mechanical design, graphic design, business, and home economics. Sixty-eight percent of students completing a ROP capstone course are employed, in the military, or are enrolled in college six months after graduation. (Perkins/ ROP E1 and E2 data) Burroughs High School offers a strong academic program including math through Calculus, Chemistry, Physics, Anatomy and Physiology, Forensic Science and Advanced Placement courses in English, social studies, science and foreign language. The graduation rate at Burroughs is 97.8% (04/05 data). Kern County's graduation rate is 86% and state total is 85% (NCES definition). This year Cerro Coso College and SSUSD completed articulation agreements for 12 courses in a variety of sectors and jointly piloted a Virtual Class on-line program that enables students to take any of 16 college level courses through the on-line college while being supported at the high school by a Virtual Class teacher.					
Promising-Practice	While SSUSD and Cerro Coso both have strong academic and career programs, there has been limited emphasis on work preparation courses of study for technical fields. In response to the documented local, regional, state, and national need for engineers, scientists					

and technicians with adequate preparation in high school and training in college, Sierra Sands USD has geared up to offer the National Alliance for Pre-Engineering Program- “Project Lead the Way” (PLTW) High School Pre-Engineering Program at Burroughs High School starting in fall 2007. The focus is the implementation of PLTW, strengthen the Engineering and Design Industry Sector in Sierra Sands and Cerro Coso, and articulation of coursework and curriculum alignment. In addition to other activities, already existing CTE Advisory Committees will be strengthened and outreach activities (including guidance activities) will be implemented.

Sponsor

Sponsor-Org

Sponsor-Phone

Sponsor-Email

Other-Orgs Naval Air Warfare Center- Weapons Division- China Lake, Cerro Coso Community College, Searles Valley Minerals and other organizations (Florida Power and Light, Kern River Wind), Project Lead the Way

Program-Title	Maximizing Engineering Potential		STEM Inventory	Entry#	65
Org-Type	Higher-Education-based				
Lead	College of Engineering Program, Cal Poly Pomona	PoC	Milton Randle, Director		
PoC-Phone	909.869.2482	PoC-Email	mrandle@csupomona.edu		
Address	3801 West Temple Avenue, Pomona, CA 91786				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Computer Science|Engineering				
Level	Undergraduate				
Other-Objectives					
Served-per-Year	500	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged		
Content	Established in 1983, the Maximizing Engineering Potential MEP) program at California State Polytechnic University (Cal Poly Pomona) i a retention and academic enhancement program for students in Engineering and Computer Science. It is the largest program in the state of California and has a long and successful record of graduating students and placing them in industry. Its purpose is to increase the number and diversity of students graduating in technical disciplines. This purpose is accomplished by implementing four specific support strategies: Building a collaborative learning community among students with similar career goals. Constructing the bridges necessary to establish productive relationship between faculty, students and alumni. Expecting excellent performance. Effectively communicating support for the students' success in the university and from industry partners. The program has eleven specific service components designed to support student achievement, as well as assist in students' personal and professional development. These service components include: pre-enrollment services, a summer transition program, orientation courses, academic excellence workshops, academic advisement, student professional development activities, study centers, summer and part-time job information, scholarships and incentive grants, student organizations, and direct linkages to industry and company representatives.					
Outcomes	To increase the numbers of underrepresented students who enroll and graduate competitively in engineering and computer science.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation|Academia	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	Yes. The MEP at Cal Poly Pomona is the largest producer of under-represented minority engineers in California. Cal Poly Pomona ranks number five in the nation in the enrollment of Hispanic engineering students and number seven in Hispanic engineering graduates. Source: Engineering & Technology Enrollments and Degrees, Fall 2005-Engineering Workforce Commission of the American Associatio of Engineering Societies, Inc.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	CSU Fresno, Fullerton, Long Beach, Long Beach, Northridge, Los Angeles, Sacramento, San Diego, San Luis Obispo, San Francisco, San Jose, Chico UC Berkeley,Davis,Irvine,Los Angeles,Santa Barbara,Santa Cruz The National Association of Multicultural Engineering Program Advocates (NAMEPA) Society of Hispanic Professional Engineers (SHPE) National Society of Black Engineers (NSBE) Hispanic Engineering National Achievement Awards Conference (HENAAC) National Action Council for Minorities in Engineering, Inc. (NACME) Women in Engineering Programs and Advocates Network (WEPAN) American Indian Science and Engineering Society (AISES) Mathematics, Engineering Science Achievement (MESA) Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Mexican American Engineering Society (MAES) Southeastern Consortiun for Minorities in Engineering (SECME) The National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. GEM)				

Program-Title	San Diego Air & Space Museum		STEM Inventory	Entry#	66

Org-Type	Non-Profit-based		
Lead	San Diego Air & Space Museum	PoC	Shalene Baxter-Education Specialist
PoC-Phone	619.234.8291	PoC-Email	sbaxter@sdasm.org
Address	2001 Pan American Plaza, San Diego, CA 92101		
URL			
Service-Region	Southern Border		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)		
Other-Objectives	We demo rockets, and show off the newest information on space, let people look through telescopes, touch meteorites, drive a mode of the mars rover, and ask questions of industry experts.		
Served-per-Year	1000	Demographics	
Content	Museum Space Day: This is a free to the public event that is table and booth set up. The presenters have an opportunity to be the "face" of their company, meet and greet the public, and show off what they do. The Museum has hands on activities, and demonstrations on going through out the day.		
Outcomes	We hope to excite and attract local youth into the science, aerospace, and engineering feilds by showing them how "cool" it is!		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	The Museum has been the primary funder, with annual appeals sent out for additional money to advertise and buy supplies. We are looking for sponsorship each year.		
How-Assessed			
Best-Practice-Why			
Promising-Practice	This Museum Space Day is an excellent casual venue that allows families, and local youth to come down and learn about space. They are in a comfortable setting that allows them to explore freely areas of interest to them.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Rockwell Collins and Lockheed Martin, JPL, NASA, Mars Society, San Diego Air & Space Windtunnel, Ms.Cadace Kohl for UCSD, Goldstone Deep Space Network, UCSD EarthKam, Planetary Society, San Diego Astronomy Association, International Dark Sky Association, and Diego Area Rocketry Team We have many youth groups and families that return each year to help us celebrate Space Day. For example Girl Scout troops, YMCA campers, Boy Scouts, and invited local families and school groups.		

Program-Title	Department of Energy Academies Creating	STEM Inventory		Entry#	67
Org-Type	Government-based				
Lead	Department of Energy	PoC	N/A		
PoC-Phone	202-586-9742	PoC-Email	sc.helpwithapplication@science.doe.gov		
Address					
URL					
Service-Region	Nationwide				
Type	Professional Development for Teachers				
Subjects	General Science|Biology|Chemistry|Physics				
Level	Middle School (5-8th grade)|High School (9-12th grade)|Professional Development				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Department of Energy Academies Creating Teacher Scientists (DOE ACTS) is a three-year program that uses the unmatched wealth of mentoring talent at the DOE National Laboratories to guide and enrich the teachers' understanding of the scientific and technological world. Through this program, teachers will establish long-term relationships with their mentor scientists and teaching colleagues who will continue to support the educational efforts of the teachers when they have returned to their classrooms. There ar two types of DOE ACTS programs from which teachers may choose: Teachers as Investigators - designed for teachers looking for ways to relate research frontiers to the classroom by updating their skills and knowledge of research methods, collaborating with research scientists, using scientific instruments, and applying hands-on laboratory technology. Programs are typically 4 weeks long with a primary focus on middle school teachers (high school teachers are also welcome). The programs may also include time at the laboratory during the academic year. Teachers as Research Associates - designed for teachers seeking an independent research experience with a mentor scientist at a DOE National Laboratory. These programs are typically 8 weeks long with a primary focus on high school teachers (middle school teachers are also welcome). The programs may also include time at the laboratory during the academic year.				
Outcomes	The DOE ACTS program was designed to create a cadre of outstanding science and math teachers with the proper content knowledge and scientific research experience to serve as leaders and agents of positive change in their local and regional teaching communities.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Pre-Service Teacher (PST)	STEM Inventory	Entry# 68
Org-Type	Government-based		
Lead	Department of energy	PoC	N/A
PoC-Phone	202-586-9742	PoC-Email	sc.helpwithapplication@science.doe.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering		
Level	Undergraduate		
Other-Objectives			
Served-per-Year	Demographics		
Content	This program places students in paid internships in Science, Math, and Technology at any of several different locations. The participants in the program have decided on a teaching career in one of these disciplines. Students work with scientists or engineers or projects related to the laboratories' research programs. They also have the mentorship of a Master Teacher who is currently working i K-12 education as a teacher and is familiar with the research environment of a specific National Laboratory. The different laboratories each offer different research opportunities. The program only runs in the summer term. Summer programs at the various laboratories run from late May to mid-August. The exact start date depends on the laboratory and will be given to participants who have been accepted at that specific laboratory. Students are required to participate for the full term of the program. Link to the different laboratories: http://www.scied.science.doe.gov/scied/PST/choose.htm		
Outcomes	The program is intended to provide continual encourage to those who want to become teachers in the areas of science, math, and technology.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Science Undergraduate Laboratory Internships	STEM Inventory	Entry# 69
Org-Type	Government-based		
Lead	Department of Energy	PoC	N/A
PoC-Phone	202-586-9742	PoC-Email	sc.helpwithapplication@science.doe.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Engineering		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	This program places students in paid internships in Science and Engineering at any of several Department of Energy facilities. Many of the participants in the program have decided on a career in science and engineering because of the nature of the experience. Students work with scientists or engineers on projects related to the laboratories' research programs. The different laboratories each offer different research opportunities. The summer programs at the various laboratories run from late May to mid-August, fall programs run from August through December and spring programs from January through May. The exact start dates depend on the laboratory and will be given to participants who have been accepted at that specific laboratory. Students are required to participate for the full term of the program. List of laboratories: http://www.scied.science.doe.gov/scied/erulf/choose.html		
Outcomes	The purpose of the program is to encourage students to pursue a career in science and engineering.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Faculty and Student Teams (FaST)		STEM Inventory	Entry#	70
Org-Type	Non-Profit-based|Government-based				
Lead	Department of Energy & the National Science Foundation	PoC	N/A		
PoC-Phone	202-586-9742	PoC-Email	sc.helpwithapplication@science.doe.gov		
Address					
URL					
Service-Region	Nationwide				
Type	Professional Development for Teachers|Student Program				
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Computer Science|Engineering				
Level	Undergraduate				
Other-Objectives					
Served-per-Year		Demographics	Women|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged		
Content	The Faculty and Student Teams (FaST) Program encourages faculty from colleges and universities with limited research facilities and those institutions serving populations, women, and minorities underrepresented in the fields of science, engineering, and technology to apply for the program. The FaST program will support a team comprised of one faculty member and 2 – 3 undergraduate students. The program provides hands-on research opportunities in DOE national laboratories during the summer. The faculty member identifies a mutually beneficial research area amenable to collaboration by the faculty member and the laboratory scientist. Potential areas of collaboration are based upon the Project Descriptions described at the specific DOE Office of Science laboratory. Faculty and student team members recruited by the faculty member should apply online. If the application is accepted, your institution may be responsible for requesting supplemental funding from NSF to support the team's participation. Link to the project descriptions: http://www.scied.science.doe.gov/scied/fast/project_desc.html				
Outcomes	The program aims to generate the following outcomes: An opportunity to contribute to and be on the ground floor of new ideas and exciting projects leading to publications for faculty and graduate school opportunities for students. A highly interactive and stimulating immersion experience in the research environment. Sustainable professional relationships between faculty and Laboratory investigators. A supportive approach that reinforces learning through research participation. Workshops and training to minimize the "culture shock" of entering and working in a National Laboratory setting. Opportunities to reform undergraduate education. Internet-based technologies to support distance education and research collaboration. An opportunity to add to the diversity of the science and engineering workforce at the DOE National Laboratories. An opportunity for DOE laboratory investigators to have a dedicated team supported and working to advance their research and development objectives.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation|Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	The National Science Bowl		STEM Inventory	Entry#	71
Org-Type	Government-based				
Lead	Department of Energy	PoC	Jeff Sherwood		
PoC-Phone	202-586-4826	PoC-Email	Jeff.Sherwood@hq.doe.gov		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Biology|Chemistry|Physics				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives	The primary subject matters of the event include general math and science as well as hydrogen fuel cell technology!				
Served-per-Year		Demographics			
Content	The U.S. Department of Energy (DOE) National Science Bowl is a nationwide academic competition that tests students' knowledge in a areas of science. High school and middle school students are quizzed in a fast paced question-and-answer format similar to Jeopardy. Competing teams from diverse backgrounds are comprised of four students, one alternate, and a teacher who serves as an advisor an coach. A featured event at the National Finals, the Hydrogen Fuel Cell Model Car Challenge invites students to design, build, and race model cars, competing for cash prizes for their school's science department. This competition tests the creative engineering skills of many of the brightest math and science students in the nation as they gain hands-on experience in the automotive design process and with hydrogen fuel cell technology.					
Outcomes	DOE launched its National Science Bowl's high school competition in 1991 to encourage high school students to excel in science and math and to pursue careers in those fields. The National Science Bowl's high school competition now involves more than 12,000 students. DOE introduced the National Science Bowl's competition for middle school students in 2002. It now involves more than 5,00 students.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	ACHIEVING THE DREAM:Community Colleges	STEM Inventory		Entry#	72

Org-Type	Non-Profit-based		
Lead	ACHIEVING THE DREAM:Community Colleges Count	PoC	Radha Roy Biswas
PoC-Phone	n/A	PoC-Email	rrbiswas@jff.org
Address			
URL	www.achievingthedream.org		
Service-Region	Nationwide		
Type	Student Program		
Subjects	Other		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	Economically disadvantaged

Content

At over 80 community colleges in 15 states, this national initiative seeks to help more community college students succeed. The initiative is particularly concerned about student groups that have faced the most significant barriers to success, including low-income students and students of color. As a partner in ACHIEVING THE DREAM, JFF leads the policy effort in nine states and co-leads national policy activities with the American Association of Community Colleges. Achieving the Dream is funded by Lumina Foundation for Education and 18 other partner foundations.

Outcomes

Expected Outcomes of Achieving the Dream To increase student success at community colleges, Achieving the Dream is working achieve the following outcomes related to institutional change, policy, public engagement, and knowledge development. Institutional Change * Achieving the Dream colleges will exemplify a deep commitment to pursuing student success. * They will become “learning organizations" and will use data to identify problems, set goals, establish institutional priorities, allocate resources and measure progress. * They will make lasting changes in policies, structures, programs and services to improve student outcomes. Public Policy * In demonstration states, leadership structures will be in place to provide long-term advocacy on issues affecting student success. * These states will make success of community college students an explicit public policy goal. They will identify and implement policy changes in data and accountability, financing, system alignment, and support for institutional improvement that promote improved student outcomes. * Achieving the Dream states will move toward a policy culture that uses rich student data systems in decision making and places high priority on improving student outcomes. * Community college leaders and policy makers nationally, will have new knowledge about policies to improve student success. Public Engagement * Critical audiences, who can advance the initiative's agenda, will recognize community colleges' potential and society's need to raise postsecondary attainment levels. * Employers, community leaders, students and others will exert pressure on institutions and policy-makers to improve student outcomes, and they will actively support colleges' efforts. * More colleges, beyond the demonstration sites, will adopt practices to improve student success. New Knowledge * Community colleges, policy-makers and higher education researchers will have meaningful data to benchmark colleges’ performance based on student outcomes. * Community college administrators will recognize the value of data-driven decision making and will have tools to help them analyze student outcomes at their institutions. * Colleges, policy-makers and funders will have access to better research on institutional policies and practices that improve student outcomes. * Colleges, policy-makers and funders will understand Achieving the Dream's institutional change process and its applicability to other colleges.

Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			

Promising-Practice

Achieving the Dream aims to bring about change within community colleges and in state and federal policy. The initiative also seeks to augment knowledge about strategies that increase student success and to expand public support for raising postsecondary attainment levels. At its core, the initiative seeks to help more students reach their individual goals, which may include earning a community college certificate or degree, attaining a bachelor's degree, and/or obtaining a better job. Achieving the Dream colleges will maintain a high degree of access for historically underrepresented groups while working to increase the percentage of students who accomplish the following: * successfully complete the courses they take; * advance from remedial to credit-bearing courses; * enroll in and successfully complete gatekeeper courses; * enroll from one semester to the next; * earn degrees and/or certificates. After four to eight years, a substantially higher percentage of students at Achieving the Dream colleges—especially low-income students and students of color—will experience success, as measured by the list above, with no reduction in enrollment for these populations. Longer term, Achieving the Dream aims to influence national policy and practice in order to increase student success at colleges that do not have the opportunity to participate directly in the initiative. In support of its ultimate goal, increased student success, the initiative is working to achieve certain outcomes in four areas: institutional change, policy change, public engagement, and knowledge development.

Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	HELPING LOW-SKILLED ADULTS ENTER AND	STEM Inventory		Entry#	73
Org-Type	Non-Profit-based				
Lead	Breaking Through	PoC	Monique Sheen		
PoC-Phone	N/A	PoC-Email	msheen@jff.org		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Other				
Level	Retirees/Career-changers				
Other-Objectives					
Served-per-Year		Demographics			
Content	At 26 community colleges in 17 states, this multi-year collaboration of JFF and the National Council for Workforce Education promotes and enhances the efforts of community colleges to help low-literacy adults prepare for and succeed in occupational and technical degree programs. BREAKING THROUGH is funded by the Charles Stewart Mott, North Carolina GlaxoSmithKline, and Ford foundations.				
Outcomes	The goal of Breaking Through is to strengthen postsecondary outcomes for low-income adults by focusing on strategies that create more effective pathways into and through pre-college and degree-level programs. Breaking Through has four main components and four high leverage strategies to increase access to and success in college for low-literacy adults.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation|Industry|Academia	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	PROMOTING WORK-BASED LEARNING FOR	STEM Inventory		Entry#	74
Org-Type	Non-Profit-based				
Lead	JOBS TO CAREERS	PoC	N/A		
PoC-Phone	N/A	PoC-Email	N/A		
Address					
URL	www.jobs2careers.org				
Service-Region	Nationwide				
Type	Other				
Subjects	General Science|Biology|Other				
Level	Retirees/Career-changers				
Other-Objectives					
Served-per-Year		Demographics	Other		
Content	Jobs to Careers: Promoting Work-Based Learning for Quality Care is an initiative that seeks to advance and reward the skill and career development of low-wage incumbent workers providing care and services on the front lines of our health and health care systems. The project is a $15.8 million national initiative of the Robert Wood Johnson Foundation, in collaboration with The Hitachi Foundation and the Department of Labor. It supports partnerships of employers, educational institutions, and other organizations to expand and redesign systems to create lasting improvements in the way that institutions train and advance their frontline workers and test new models of education and training that incorporate work-based learning. Jobs for the Future (JFF), in Boston, serves as the National Program Office for Jobs to Careers: Promoting Work-Based Learning for Quality Care.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Robert Wood Johnson Foundation, in collaboration with the Hitachi Foundation and the U.S. Department of Labor.				

Program-Title	Jobs For the Future
Org-Type	Non-Profit-based
Lead	Jobs for the future
PoC	N/A
PoC-Phone	617.728.4446
PoC-Email	info@jff.org
Address	
URL	www.jff.org
Service-Region	Nationwide
Type	Professional Development for Teachers|Student Program|Other
Subjects	Other
Level	Undergraduate|Retirees/Career-changers
Other-Objectives	
Served-per-Year	
Demographics	
Content	Jobs for the Future believes that all young people should have a quality high school and postsecondary education, and that all adults should have the skills needed to hold jobs that pay enough to support a family. As a nonprofit research, consulting, and advocacy organization, JFF works to strengthen our society by creating educational and economic opportunity for those who need it most. Our Vision * All young people make a successful transition to adulthood. By age 26, they obtain a strong high school education and an advanced educational credential. * All adults have the education and skills they need to get and keep a job—and to advance in a family supporting career. * The nation has a workforce that meets the demands of a changing global economy. Our Work Through partnerships with states and communities, national and local foundations, and other organizations, JFF accelerates opportunities for people to advance in education and careers through: * Research, analysis, and policy development: We identify and address the challenges that prevent many people from succeeding in a family-sustaining career. * Practical, on-the-ground projects: We develop effective models for helping youth and adults acquire the skills that employers require. * Advocacy, communications, and peer learning: We influence the policies and practices driving our nation's educational and workforce development systems. Our Areas of Activity * Creating Successful Transitions for Youth * Building Economic Opportunity for Adults
Outcomes	
Started	
Funded-Through	
Length	
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	One-on-One Program	STEM Inventory	Entry# 76
Org-Type	Non-Profit-based		
Lead	MentorNet	PoC	Director of Programs, MentorNet
PoC-Phone	408.296.4405	PoC-Email	program.team@mentornet.net
Address	1275 S. Winchester Blvd., Suite E, San Jose, CA 95128-3910		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Other		
Level	Undergraduate		
Other-Objectives			
Served-per-Year	6000	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged

Content

One-on-One E-Mentoring Program HOW PROTÉGÉS AND MENTORS SIGN UP: Prospective mentors or protégés learn about the opportunity to participate through communications from their organization's MentorNet representative. Signing up to get or voluntee as an e-mentor is an easy process – individuals start by opening a web browser to MentorNet's web site at www.MentorNet.net. They then join or sign in to the MentorNet Community. Next, they follow the One-on-One Mentoring Program links to create a protégé or mentor profile. THE ONE-ON-ONE PROFILE: Prospective protégés and mentors each complete a 34-variable online profile (doing so takes about 10 minutes), providing information about their backgrounds and interests, indicating topics of greatest interest, and expressing their preferences on their profiles for the characteristics of the mentor or protégé with whom they wish to be matched (school attended, educational level, gender and more). MATCHING: Once a protégé creates a profile, s/he is presented with the anonymous profiles of up to 5 potential mentors. The protégé then can choose one of these mentors or ask MentorNet to make the match automatically. If after two weeks, the protégé has not chosen or asked MentorNet to choose, we will attempt to automatically match the protégé with a mentor. TRAINING AND COACHING: As a structured e-mentoring program, we provide program support through training and coaching to mentors and protégés to help them make the most of their experience. We have posted a training guide on our web site and have developed web-based interactive training tutorials that take protégés and mentors through some common mentoring situations. In addition, after they are matched, protégés and mentors will each receive coaching in the form of weekly or biweekly (depending on their educational level) email discussion suggestions for the entire eight months of their official MentorNet mentorship. These messages offer suggestions activities and topics of discussion which help in initiating and sustaining a successful e-mentoring relationship. They also provide handy reminders to the mentor and protégé to keep in touch with one another, and direct connections to MentorNet's program staff for questions, problem resolution, and individualized coaching as needed. The program support MentorNet offers to One-on-One E-Mentoring participants provides the guidance and assistance necessary to make mentoring relationships successful for both mentors and protégés. Participants report spending about 15-20 minutes per week in communications with one another. 96% of mentors and 94% of protégés indicate they would recommend the program to a colleague or friend. ABOUT USE OF EMAIL FOR MENTORING RELATIONSHIPS: There is no doubt that email offers a different kind of mentoring medium than face-to-face meetings. There are a number of aspects of email communication which makes it useful in building mentoring relationships: it's easy, convenient, affordable, asynchronous, fitting in with tightly-packed worked schedules, and transcends distance and time zones. In addition, however, there are some less obvious but important aspects of email communication which can particularly support the development of strong mentoring relationships: status differences are lessened, easing communication between mentors and protégés, and reducing bias based on appearances; protégés learn valuable online collaborative workplace skills; writing provides opportunities for reflective learning and a written record of the communications for repeated reference. Email mentoring taps into the Internet as a social technology that connects and affiliates people, creating purposeful networking and community. CLOSURE AND EVALUATION: MentorNet's One-on-One e-mentoring relationships are designed to last for eight months at a time, a period of time which evaluation findings have determined is long enough to build a working relationship, anc an appropriate time for the relationship to be reviewed and be renewed, be redefined, or come to an end. At the outset of each mentoring relationship, the protégé and mentor are encouraged to establish explicit objectives for the mentorship. At a couple of points during the relationship, MentorNet staff specifically ask participants if the relationship is underway and going smoothly from their perspectives. As the relationship nears its end, both protégé and mentors are asked to complete online surveys to help us learn how the program may be improved and to assess what learning or other outcomes have resulted. MentorNet has long relied on regula feedback through communications with individual mentors and protégés, end of relationship survey responses, and occasional additional evaluation studies for continuous program improvement. All evaluation reports are published on our web site. 77% of protégés indicate they anticipate continuing to communicate informally with their mentors as their relationship comes to an end, as their relationships with their mentors build their professional networks.

Outcomes

- To further the progress of women and others underrepresented in scientific and technical fields through the use of a dynamic, technology-supported mentoring network. - To advance individuals and society, and enhance engineering and related sciences, by promoting a diversified, expanded and talented global workforce.

Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			

Best-Practice-Why

- Mentoring is the single strategy which has been identified as successful in increasing the retention of women and people of color wh are under-represented in engineering and science fields. - 81% of the protégés participating in MentorNet's One-on-One mentoring program have been women and/or people of color underrepresented in science and engineering fields. Yes. MentorNet has been recognized with national awards, cited frequently in literature, and have a growing number of partners and adherents. 2001 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring 2004 Cisco Growing With Technology Award 2007 Silicon Valley Business Journal Impact Award Cited in numerous papers, proposals, reports, etc.

Promising-Practice			
Sponsor		Sponsor-Org	

Program-Title One-on-One Program

STEM Inventory

Entry# 76

Sponsor-Phone

Sponsor-Email

Other-Orgs

Program-Title	Sally Ride Science Camps
Org-Type	Industry-based|Collaborative Group
Lead	Sally Ride Science
PoC	N/A
PoC-Phone	1-800-548-6612
PoC-Email	N/A
Address	9191 Towne Centre Drive Suite L101 San Diego, CA 92122
URL	www.sallyridescience.com
Service-Region	Nationwide
Type	Student Program
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	Women
Content	Sally Ride Science Camps encourage girls' interests in science by giving them hands-on science learning and activities in an environmen that is designed to be supportive, enriching, and – most importantly – fun! Sally Ride Science has partnered with Education Unlimited to provide innovative science programs for girls entering grades 4 through 9. These unique, overnight camps provide girls an opportunity to explore science, technology, and engineering while having fun on a college campus. Enrichment Activities in the afternoons and evenings give girls an opportunity for informal science learning, as well as leadership and problem-solving training, through workshops, experiments, guest speakers, and recreational activities. Students will also attend a mid-program excursion to a local science venue. 8th and 9th Grade Girls will participate in an advanced 10-day program that will allow them extra time to explore our unique majors and activities. Sally Ride Camps change locations from year to year so make sure to check us out online to see what is new!
Outcomes	A Sally Ride Science Camp graduate will have: Completed the exclusive Sally Ride Science curriculum Participated in lots of hands-on science learning and activities Gained confidence and experience in a supportive girls-only environment Learned from experienced anc inspiring instructors Made lots of new friends Experienced a taste of college life
Started	
Funded-Through	
Length	
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	TOY Challenge
Org-Type	Industry-based|Collaborative Group
Lead	Sally Ride Science
PoC	N/A
PoC-Phone	N/A
PoC-Email	N/A
Address	9191 Towne Centre Dr., San Diego, CA 92122
URL	sallyridescience.com
Service-Region	Nationwide
Type	Professional Development for Teachers|Student Program
Subjects	General Science|Biology|Chemistry|Physics|Engineering
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)
Other-Objectives	
Served-per-Year	
Demographics	
Content	TOYchallenge is a chance for teams of imaginative kids to create a new toy or game. Toys are a great way to learn about science, engineering, and the design process! As girls and boys create a toy or game, they experience engineering as a fun, creative, collaborative process, relevant to everyday life. Each TOYchallenge team needs an adult coach to support the team as they work together to brainstorm, research, design, and test their creation. The coach is not there to tell the kids what to do, but to support and guide a team from brainstorming to building and exhibiting a working prototype (and we give the coaches lots of advice and support, too). The competition results in a lot of "self-learning" - students learn things that they need to know on their own, skills that they don't always learn in school. When they form their own plans and come to their own conclusions, students not only retain what they've learned better, but they also feel more empowered, motivated and fulfilled. They learn skills they will use for the rest of their lives, whatever they choose to do as a career: imagination and collaboration skills are as important as engineering ideas. This is a competition where everybody wins! We honestly believe that TOYchallenge can help change kids' lives and encourage you to join the fun and participate!
Outcomes	Generated: Through building toys we hope our program generates interest in science, engineering, and the design process. While making these toys kids will also learn a sense of teamwork, build self-confidence, and do a great amount of self-learning.
Started	
Funded-Through	
Length	Ongoing
Cost	
Primary-Funding	Industry
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	Northrup Grumman Southwest Airlines Hasbro

Program-Title	Sally Ride Science Festivals		STEM Inventory	Entry#	79
Org-Type	Industry-based|Collaborative Group				
Lead	Sally Ride Science	PoC	N/A		
PoC-Phone	1-800-561-5161	PoC-Email	N/A		
Address					
URL	sallyridescience.com				
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics	Women		
Content	Sally Ride Science Festivals bring together hundreds of girls for a festive day of science and socializing. Parents and teachers are welcome too! The festival goes nationwide so watch out for the next time we are near your community! Each festival features: an inspiring talk; workshops for girls, given by local veterinarians, astronomers, microbiologists and engineers; workshops for parents and teachers on ways to support girls' interests in science and math; a street fair with hands-on activities, booths, food and music.				
Outcomes	The program aims to introduce girls into the field of science and maybe inspire them to follow a career in science.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Space, Technology and Robotic Systems	STEM Inventory	Entry# 80
Org-Type	CTE		
Lead	Lompoc High School	PoC	John Galisky
PoC-Phone	(805) 742-3533	PoC-Email	galiskyj@lompoc.k12.ca.us
Address	515 W. College Ave. Lompoc, CA 93436		
URL	www.sbceo.org/~lompochs/STaRProgram		
Service-Region	Central Coast		
Type	Student Program		
Subjects	Biology|Math|Chemistry|Physics|Earth Science|Space|Engineering|Robotics		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The focus of the Space, Technology and Robotic Systems Academyis pre-engineering, applied specifically to the aerospace industry. Students pursue an integrated core curriculum of English, Math, and Science plus a technology elective. In 10th grade, students learn the process for making a new product and are introduced to computer-aided machining in Engineering 1: Design. In the 11th grade tech class, Engineering 2: Electronics and Robotics, students learn the function of electronic components then design and build their own robots. Finally, in the last year, students solve real problems the ROP Drafting/Manufacturing course.		
Outcomes			
Started	2000-01	Funded-Through	ongoing
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	$81,000
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Are We Alone? radio show	STEM Inventory	Entry# 81
Org-Type	Non-Profit-based		
Lead	SETI Institute	PoC	Barbara Vance
PoC-Phone	650-960-4531	PoC-Email	bvance@seti.org
Address	Are We Alone SETI Institute 515 N. Whisman Road Mountain View, CA 94043		
URL	radio.seti.org		
Service-Region	Nationwide		
Type	Other		
Subjects	Biology|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics		
Level	High School (9-12th grade)|Undergraduate|Graduate		
Other-Objectives	Investigations into both science and skepticism		
Served-per-Year	tens of thousands	Demographics	
Content	Once a week program on science, thematically driven. Show elements include interviews, personalities, skits, and on-location recordings. Science is broad-based, with an emphasis on astrobiology. Once a month, "Skeptical Sunday" takes a look at some pseudoscience topic, and examines why is isn't science.		
Outcomes	Interest in science, and conveyance of how science works.		
Started	2001	Funded-Through	2009
Length	Ongoing	Cost	
Primary-Funding	Government|Donations	Primary-$	Approximately $50,000 annually
Materials	All shows are available for free download.		
Other-Funding	Private donations.		
How-Assessed	Feedback from listeners.		
Best-Practice-Why	There is very little popular science programming on radio (exception is NPR's "Science Friday".) We attempt to make this subject both interesting and fun, and are not news-driven, which means greater depth can be reached for any given topic.		
Promising-Practice			
Sponsor		Sponsor-Org	SETI Insitute
Sponsor-Phone	650-961-6633	Sponsor-Email	arewealone@seti.org
Other-Orgs	NASA		

Program-Title	Robotics Programs		STEM Inventory	Entry#	82
Org-Type	Industry-based|Non-Profit-based|Collaborative Group				
Lead	San Diego Science Alliance	PoC	Dave Massey, SDSA Robotics Program Manager		
PoC-Phone	619.400.9777	PoC-Email	dmassey@sdnhm.org		
Address					
URL					
Service-Region	All California				
Type	Student Program				
Subjects	General Science|Math|Engineering|Robotics				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	SDSA provides 7th–12th grade students the opportunity to learn more about and use basic skills that are important to modern robotic through innovative programs including: MAST (Math, Science and Technology), Botball, KISS Institute, and FIRST Robotics. Through the program students, teachers and industry mentors will interact in the design, basic programming and building of robots that are utilized in remote sensing and competitions. SDSA Robotics Volunteers – Interested in helping to shape the future of educational robotics programs in San Diego? Know something or someone that might help excite students to pursue careers in science via the inherently motivating subject of robotics? Then volunteer with SDSA's Robotics programs. Botball Mentors Needed: The San Diego Science Alliance is looking for a few good Botball mentors! Volunteers are needed throughout San Diego to help guide middle and/or high school students in the exciting educational robotics program Botball! Interested parties for either of the above should contact Jeff Major, the SDSA Robotics Program Manager, at jrmajor@ucsd.edu				
Outcomes	The Robotics Programs and local resources we have are networked to provide learning experiences that engage students in learning the practical applications of science, technology, engineering and mathematics.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation|Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Northrop Grumman Corp. Biosite Diagnostics The San Diego Women's Foundation				

Program-Title	PISCES Project	STEM Inventory	Entry# 83
Org-Type	Collaborative Group		
Lead	SDSU, SDSA, and SDCOE	PoC	Nancy Taylor, Project Director, Co-PI
PoC-Phone	858-292-3854	PoC-Email	ntaylor@sdcoe.net
Address	6475 Alvarado Road, San Diego, CA 92182		
URL			
Service-Region	Southern Border		
Type	Professional Development for Teachers		
Subjects	General Science		
Level	Elementary School (K-5th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ProgramDescription_Activities: The Partnerships Involving the Scientific Community in Elementary Schools (PISCES) Project has served over 200 teachers in over 40 schools throughout San Diego County, the North Slope of Alaska, and Baja California Sur, Mexico. Teachers are partnered with "Science Corps", university graduate and undergraduate science majors, to plan and implement a standards-based science unit using hands-on, inquiry-based instructional materials. These long-term teaching relationships encourage lasting change in K-6 teachers' attitudes about science, as well as their content knowledge. The PISCES Project has been an effective partnership program since its inception in 1998 with seed money coming from private donations. The program was established as a collaborative initiative as a result of the shared vision to enhance science learning in elementary schools.		
Outcomes	PISCES strives to enhance science teaching and learning in classrooms by partnering university graduate and advanced undergraduate science fellows (Science Corps) with teachers and local scientists. Our short and long term goals are listed below: Short term *Sustain current program reach with NSF funding *Offer strategic planning opportunities for schools and districts to consider sustainability measure *Continue outreach with Family Science Programs *Complete evaluation of program effectiveness and areas of program growth opportunity Long term *Research additional funding opportunities *Continue to expand the use of kit-based science instructio in school districts *Disseminate information and offer ongoing in classroom support *Maintain PISCES Instructional Materials Center *Create a support base which ensures the long-term sustainability of PISCES		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Donations	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice	In San Diego County alone, PISCES has served over 150 classrooms. This classroom intervention, along with additional professional development institutes, have resulted in more than 10,980 hours of support using more than 40 different hands-on science curriculum kits and a resource library of over 500 books and videos.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	National Science Foundation Biogen Idec Boston Scientific Girard Foundation Hewlett Packard Foundation Qualcomm Incorporated San Diego Science Alliance Sprint The Legoland Foundation		

Program-Title	BE WiSE		STEM Inventory	Entry#	84
Org-Type	Collaborative Group				
Lead	San Diego Science Alliance	PoC	Patricia S. Winter, BE WiSE Project Director		
PoC-Phone	858-454-7622	PoC-Email	pat.winter@gat.com		
Address					
URL					
Service-Region	Southern Border				
Type	Student Program				
Subjects	General Science|Chemistry|Physics|Earth Science				
Level	Middle School (5-8th grade)				
Other-Objectives					
Served-per-Year		Demographics	Women		
Content	BE WiSE invites girls in grade 7 and 8 to Science Overnights to explore their interest in science, hosts events for BE WiSE alumnae in high school to encourage their selection of more courses in science and math, and exposes these girls to adult women scientists who share their knowledge and passion and experiences with science and engineering careers. Events are scheduled throughout the academic year and during the summer. Imagine 30-50 middle school girls in grades 7 and 8 exploring an overnight scientific mystery adventure, including demonstrations, workshops and a hands-on project, all led by women who work in science every day.That's a BE WiSE Science Overnight, which begins on Friday afternoon and continues until Saturday. BE WiSE girls must write an essay about women in science and be recommended by their science teacher to be considered and then each overnight group is carefully assembled from different schools to encourage group bonding during the overnight. BE WiSE overnights can be located in any safe, sheltered location where science demonstrations and activities can take place, especially where women in science work everyday that enables behind-the-scenes tours and discussions of career information. Past locations include the Fleet Science Center, Birch Aquarium, Sea World, Mission Trails Regional Park, San Diego Museum of Man, CRES (Conservation & Research for Endangered Species, The Water Conservation Garden, San Diego Natural History Museum. A volunteer committee of professional women in scienc plan and implement the BEWiSE program. BE WiSE selects girls from all across San Diego County and has sustained contact with severa hundred girls over the past 9 years. The first BE WiSE alumnae entered college in June 2003.					
Outcomes	BE WiSE aims to make a difference for talented young women who are encouraged to pursue a science and engineering professions.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation|Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	BE WiSE started in 1999 and has encouraged close to 800 hundred girls to explore their interests in science. From BE WiSE surveys, we know that every girl knew more about science, every girl agreed that women can excel in science and engineering, 85% reported considering a career in science or engineering, and surprisingly, more than half planned to take a course that the would not have taker otherwise. BE WiSE alumnae commonly report that they had "fun in learning" and that the program "really made me think about a career in science." And we know BE WiSE inspires these girls who report "BE WiSE inspired me to enroll in an engineering class and tha was the greatest thing I ever did" and who acknowledge the "wonderful women I have met." Letters from parents further amplify the effect BE WiSE has on their daughters because "my daughter thoroughly enjoyed and learned so much from the BE WiSE programs" and "showing how to mentor others who come after her, which is desperately needed in both the working world and in the school to career transition."					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Anne Prause Blue Biogen Idec Foundation Boston Scientific Foundation Girard Foundation Leo S. Guthman Fund Todd and Mari Gutschow Family Fund San Diego Women's Foundation SeaWorld San Diego The Winter Group Zoological Society of San Diego Nokia, Inc. Qualcomm Incorporated Sempra Energy Foundation Oracle Foundation Mc Carthy Foundation Friedman Family Foundation Lynne & Mason Rosenthal Bernys Borun Hewlett Packard Hughes Network Systems General Atomics TRW, now Northrop Grumman Compound Solutions					

Program-Title	Middle School Science Education Leadership	STEM Inventory	Entry# 85
Org-Type	Collaborative Group		
Lead	San Diego Science Alliance	PoC	Don Whisman, Director
PoC-Phone	N/A	PoC-Email	dwhisman@sdcoe.net
Address			
URL			
Service-Region	Southern Border		
Type	Professional Development for Teachers		
Subjects	General Science		
Level	Middle School (5-8th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The MSSELI program identifies lead science teachers from San Diego City and County middle schools. Once identified, these teachers participate in an intensive summer and academic year professional development program focused on science content, leadership strategies, and collaboration with area public and private scientific institutions.		
Outcomes	The mission of MSSELI is to develop a scientifically literate society, with goals of identifying and supporting middle school science teachers who will serve as catalysts for change and to establish a professional learning community.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Foundation	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	San Diego County Office of Education San Diego City Schools Program_Other-Organizations: The San Diego Foundation San Diego Science Alliance The Hervey Family Fund at The San Diego Foundation The Engel Fund at The San Diego Foundation The Pfizer Foundation General Atomics Sciences Education Foundation The McCarthy Family Foundation The Wells Fargo Foundation		

Program-Title	Elementary Institute of Science Program		STEM Inventory	Entry#	86
Org-Type	Non-Profit-based				
Lead	Elementary Institute of Science	PoC	N/A		
PoC-Phone	619-263-2302	PoC-Email	eis@eisca.org		
Address	608 51st Street, San Diego, CA 92114				
URL					
Service-Region	Southern Border				
Type	Student Program				
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Computer Science|Robotics				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Elementary Institute of Science (EIS) is an innovative science and technology learning center located in southeastern San Diego. EI provides Fall-Spring After-School, Fall-Spring Saturday, and Summer enrichment programs for students ages 7-13. After-school, Saturday, and Summer programs at EIS serve students from all over San Diego County. Students are exposed to the wonders of science nature, and technology with a mixture of laboratory work, slide presentations, hands-on activities, and field trips. EIS students also benefit from guest instructors and speakers from San Diego's scientific institutions and educational facilities. Students 7-13 of age unravel the mysteries of astronomy, biology, chemistry, computer science, engineering, geology, health, natural science, and photography in a fun, hands-on educational way. EIS instructors are junior, senior, or graduate students at local universities majoring i the subjects they teach at EIS.					
Outcomes	The Elementary Institute of Science's mission is to be a premiere science enrichment program which nurtures the intellectual curiosity of San Diego's young people by providing "hands-on" experiences to stimulate an on-going appreciation and understanding of science and technology. Our programs are envisioned to create a widely respected model for science and technology enrichment where community resources partner to provide students of all ages the opportunities, facilities, role models and academic tools to build a bright future.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	The Elementary Institute of Science (EIS) began in 1964 with a few curious children and an old 40-gallon aquarium that had been home to a couple of snakes. Since there the institute has expanded to a 15,000-square-foot, state-of-the-art, science and technology learning center encompasses nine science labs, two 500-gallon aquariums, a lecture theater, a conference room, a science library, an outdoor amphitheater, a student garden, hummingbird and butterfly habitats, and playfield. Our lab space allows us to offer classes in subjects like astronomy, biology, chemistry, computer science, engineering, geology, health, natural science, and photography.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	The Preuss School		STEM Inventory	Entry#	87
Org-Type	Higher-Education-based				
Lead	University of California San Diego	PoC	N/A		
PoC-Phone	858-658-0988	PoC-Email	preussoffice@ucsd.edu		
Address	9500 Gilman Drive Dept. 0536, La Jolla, CA 92093				
URL					
Service-Region	Southern Border				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology|Other				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics	Economically disadvantaged		
Content	The Preuss School is a middle and high school dedicated to providing an intensive college prep education for motivated low-income students who will become the first in their families to graduate from college. If these goals are realized, the school will matriculate students who are competitively eligible to enter the University of California or other selective institutions of higher education. The school, which is jointly chartered by the San Diego Unified School District and UCSD, opened in 1999 with 150 students in grades 6 – 8. It currently has 767 students in grades 6 – 12. Preuss students are selected through a process of application and lottery. To be eligible for the lottery, a student must meet three criteria: student is from a low-income family (per school lunch criteria); student has no parent or guardian who has graduated from a 4-year college or university; student has the academic potential and motivation to benefit from an intensive college preparatory program.				
Outcomes	The mission of the Preuss School is to improve educational practices and provide an intensive college preparatory school for low-income student populations, which are historically underrepresented on the campuses of the University of California. The mission will thereby further the outreach efforts of the University of California and its commitment to the San Diego community and to educationa intervention. Additionally, the school will support the district's goal of reducing the achievement gap among underrepresented students.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	The Preuss School's recent academic performance index score of 877 places it as a top high school in San Diego County. 90% of this year's graduating class has been offered admission to the following universities and colleges: UC San Diego UC Berkeley, UC Los Angeles, UC Davis, UC Riverside, UC Santa Barbara, UC Santa Cruz, New York University, Stanford, MIT, Dartmouth, St. Mary's, USD and many of the Cal State universities including San Diego State and Long Beach. 10% of the graduating class was offered either Dual Admission or the Guaranteed Transfer Option from a community college to UCSD.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	MIT OpenCourseWare		STEM Inventory	Entry#	88
Org-Type	Higher-Education-based				
Lead	Massachusetts Institute of Technology	PoC	N/A		
PoC-Phone	N/A	PoC-Email	N/A		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program|Lesson Plan				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology|Other				
Level	High School (9-12th grade)|Undergraduate|Graduate				
Other-Objectives					
Served-per-Year		Demographics			
Content	The MIT's OpenCourseWare initiative is a free and open educational resource (OER) for educators, students, and self-learners around the world. MIT OCW is a publication of MIT course materials and does not require any registration. MIT OCW provides users with oper access to the syllabi, lecture notes, course calendars, problem sets and solutions, exams, reading lists, even a selection of video lectures, from 1550 MIT courses representing 34 departments and all five of MIT's schools. The initiative will include materials from virtually all courses by the year 2008. Please note, MIT OCW is not a degree-granting or certificate-granting activity nor does it provide access to MIT faculty.				
Outcomes	MIT OCW's goals are to: *Provide free, searchable access to MIT's course materials for educators, students, and self-learners around the world. *Extend the reach and impact of MIT OCW and the "opencourseware" concept.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation|Industry|Academia	Primary-$	MIT OCW is a large-scale, Web-based electronic publishing initiative funded jointly by the William and Flora Hewlett Foundation, the Andrew W. Mellon Foundation , MIT, and generous support of the Ab Initio software company.		
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	What difference does it make? The MIT OCW evaluation team studies how individuals' teaching and learning experiences change through the use of the site, and we also want to understand what broader effects MIT OCW may have. Results have shown that: 95% of users report MIT OCW has or will help them to be more productive and effective 46% of educators have adopted MIT OCW content to improve their own teaching 38% of students use MIT OCW materials to complement a course they are taking; 34% use MIT OCW to learn about subjects outside of formal classes 56% of self-learners use MIT OCW to enhance personal knowledge; 16% use MIT OCW t stay current in their chosen field 96% of all users would recommend MIT OCW to others And we have also found that MIT OCW is having a significant impact on teaching and learning at MIT: 35% of Fall 2005 entering freshmen aware of MIT OCW prior to attending MIT indicate the site was a significant or very significant influence on their choice of school 71% of all MIT students (undergraduate an graduate) make use of MIT OCW in their research and studies 96% of MIT students using the MIT OCW site report it has had a positive or extremely positive impact on their student experience 40% of MIT faculty using MIT OCW report that the site is a helpful tool in revising/updating courses; 38% use the site for advising students				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	William and Flora Hewlett Foundation Andrew W. Mellon Foundation Ab Initio Software Company				

Program-Title	High Tech High	STEM Inventory	Entry# 89
Org-Type	Non-Profit-based|Other		
Lead	High Tech High	PoC	N/A
PoC-Phone	N/A	PoC-Email	info@HighTechHigh.org
Address	2861 Womble Rd., San Diego, CA 92106		
URL			
Service-Region	Southern Border		
Type	Student Program		
Subjects	Math|Engineering|Technology		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	High Tech High began in 2000 as a single charter high school launched by a coalition of San Diego business leaders and educators. It ha evolved into a school development organization with a growing portfolio of innovative charter schools spanning grades K-12. HTH combats the twin problems of student disengagement and low academic achievement by creating personalized, project-based learnin environments where all students are known well and challenged to meet high expectations. HTH schools attempt to show how education can be redesigned to ensure that all students graduate well prepared for college, work, and citizenship.		
Outcomes	Outcomes-Generated: High Tech High's mission is to develop and support innovative public schools where all students develop the academic, workplace, and citizenship skills for postsecondary success. At each HTH school, our goals include: *Serve a student body that mirrors the ethnic and socioeconomic diversity of the local community. *Integrate technical and academic education to prepare students for post-secondary education in both high tech and liberal arts fields. *Increase the number of educationally disadvantaged students in math and engineering who succeed in high school and post-secondary education. *Graduate students who will be thoughtful, engaged citizens.		
Started	2000	Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	100 percent of graduates have been admitted to college, 80% to four-year institutions!		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	MAES PreCollege Outreach Programs	STEM Inventory	Entry# 90
Org-Type	CTE|Industry-based|Collaborative Group		
Lead	Society of Mexican American Engineers and Scientists	PoC	N/A
PoC-Phone	281-557-3677	PoC-Email	questions@maes-natl.org
Address	11500 Northwest Freeway, Suite 200V, Houston TX 77092		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Engineering|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	MAES PreCollege is a K-12 outreach program implemented by the members of MAES, Inc. The program is a nationwide, student-oriented activity sponsored by MAES and implemented by its student and professional chapters in various cities throughout the United States. In conducting outreach activities, MAES members work directly with Hispanic youths in high schools and junior high schools to promote student success. Depending on the student chapter, tutoring sessions vary at the high or middle school. The tutoring sessions are held during lunch or after school. In working with junior high school youths MAES students expose them to technical career opportunities and prepare them to study in the field. MAES students also work directly with high school youths, advising them of the requirements and expectations of college life as an engineer or science student.		
Outcomes	MAES PreCollege is an ongoing effort to improve education in our communities and increase the numbers of Hispanics who study science and engineering. In this way we also help to ensuring that the Hispanic community will be able to do its part to meet the challenges that America will face in the 21st century.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	NASA, Industry Advisory Council		

Program-Title	Programs for Children		STEM Inventory	Entry#	91

Org-Type	Non-Profit-based|Other		
Lead	Aquarium of the Pacific	PoC	Please call or email for information
PoC-Phone	562-951-1630	PoC-Email	aquariumofpacific@lbaop
Address	100 Aquarium Way Long Beach, CA 90802		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Biology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	At the Aquarium of the Pacific there are programs for kids of all ages. The programs are grouped by age: Ages 6 & Under, Ages 7-12, and Ages 12 & Up. In addition, the aquarium offers summer, winter and sleepover camps. To explain what goes on at these camps, we will take an inside look at one of the summer camps, the Marine Science Sleepover Camp. The Marine Science Sleepover Camp gives 7th to 9th graders interested in marine science an opportunity to learn hands on what it is like to be a marine biologist. Participants wi conduct experiments, study animal behavior, learn oceanographic sampling techniques, and more. The other programs that we offer are programs that relate to a specific area of interest. The programs for kids 12 and under are mostly informative while the programs for kids 12 mainly deal with job shadowing. No matter if you are young or old you will find something that intrigues you as marine biology is a fascinating field.		
Outcomes	Our age specific programs at the Aquarium hopes foster everybody's love of the ocean.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	YESP - Young Engineers & Scientists Program	STEM Inventory	Entry# 92
Org-Type	Higher-Education-based		
Lead	Center for the Advancement of Hispanics in Sci. and Eng. Edu.	PoC	Charles E. Vela, Executive Director
PoC-Phone	301-918-1014	PoC-Email	N/A
Address	8100 Corporate Dr., Suite 410, Landover, MD 20785		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Math|Engineering		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	Hispanic or Latino
Content	Over the past 10 years, the Center for the Advancement of Hispanics in Science and Engineering Education (CAHSEE) has developed a system of programs geared at channeling, primarily Latino and other underrepresented minority, students into science and engineerin careers. These programs have proven to be successful in preparing Latino and other underrepresented youths to enter and succeed in science and engineering schools. CAHSEE is a non-profit organization registered in the District of Columbia with programs in Metropolitan Washington, New York, Chicago, Massachusetts, and California. The YESP - Young Engineers & Scientists Program places talented Hispanic college students in the research labs of government agencies. The main objective of YESP is to provide minds-on/hands-on real world experience in each student's field of interest. This experience is designed to give the student exposure to scientific research and engineering and thus catapult the student onto the fast track of success in science or engineering. Presently, efforts are being made to expand this program to corporate America, as well as other science and technology rich federal and state agencies.		
Outcomes	CAHSEE's programs are aimed at developing students' intellectual abilities, thus providing them with a sound academic foundation to bolster their professional expectations, attitude, and motivation towards learning and commitment to excellence and educational success. This is done by placing the students in a demanding, yet nurturing, academic environment. Rigorous academic demands in a can-do atmosphere have proven to have a marked effect on the future performance of CAHSEE students in math, science and engineering college programs.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	CAHSEE’s rate of success is very high. All STEM Institute students enter and excel in college, mostly in science and engineering. Many attend some of the nation’s top universities; many receive scholarships. The college graduation rate for CAHSEE alumni is 100% with 70% entering graduate school upon two years of graduating from college. Many of our former interns are currently enrolled in or have completed doctoral or master’s degree programs.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	George Washington University The City College of New York Merrimack College University of Chicago NASA InterAmerican Development Bank Society of Hispanic Professional Engineers Society of Mexican American Engineers and Scientists		

Program-Title	YEP - Young Educators Program		STEM Inventory	Entry#	93
Org-Type	Higher-Education-based				
Lead	Center for the Advancement of Hispanics in Sci. and Eng. Edu.	PoC	Charles E. Vela, Executive Director		
PoC-Phone	301-918-1014	PoC-Email	N/A		
Address	8100 Corporate Dr., Suite 410, Landover MD 20785				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Math|Engineering|Technology				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics	Hispanic or Latino		
Content	Over the past 10 years, the Center for the Advancement of Hispanics in Science and Engineering Education (CAHSEE) has developed a system of programs geared at channeling, primarily Latino and other underrepresented minority, students into science and engineerin careers. These programs have proven to be successful in preparing Latino and other underrepresented youths to enter and succeed in science and engineering schools. CAHSEE is a non-profit organization registered in the District of Columbia with programs in Metropolitan Washington, New York, Chicago, Massachusetts, and California. The Young Educators Program Fellowship is geared towards further developing the fellow's academic, leadership, civic, and presentation skills. Our goal is to prepare the fellows to excel in their college education and professional careers. We do this by creating an environment that exposes fellows to political power and strategic thinking, and allows them to master a topic and teach this topic to talented Latino pre-college students enrolled in CAHSEE's Science, Technology, Engineering, and Mathematics (STEM) Institute. In our paradigm, graduate students and advanced seniors work with undergraduate students, teaching college level classes to junior and high school students participating in the STEM Institute. As such, YEP Fellows serve as a role model to the STEM Institute students and prepare them to enter and succeed in college. Fellows learı how to convey knowledge and teach college level classes in a demanding, yet friendly, environment.					
Outcomes	The goal is to create a cohesive talent pool of Hispanics who will lead our nation and community by assuming key roles in all aspects of American society. We like to say that we are contributing to the creation of the future leadership of America.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	CAHSEE's rate of success is very high. All STEM Institute students enter and excel in college, mostly in science and engineering. Many attend some of the nation's top universities; many receive scholarships. The college graduation rate for CAHSEE alumni is 100% with 70% entering graduate school upon two years of graduating from college. Many of our former interns are currently enrolled in or have completed doctoral or master's degree programs.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	George Washington University The City College of New York Merrimack College University of Chicago NASA InterAmerican Development Bank Society of Hispanic Professional Engineers Society of Mexican American Engineers and Scientists				

Program-Title	M.Y. S.P.A.C.E.
Org-Type	Professional Association-based
Lead	Satellite Educators Association
PoC	N/A
PoC-Phone	N/A
PoC-Email	N/A
Address	
URL	
Service-Region	Nationwide
Type	Student Program
Subjects	Earth Science|Space
Level	Middle School (5-8th grade)|High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	
Content	M.Y. S.P.A.C.E. is an initiative of the Satellites & Education Conference, held each August at California State University, Los Angeles. Middle school and high school students who attend the conference with their teachers are brought together in team building activities and charged with a global issue to study during the conference. They are given the resources of the university and of NASA and NOAA. They present a report on their findings to the conference during the last session. During an intense three days, they build friendships with students from around the world while gaining multiple perspectives. It is a very exciting program that is gaining world renown.
Outcomes	During the program students are engaged with other students from around the world to see multiple perspectives of the global issues they are working with. It allows interaction between students and encourages kids to become more connected with world issues. The program is a very exciting program that is gaining world renown. Teachers from around the world are involved and together provide feedback on the topics that the pre-service teachers from CSULA select. With teachers all over the world involved and students learning more about global issues it is no surprise that this program is becoming a world renowned program.
Started	
Funded-Through	
Length	
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	National Aeronautics and Space Administration (NASA) National Oceanic and Atmospheric Administration (NOAA) CSU Los Angeles

Program-Title	STEM Center	STEM Inventory	Entry# 95
Org-Type	Higher-Education-based		
Lead	Center for the Advancement of Hispanics in Sci. and Eng. Edu.	PoC	Charles E. Vela, Executive Director
PoC-Phone	301-918-1014	PoC-Email	N/A
Address	8100 Corporate Dr., Suite 410, Landover MD 20785		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Math|Engineering|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	Hispanic or Latino
Content	Over the past 10 years, the Center for the Advancement of Hispanics in Science and Engineering Education (CAHSEE) has developed a system of programs geared at channeling, primarily Latino and other underrepresented minority, students into science and engineerin careers. These programs have proven to be successful in preparing Latino and other underrepresented youths to enter and succeed in science and engineering schools. CAHSEE is a non-profit organization registered in the District of Columbia with programs in Metropolitan Washington, New York, Chicago, Massachusetts, and California. The STEM program we run is a four-summer program designed to prepare pre-college students fifth through eleventh grades to enter and succeed in science and engineering at the colleges of their choice. During the first summer, students concentrate in learning mathematical abstraction, logic and syntax, and geometrical conceptualization and visualization. The second year, students learn model building of physical phenomena and/or economic systems. The third summer, students focus in developing mathematical and engineering intuition. Finally, the fourth summer, students learn to simplify complexity by focusing in mathematical and scientific analysis and synthesis. These four areas of concentration: mathematical abstraction, logic and syntax visualization, conceptualization, model building, intuition analysis, and synthesis constitute the fundamental basis for outstanding success in science and engineering.		
Outcomes	CAHSEE's programs are aimed at developing students' intellectual abilities, thus providing them with a sound academic foundation to bolster their professional expectations, attitude, and motivation towards learning and commitment to excellence and educational success. This is done by placing the students in a demanding, yet nurturing, academic environment. Rigorous academic demands in a can-do atmosphere have proven to have a marked effect on the future performance of CAHSEE students in math, science and engineering college programs.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	CAHSEE’s rate of success is very high. All STEM Institute students enter and excel in college, mostly in science and engineering. Many attend some of the nation’s top universities; many receive scholarships. The college graduation rate for CAHSEE alumni is 100% with 70% entering graduate school upon two years of graduating from college. Many of our former interns are currently enrolled in or have completed doctoral or master’s degree programs.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	George Washington University The City College of New York Merrimack College University of Chicago NASA InterAmerican Development Bank Society of Hispanic Professional Engineers Society of Mexican American Engineers and Scientists		

Program-Title	Advancement Via Individual Determination	STEM Inventory		Entry#	96
Org-Type	Non-Profit-based				
Lead	Advancement Via Individual Determination (AVID)	PoC	Schellen Benton, Receptionist		
PoC-Phone	858-623-2843	PoC-Email	N/A		
Address	5120 Shoreham Place, Suite 120, San Diego CA 92122				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology|Other				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	AVID is a fourth through twelfth grade system to prepare students in the academic middle for four-year college eligibility. It has a proven track record in bringing out the best in students, and in closing the achievement gap. AVID targets students in the academic middle — B, C, and even D students — who have the desire to go to college and the willingness to work hard. These are students who are capable of completing rigorous curriculum but are falling short of their potential. Typically, they will be the first in their families to attend college, and many are from low-income or minority families. AVID pulls these students out of their unchallenging courses and puts them on the college track: acceleration instead of remediation. Not only are students enrolled in their school's toughest classes, such as honors and Advanced Placement, but also in the AVID elective. For one period a day, they learn organizational and study skills, work on critical thinking and asking probing questions, get academic help from peers and college tutors, and participate in enrichment and motivational activities that make college seem attainable. Their self-images improve, and they become academically successful leaders and role models for other students. Currently, in California there are programs in the following regions: Sonoma County, Shast County, Sacramento, San Diego, Bay Area, Santa Clara Area, Stockton, Fresno County, San Luis Obispo County, Riverside & San Bernardino Counties, Los Angeles County.				
Outcomes	AVID prepares students for a four-year college entry. The program brings out the best in students coming from low-income or minority families and is closing the achievement gap in those students who are in the academic middle and those at the higher end.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$	School districts enter into agreements with AVID Center for materials, membership, and professional development. Districts provide public school teachers and tutors.		
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	State-funded, independent research, together with AVID's own data, validate that the AVID college-readiness system works. AVID students are more likely to take AP classes, complete their college eligibility requirements, and get into four-year colleges than students who don't take AVID. Almost all AVID students who participate for at least three years are accepted to college, with roughly three quarters getting into four-year universities. AVID also helps ensure students, once accepted to college, possess the higher-level skills they need for college success. Visit Number Crunching to learn more about AVID's data and research.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	School districts				

Program-Title	Techbridge
Org-Type	Non-Profit-based
Lead	Chabot Space & Science Center
PoC	N/A
PoC-Phone	510-777-9170
PoC-Email	techbridge@chabotspace.org
Address	7700 Edgewater Drive, Suite 519, Oakland, CA 94621
URL	http://www.techbridge.org/
Service-Region	Bay Area
Type	Student Program
Subjects	General Science|Engineering|Technology
Level	Middle School (5-8th grade)|High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	Women|Asian and/or Pacific Islander

Content

Techbridge is an after-school and summer program designed to encourage girls in technology, science, and engineering. The program was started in Oakland, CA and has expanded to other communities, including other school districts and the California School for the Blind in Fremont. Originally funded by the National Science Foundation, Techbridge has reached over 1250 girls since its founding in 2000. The program continues to build on its successes through expansion to new schools and partnerships. Not many girls have the chance to work with their hands in the classroom, but Techbridge introduces projects like building robots, assembling telephones, and taking apart appliances. Since girls may not ask to help with household projects or include tools on their wish lists, parents assume tha they aren’t interested. But our experience tells otherwise. When given the chance, girls do enjoy building with LEGOS and fixing household appliances. We see this first hand during hands-on projects. We imagine that experiences like these will help girls find technology and engineering less intimidating and more interesting as a career option.

Outcomes

The goal of Techbridge is to welcome girls to technology, science, and engineering. The program encourages girls to do hands on projects and hopes that those experiences will lead to a career option in technology, science, and engineering. A bridge between middle school and high school "Techbridge comes at a critical time in girls' development," comments Project Director, Linda Kekelis. "Girls have many important decisions to make in middle school and high school, but don’t always receive the academic guidance they need." Techbridge supports girls by teaching them technical and scientific skills and most importantly, helping them plan for the next steps to college and careers.

Started	Funded-Through
Length	Cost
Primary-Funding	Primary-$
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	Sponsor-Org
Sponsor-Phone	Sponsor-Email

Other-Orgs: Oakland Unified School District Mills College National Science Foundation Moore Foundation S.D. Bechtel, Jr. Foundation Mitsubishi Electric America Foundation Juniper Networks The Fitzpatrick Foundation Adobe

Program-Title	Mathematics and Science Scholars	STEM Inventory	Entry# 98
Org-Type	Higher-Education-based		
Lead	California State University, San Bernardino, College of Natural Sciences	PoC	Dr. George M Georgiou, MASS Coordinator
PoC-Phone	909-537-3378	PoC-Email	georgiou@csusb.edu
Address	5500 University Pkwy San Bernardino, CA 92407-2397		
URL			
Service-Region	Inland Empire		
Type	Student Program		
Subjects	Biology|Math|Chemistry|Physics|Computer Science|Environmental Science|Engineering		
Level	High School (9-12th grade)|Undergraduate		
Other-Objectives			
Served-per-Year	40	Demographics	
Content	The NSF has awarded a $500,000 grant to CSUSB's College of Natural Sciences to help fund its Mathematics and Science Scholars (MASS) program for the next four years. The MASS program is designed to serve students from diverse backgrounds with financial nee who will study in the science, technology, engineering and mathematics (STEM) disciplines. At Cal State San Bernardino, the federal funding will focus on the fields of biology, chemistry and biochemistry, computer sciences, geological sciences, mathematics and physics. Program candidates are currently being recruited from the top 2 percent of high school graduates throughout San Bernardino and Riverside counties. This program is not to overlap with the Presidential Academic Excellence Scholarship program which recruits from the top 1 percent of graduates from high schools in San Bernardino County. Beginning in fall 2007, MASS scholarships will be awarded to at least 14 incoming freshmen. The program will also award scholarships to eight current CSUSB juniors and eight seniors, who will serve as role models for the freshmen. Scholarship recipients must attend full-time and maintain a minimum 3.3 grade point average to receive the $3,500 a year. The scholarship is for a maximum of four years. Overall, the MASS program will award more thar 120 annual scholarships. In addition, MASS students will be mentored by the professor in their corresponding discipline. They will also enjoy numerous privileges such as priority registration, workshops and seminars to prepare them for graduate study, and summer internship programs. To extend the MASS program beyond the four years, the university's College of Natural Sciences is actively seeking funding from both public and private sources. Several local companies and agencies have already pledged their support for the MASS program, including QMotions, Associated Engineers Inc., Mojave Desert Air Quality District, Kelly Space and Technology Inc. and Optivus. The MASS program is led by George Georgiou, chair of the Cal State San Bernardino computer science department, and former assistant dean of the college.		
Outcomes	Graduate students in STEM disciplines who will be ready to join the workforce or continue graduate work.		
Started		Funded-Through	2011
Length	One-time	Cost	
Primary-Funding	Foundation|Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice	Yes.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mojave Desert Air Quality District QMotions Associated Engineers Inc. Kelly Space and Technology Inc. Optivus. National Science Foundation		

Program-Title	Summer Camp	STEM Inventory	Entry# 99
Org-Type	Non-Profit-based		
Lead	Chabot Space & Science Center	PoC	N/A
PoC-Phone	510-336-7426	PoC-Email	camp@chabotspace.org
Address	10000 Skyline Blvd. Oakland, CA 94619		
URL			
Service-Region	Bay Area		
Type	Student Program		
Subjects	General Science|Earth Science|Space|Robotics|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Chabot Space & Science Center offers week long half-day and full-day camps for young people ages 6–13 interested in science and having fun! Our camps feature a hands-on youth-centered activity based learning model utilizing all the resources of our Science Center. Several topics our camps offer are: Robotics World, CSI Camp, Micronauts, Spaceship Earth, Science of Egypt, and Mars Camp.		
Outcomes	The Chabot Summer Camp aims to provide kids with a wonderful summer experience.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Classroom Programs		STEM Inventory	Entry#	100
Org-Type	Non-Profit-based				
Lead	Aquarium of the Bay	PoC	N/A		
PoC-Phone	415-623-5300	PoC-Email	N/A		
Address	PIER 39, Embarcadero at Beach Street, San Francisco CA 94133				
URL					
Service-Region	Bay Area				
Type	Student Program				
Subjects	General Science|Biology|Earth Science|Environmental Science				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	The classes we offer focus on inquiry based learning where students generate questions and are challenged to answer through guided discussions, scientific activities, games and hands-on experiences. Programs can be modified to meet the needs of students in grades K - 12. Currently there are 7 topics offered: Fish Tales, Flukes and Flippers, Food Web of the Bay, Life on the Rocks, Microscope Magic and Plankton Power, Shark Discovery, and Wack Wetlands and Super Sloughs. A short description of 3 of the programs are listed below: Life on the Rocks: Students learn what adaptations tidepool invertebrates have that allow them to live along California's rocky coastline. Through hands-on activities, students will explore how these small creatures can survive the pouding waves. They will also learn how to handle live animals and how human's can impact these animals lives. This 2-hour class also includes a guided tour of the Aquarium. Shark Discovery: Explore the world of cartilagenous fish! This class discusses the facts and myths surrounding sharks, rays, and skates. Through hands-on activities, students will discover the importance of sharks in marine environments, as well as the tremendous threats they face. This 2-hour class also includes a guided tour of the Aquarium. Flukes and Flippers: Explore the natural history of marine mammals and the special adaptations that allow these animals to live in a marine environment. Students will learn about the environmental problems faced by these incredible animals and what we can do to help protect them. This 2-hour hands-on class also includes a guided tour of the Aquarium.				
Outcomes	Through the program we hope to inspire students to develop an interest in marine life. Students will learn fascinating facts about marine life and hopefully that will nudge them forward to pursue a future in science.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Learn to Earn Intern Program		STEM Inventory	Entry#	101

Org-Type	Non-Profit-based		
Lead	California Science Center	PoC	Community Programs Manager
PoC-Phone	213-744-2440	PoC-Email	4info@cscmail.org
Address	700 State Drive Los Angeles, CA, 90037		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Learn to Earn Interns are trained to serve as mentors and teaching assistants for Curator Kids Club, a science-enrichment program for children ages 10 to 13. In turn, experienced Science Center staff guide L2E Interns, helping them to develop communication, leadershi and workplace skills and to articulate educational and career goals. Paid intern positions are available during the Year-Round and Summer program.		
Outcomes	Goals of the Learn to Earn Program include: 1) Fostering self-esteem. 2) Making science learning relevant to the interns' lives. 3) Using informal science education as a vehicle to build skills for academic achievement in all disciplines. 4) Preparing students for the workforce and college by focusing on communication and leadership skills. 5) Stimulating lifelong learning.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	FREE Teacher Workshops		
Org-Type	Non-Profit-based		
Lead	Aquarium of the Bay	PoC	N/A
PoC-Phone	415-623-5323	PoC-Email	emilyt@aquariumofthebay.com
Address	PIER 39 Embarcadero at Beach Street, San Francisco CA 94133		
URL			
Service-Region	Bay Area		
Type	Professional Development for Teachers|Lesson Plan		
Subjects	General Science|Biology|Earth Science|Environmental Science		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	At the FREE Teacher Workshops teachers will: *Gain increased knowledge of San Francisco Bay biology & ecology. *Learn what programs Aquarium of the Bay provides. *Go on a guided tour of the facility. *Receive lesson plans and activities to use in your classroom. *Sign up for your field trip to the Aquarium!		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Student Monitoring Programs		STEM Inventory	Entry#	103
Org-Type	Non-Profit-based				
Lead	Farallones Marine Sanctuary Association (FMSA)	PoC	Amy Dean, Education Manager		
PoC-Phone	415-561-6625 x303	PoC-Email	adean@farallones.org		
Address					
URL					
Service-Region	Bay Area				
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources				
Subjects	Environmental Science				
Level	High School (9-12th grade)|Undergraduate				
Other-Objectives					
Served-per-Year	3500	Demographics			
Content	There are two monitoring projects that are offered, the Rocky Intertidal Monitoring Project and the Sandy Beach Monitoring Project. Participants of the program walk along the coast of California and are involved with the collection of environmental data. More about the two projects is listed below. Rocky Intertidal Monitoring Project The rocky intertidal on the west coast of North America is one of the richest and most diverse habitats in the world. The plants and animals living in the rocky intertidal are well adapted to the waves, tides, and other harsh conditions that make this environment unique. Unfortunately, these intertidal creatures are often threatened b the impacts of human behavior. Threats such as harvesting, trampling, and global warming can cause changes in the distribution, abundance, and diversity of the biota at the rocky shore. Students taking part in the Rocky Intertidal Monitoring Project survey key invertebrate and algae species at one of the Sanctuary's established monitoring sites: Duxbury Reef, Marin County or Pigeon Point, San Mateo County. By monitoring, students contribute to a long-term data set used to identify changes in the abundance and distribution of species over time. Sandy Beach Monitoring Project Students have fun getting sandy and wet while monitoring the distribution and abundance of the Pacific mole crab (Emerita analoga). We monitor mole crabs at Sanctuary beaches because they are an important lin in the food web. Teachers and FMSA staff work together to locate a safe monitoring site that is close to the participating school or facility. FMSA supports teachers interested in monitoring at beaches in Sonoma, Marin, San Francisco, and San Mateo counties. The data collected are meant to provide baseline data for the Sanctuary in the event of an oil spill or other disaster. Students are encouraged to use the data to answer their own research questions.				
Outcomes	Through research-based monitoring, students develop their problem solving skills, gain experience using tools and methods employed by field scientists, and learn to analyze data.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Curator Kids Club	STEM Inventory	Entry# 104
Org-Type	Non-Profit-based		
Lead	California Science Center	PoC	N/A
PoC-Phone	213-744-2440	PoC-Email	N/A
Address	700 State Drive Los Angeles, CA 90037		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math|Environmental Science|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Curator Kids Club (CKC), a science-enrichment program, targets students from the underserved communities surrounding the California Science Center, providing quality science learning experiences to students who might not otherwise have such an opportunity. CKC familiarizes students with basic concepts of the life sciences, physical sciences, math and technology, as well as reading skills, social skills and conflict resolution. Science Center educators and trained young adults participating in the Learn-2-Earn program provide supervision as well as role models for club members. CKC meets for five weeks in the summer (July and August) and on selected Saturdays during the school year (October through April). Applicants must make the commitment to attend the entire summer or year-round sessions.		
Outcomes	Goals of the Curator Kids Club include: 1) Fostering self-esteem through genuine experiences of success with science. 2) Using informa science education as a vehicle to build basic skills for academic achievement in all disciplines. 3) Stimulating a life-long interest in learning. 4) Curator Kids Club meets these goals by offering engaging, science-rich experiences for children throughout the year. Through guided activities and field trips, children explore the world and their own potential.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Coastal Ecosystem Workshop	STEM Inventory	Entry# 105
Org-Type	Non-Profit-based		
Lead	The Farallones Marine Sanctuary Association (FMSA)	PoC	Amy Dean, Education Manager
PoC-Phone	415-561-6625 x303	PoC-Email	adean@farallones.org
Address	991 Marine Drive, San Francisco CA 94129		
URL			
Service-Region	Bay Area		
Type	Professional Development for Teachers|Lesson Plan|Resources		
Subjects	General Science|Biology|Chemistry|Earth Science|Environmental Science		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate|Professional Development		
Other-Objectives			
Served-per-Year		Demographics	
Content	Teachers, looking for new ways to make science come alive in your classroom? This year, our summer workshop will focus on the physical and biological oceanography of the Gulf of the Farallones - and our coastal ocean. This unique oceanographic area invites opportunities for learning about geology, weather and climate, chemistry, ecology, and the myriad of connections between humans and the ocean. Participants will broaden their knowledge of coastal upwelling, the Coriolis effect, plankton dyanmics, and the effects c human activities on marine ecosystems. Featured guest scientists from the Romberg Tiburon Center will discuss current research. Lectures will be followed by classroom activities and hands-on demonstrations. Participants will take part in a research cruise aboard the R/V Fulmar and will receive a unit of activities and materials from the sanctuary's Coastal Ecosystem Curriculum. Please note that workshop presentations, activities, and content are geared for middle and high school biology and environmental science teachers, however all teachers and educators are welcome.		
Outcomes	The program's mission is to bring in biology teachers and show them that there are many ways to make learning science fun. After completing the program the educators go back to their schools to demonstrate that science can be fun; hopefully this will inpsire students to pursue a future in science.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Sharkmobile		STEM Inventory	Entry#	106
Org-Type	Non-Profit-based				
Lead	The Farallones Marine Sanctuary Association (FMSA)	PoC	Christy Walker		
PoC-Phone	650-712-8948	PoC-Email	Christy.Walker@noaa.gov		
Address					
URL					
Service-Region	Bay Area				
Type	Student Program				
Subjects	General Science|Biology				
Level	Elementary School (K-5th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	ProgramDescription_Activities: The Sharkmobile is a free one-hour classroom program that explores the biology of sharks from around the world. Discover the unique adaptations, diverse forms and lives of sharks through hands-on artifacts and activities. Students will discuss shark myths and use their observation skills in a classification exercise. The program is offered for grades 4-6.				
Outcomes	This program looks to inspire kids to develop an interest in sharks and other forms of marine biology.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Visitor Center Educational Program		
Org-Type	Non-Profit-based		
Lead	Farallones Marine Sanctuary Association (FMSA)	PoC	Justin Holl
PoC-Phone	415.561.6625 x308	PoC-Email	jholl@farallones.org
Address			
URL			
Service-Region	Bay Area		
Type	Student Program		
Subjects	General Science|Biology		
Level	Elementary School (K-5th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Sanctuary Visitor Center offers a variety of grade specific, lively, hands-on programs for students grades K-6. Programs are two hours long and take place in the Sanctuary classroom, Visitor Center, and on beautiful Chrissy Field Beach. The Visitor Center's educational programs introduce kids to the living wonders of the marine sanctuary in our own backyard. Kids will participate in hands-on activities such as: holding the baleen of a blue whale, feeding a giant green anemone, touching the pelt of a sea otter and feeling the saw-like teeth of a white shark. Hands-on activities create an intimate experience with our marine world that promotes learning and understanding, appreciation and underscores the importance of our protected marine sanctuaries.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	UCSD - Upward Bound Math & Science	STEM Inventory	Entry# 108
Org-Type	Higher-Education-based		
Lead	UC San Diego	PoC	N/A
PoC-Phone	858-822-4140	PoC-Email	UBMS@ucsd.edu
Address			
URL			
Service-Region	San Diego County		
Type	Student Program		
Subjects	General Science|Math		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The UCSD - Upward Bound Math & Science provides positive math and science experiences to students who are low-income or who will be the first generation in their family to attend college. These experiences will come in the form of year-round activities including, but not limited to, a summer residential experience at the UCSD campus, science-related field trips and or seminars where students wi meet and see scientists in action, school-year tutoring, mentorship, and five weeks of living on the campus at UCSD in the summer studying college-prep and college-level math, science, English, computer science, and foreign language. UCSD UBMS is offered in San Diego County at: Clairemont High, El Cajon Valley High, Castle Park High and Monte Vista High, and in Imperial County at: Brawley Union High, Calipatria High, and Central Union High.		
Outcomes	The Upward Bound Math and Science Program (UBMS) at UCSD aims to generate the skills and motivation necessary for high school students to succeed in attending college and pursuing a career in math and science.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Research Experiences in Math for	STEM Inventory	Entry# 109
Org-Type	Higher-Education-based		
Lead	California State University, Chico	PoC	Dr. Sergei Fomin
PoC-Phone	530-898-5274	PoC-Email	SFomin@csuchico.edu
Address			
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources		
Subjects	Math		
Level	High School (9-12th grade)|Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The REU/RET in mathematics at California State University, Chico targets secondary teachers with a strong interest in mathematics or statistics and undergraduates students who have completed their junior year. For six weeks of each summer, twelve participants, including three teachers, will work in three research teams on problems selected from Dynamic Geometry, Knot Theory, Mathematics Education, Mathematical Modeling, and Number Theory. Depending on the field, projects may be appropriate for students from scientific disciplines other than mathematics.		
Outcomes	The research experience is intended to give participants an appreciation for the breadth and depth of mathematics and its applications while providing undergraduates an opportunity to improve their communication skills and providing in-service teachers an experience which will deepen their understanding of mathematical content and inspire pedagogical innovation in their classrooms. By working on open problems in mathematics, participants will experience the excitement of exploration, discovery, analysis, proof, and systematization that are part of the mathematician's world. While much of mathematics is accessible only after years of study, the fiel is rich enough to allow for a fuller mathematical experience at the undergraduate level.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Summer Research Program	STEM Inventory	Entry# 110
Org-Type	Higher-Education-based		
Lead	UC Santa Barbara	PoC	N/A
PoC-Phone	N/A	PoC-Email	mbueno@math.ucsb.edu
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Math|Other		
Level	Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The UCSB Summer Research Program for Undergraduates offers upper division undergraduate students and entering graduate student with outstanding academic potential the opportunity to work closely with faculty mentors on math research projects for six weeks. Th program has been designed for students who wish to learn more about the research experience and possibly pursue an academic career in teaching and research. Each student participant will be working individually or in a small group with a faculty mentor in one c the proposed research projects.		
Outcomes	The program aims to inspire students to consider a career in teaching and research.		
Started		Funded-Through	
Length		Cost	
Primary-Funding	Foundation	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	This program is financially supported by the Educational Advancement Foundation		

Program-Title	Summer Camp		STEM Inventory	Entry#	111
Org-Type	Non-Profit-based				
Lead	California Science Center	PoC	Education Department		
PoC-Phone	213-744-7444	PoC-Email	4info@cscmail.org		
Address	700 State Drive Los Angeles, CA 90037				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	The California Science Center offers science-rich, fun-filled experiences in our week-long day camps for children in pre-school through 8th grade. Choose from over 25 classes including Wizard Science, Fantastic Physics, Skate Science and many more. Concoct oozing slime, explore the insides of a squid and build a skateboard—all in the name of science! These are just a few of the exciting activities offered in more than 25 courses at the California Science Center's Hands-On Science Camp. This summer, explore physics, chemistry, biology, space and the earth in diverse classes that take advantage of the Science Center's unique, state-of-the-art resources. Hands-On Science Camp takes place in and around the Wallis Annenberg Building for Science Learning and Innovation, housing cutting-edge classrooms and labs. Campers will do science in a modern environment that includes the 32,000 sq. ft. Big Lab with its large-scale experiment platforms designed for maximum hands-on investigation. Roll up your sleeves and discover something new in Hands-On Science Camp.					
Outcomes	Kids participating in the program will experience science in many forms, the many subjects that we offer will allow kids to choose an area that interests them the most and explore the science in that area. There are more than 25 courses that are offered by the program and from the experience of previous campers it looks like the kids had a lot of fun. With so many interesting topics, learning is made easier through subjects kids are fond of.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	PCC - Upward Bound Math/Science	STEM Inventory	Entry# 112
Org-Type	Higher-Education-based		
Lead	Pasadena City College	PoC	N/A
PoC-Phone	626-585-3114	PoC-Email	N/A
Address	U207 1570 E. Colorado Blvd., Pasadena CA 91106		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	Economically disadvantaged
Content	Upward Bound Math/Science is a pre-college program designed to encourage scholars, from low-income families and/or whose parents did not graduate from a four-year college , to develop the skills and motivation necessary for success in college and beyond. Program services include: summer programs with intensive math and science training; year-round counseling and advisement; exposure to university faculty members who do research in mathematics and the sciences; computer training; and participant-conducted scientific research under the guidance of faculty members or graduate students, who are serving as mentors.		
Outcomes	The program is designed to strengthen the math and science skills of participating students. The goal of the program is to help student recognize and develop their potential to excel in math and science and to encourage them to pursue postsecondary degrees in math and science.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Upward Bound Math/Science is a pre-college program funded by the U.S. Department of Education.		

Program-Title	Aerosummer		STEM Inventory	Entry#	113
Org-Type	Non-Profit-based				
Lead	San Diego Air & Space Museum	PoC	Education Department		
PoC-Phone	619-234-8291, ext.19	PoC-Email	N/A		
Address	2001 Pan American Plaza Balboa Park San Diego, CA 92101				
URL					
Service-Region	San Diego County				
Type	Student Program				
Subjects	General Science|Math|Chemistry|Space|Computer Science|Engineering|Technology|Other				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Aerosummer program allows kids who are looking for something to do in the summer to participate in a summer camp. The San Diego Aerospace Museum currently offers nine different summer camps and are scheduled to be spaced throughout summer so that no two programs overlap. Below are three summer camps that the museum offers. Silent Flight Grades 3 - 4 July 9 - 13, Balboa Park Students try out different kite designs, build hot-air balloons, and experiment with gliders as they investigate ways of traveling on the wind. Second Stage Grades 6-12 July 30 - Aug. 3, Balboa Park An advanced rocketry program for students familiar with model rocketry Students construct individual rockets and work in teams to build a multi-stage rocket. Aviation Simulations - SECOND DATE ADDED DU TO DEMAND Grades 5-12 Aug 6-10, Balboa Park Finally, computer games used for education. Students will learn the basic of flight, navigation, and instrumentation while testing their skills on computer simulators. Additional simulators will be used throughout the week along with instruction by actual pilots. Great for the future pilot!				
Outcomes	The program allows kids who have free time in the summer to do interesting things that relate to aviation and space.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	The program has great potential to be a best practice, it allows kids to do fun things in an environment where they will also get a lot of learning. By combining fun and interesting activites with learning it is bound to a best practice.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Museum / Afterschool Program Classes		STEM Inventory	Entry#	114

Org-Type	Non-Profit-based		
Lead	San Diego Air & Space Museum	PoC	Education Department
PoC-Phone	619-234-8291, Ext 19	PoC-Email	N/A
Address	2001 Pan American Plaza Balboa Park San Diego, CA 92101		
URL			
Service-Region	San Diego County		
Type	Student Program		
Subjects	General Science|Math|Engineering		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	The museum outreach program consists of classes on many topics of aviation and space. The classes are offered at the museum and at the public schools in the San Diego area. More information about the program is listed below. Several topics of the museum classes are: Aerodynamics with Paper Airplanes, Aerospace Heritage Program, Aquarockets, Aviation Art, Balloon Builders, International Space Station, Rocket Science for Real, Space Capsule Challenge. Topics for the afterschool program classes: Awesome Aerodynamics I, Foam and Balsa Gliders, Foam Flyers, International Space Station, Puff Gliders. Through the program students will be able to build and fly paper airplanes, foam and balsa gliders, build and launch model rockets, hot air balloons, and many more exciting things.		
Outcomes	The program hopes to get students involved in science, specifically in the area of aviation and space because it is an area of great opportunities.		

Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	University Nanosatellite Program (UNP)	STEM Inventory	Entry# 115
Org-Type	Professional Association-based|Non-Profit-based|Government-based		
Lead	AFRL/VS, AFOSR, AIAA	PoC	N/A
PoC-Phone	N/A	PoC-Email	nanosat@kirtland.af.mil
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Space|Engineering|Technology		
Level	Undergraduate		
Other-Objectives	The main focus of this program is small satellite research and development.		
Served-per-Year		Demographics	
Content	The Nanosat Program has two distinct stages. The first stage is a Nanosat design and protoflight build phase, which lasts approximately two years and culminates in the AIAA Student Satellite Flight Competition Review (FCR). All universities are partially funded by the AFR and construct a protoflight Nanosat while participating in various design reviews and program-sponsored hands-on activities and workshops throughout the two-year period. All universities are evaluated based on several criteria, including Student Participation/Education, Technical Relevance/Excellence, and Flyability (meaning that the hardware adheres to strict quality assurance and spaceflight qualification practices). FCR judges are a distinguished panel of government and industry professionals. The second stage of the Program begins after the Nanosat is selected for flight integration and test via the Flight Competition Review at the end of the two year competition period. The university-built flight Nanosat is expected to be flight-ready (standards for spaceflight hardware and associated documentation has been tracked through a rigorous quality and configuration management process) and delivered to AFRL immediately following the FCR. This second phase consists of accelerated integration with a separation system and environmental test of the protoflight Nanosat in the months following FCR, and culminates in a potential launch opportunity.		
Outcomes	The objectives of the program are to educate and train the future workforce through a national student satellite design and fabrication competition and to enable small satellite research and development (R&D), payload development, integration, and flight test.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Summer Program For Operations Research	STEM Inventory	Entry# 116
Org-Type	Government-based		
Lead	National Security Agency (NSA)	PoC	N/A
PoC-Phone	1-800-688-6115	PoC-Email	N/A
Address	9800 Savage Road, Suite 6678, Ft. George G. Meade MD 20755		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Math|Computer Science|Engineering		
Level	Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Summer Program for Operations Research Technology is a 12-week internship for graduate students enrolled in an M.S. or Ph.D. program who have experience with computer programming languages. The goal of this program is to offer top graduate students, who have highly developed operations research skills, an opportunity to apply their knowledge in the professional atmosphere of one of the most advanced intelligence settings in the world. Particular areas of technical interest include: Operations Research, Modeling and Simulation, Industrial Engineering, Optimization, Mathematical Programming, Probability and Statistics, and Management Science.		
Outcomes	At NSA you will further develop your technical skills. As an apprentice to Operations Research and Modeling and Simulation Analysts at NSA, you'll learn how to apply scientific and quantitative methods to develop innovative solutions to unconventional problems using state-of-the-art computer facilities.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Graduate Mathematics Program (GMP)	STEM Inventory	Entry# 117
Org-Type	Government-based		
Lead	National Security Agency (NSA)	PoC	N/A
PoC-Phone	301-688-0983	PoC-Email	math@NSA.gov
Address	9800 Savage Road, Suite 6515, Ft. George G. Meade MD 20755		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Math		
Level	Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Graduate Mathematics Program (GMP) is a highly competitive program for exceptional graduate mathematics students. It is a 12-week paid work assignment that runs from the end of May through the middle of August. This program provides students with the opportunity to work directly with NSA mathematicians on missions-critical problems and experience the excitement of the NSA mathematics community first hand. Applicants must be currently enrolled in a mathematical graduate program where he or she has demonstrated superior mathematical aptitude and problem-solving skills. Evidence of successful work on an independent project in pure or applied mathematics or computer science is desirable. Applicants may be at any stage in their graduate careers and working, o intending to work, in any area of mathematics. Computer programming experience, especially C or C++, is desirable. State-of-the-art computing resources are available to GMP participants, as well as computational software packages, such as MATHEMATICA, MATHLAB, MAGMA, MAPLE, and SPLUS.		
Outcomes	In our Graduate Mathematics Program (GMP) you'll collaborate with top mathematicians in the country, solving problems critical to the success of our missions. You'll have the opportunity to learn and develop cryptomathematical theory and to apply the theory to operational problems.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Mathematics Summer Employment Program	STEM Inventory	Entry# 118
Org-Type	Government-based		
Lead	National Security Agency (NSA)	PoC	N/A
PoC-Phone	301-688-0689	PoC-Email	math@NSA.gov
Address	9800 Savage Road, Suite 6515, Ft. George G. Meade MD 20755		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Math		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Mathematics Summer Employment Program runs from the end of May through the middle of August and is open to students majoring in Mathematics. Computer Science majors with either a minor in math or a strong math curriculum may also apply. These programs afford the opportunity to "earn while you learn" by providing hands-on experience during a 12-week paid work assignment. Assignments are based on the student's experience and academic status. These intense 12-week programs give the brightest math students in America's colleges and universities the chance to put their problem-solving skills to the test and receive valuable work experience at the same time. Students participating in the programs have the opportunity to learn and develop cryptomathematical theory and to apply the theory to operational problems.		
Outcomes	As an MSEP participant, you will develop a deep understanding of the vital role that mathematics plays in assisting NSA tackle a diverse set of technical challenges. You'll also experience firsthand the excitement of working on mathematics problems of national importance. If you possess imagination, initiative, and intellectual curiosity, apply for the MSEP.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Summer Undergraduate Research Fellowship	STEM Inventory		Entry#	119
Org-Type	Non-Profit-based				
Lead	National Institute of Standards and Technology	PoC	Anita Sweigert		
PoC-Phone	301-975-4200	PoC-Email	sweigert@nist.gov		
Address	100 Bureau Dr., Stop 8400, Gaithersburg MD 20899				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Chemistry|Physics|Engineering|Technology				
Level	Undergraduate				
Other-Objectives					
Served-per-Year	100	Demographics			
Content	The Summer Undergraduate Research Fellowship (SURF) program is 12 weeks long, during that time students will contribute to ongoing research projects under the guidance of a NIST scientist or engineer from one of the Institute's seven major laboratories (Building and Fire Research, Chemical Science and Technology, Electronics and Electrical Engineering, Information Technology, Manufacturing Engineering, Materials Science & Engineering , and Physics). The Summer Undergraduate Research Fellowship (SURF) program is for students majoring in science, mathematics and engineering. Note that applications for participation in the SURF prograr are only accepted from colleges or universities, and not from individual students. Please prepare a single proposal from your institutio to the NIST SURF program. This proposal, using the forms provided, will include a portion completed by an institutional representative and a set of materials provided by each student applicant.					
Outcomes	Students who participate in the program get to work with the world's best researchers, gain valuable hands-on experience and work with the latest cutting-edge technology. Students will undoubtedly learn much more about one of the seven fields that we offer: Building and Fire Research, Chemical Science and Technology, Electronics and Electrical Engineering, Information Technology, Manufacturing Engineering, Materials Science & Engineering , and Physics.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Foundation	Primary-$	SURF students receive stipend, and housing and travel allotments (as needed). Funding for students comes via a federal grant issued to the school from NIST. Students who complete the full 11 week program will receive a $4,000 stipend. Students that can no		
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	From a student who has graduated from our program: "This summer at NIST is going to look really wonderful on the resume and in the whole application process... There's a lot of prestige that goes with working as an undergraduate at the National Institute of Standards and Technology" - SURF Grad				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	National Science Foundation (NSF)				

Program-Title	Summer Research Experience for	STEM Inventory		Entry#	120
Org-Type	Non-Profit-based				
Lead	SETI Institute	PoC	Dr. Cynthia Phillips		
PoC-Phone	650-810-0230	PoC-Email	phillips@seti.org		
Address	515 N. Whisman Road Mountain View, CA 94043				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Biology|Space|Environmental Science				
Level	Undergraduate				
Other-Objectives					
Served-per-Year		Demographics			
Content	The SETI Institute invites you to apply for a summer Research Experience for Undergraduates program for highly motivated students interested in astrobiology research. You will work with scientists at the SETI Institute and at the nearby NASA Ames Research Center or projects spanning the field of astrobiology.				
Outcomes					
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	NASA				

Program-Title	NOAA's Teacher at Sea Program	STEM Inventory	Entry# 122
Org-Type	Government-based		
Lead	National Oceanic and Atmospheric Administration (NOAA)	PoC	Jennifer Hammond, Education and Teacher at Sea Program Manager
PoC-Phone	301-713-7610	PoC-Email	jennifer.hammond@noaa.gov
Address	8403 Colesville Road, Suite 500, Silver Spring MD 20910		
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers|Resources		
Subjects	Environmental Science		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	Since its inception in 1990, the Teacher at Sea Program has enabled more than 460 teachers to gain first-hand experience of science and life at sea. By participating in this program, it becomes possible for teachers to enrich their classroom curricula with a depth of understanding made possible by living and working side-by-side, day and night, with those who contribute to the world's body of oceanic and atmospheric scientific knowledge. If you're ready for a life-enriching adventure that will benefit you, your students, and your community you could be our next Teacher at Sea!		
Outcomes	The Teacher at Sea Program aims to give teachers a clearer insight into our ocean planet, a greater understanding of maritime work and studies, and to increase their level of environmental literacy by fostering an interdisciplinary research experience. The program provides a unique environment for learning and teaching by sending kindergarten through college-level teachers to sea aboard NOAA research and survey ships to work under the tutelage of scientists and crew. Then, armed with new understanding and experience, teachers bring this knowledge back to their classrooms. Indeed, the greatest payoff of NOAA's Teacher at Sea program is the enthusiasm for learning more about our ocean planet generated between teachers and students.		
Started	1990	Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	The feedback from teachers who have participated in the program is overwhelmingly positive. By talking about their experiences and sharing photos or video taken during a cruise, teachers can ecourage their students to consider potential marine careers with NOAA or other science-based organizations. Teachers underscore the fact that not only do they themselves benefit from what they learn on their cruises, but so do their students, communities, and the environment in general.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Reduced Gravity Student Flight Opportunities	STEM Inventory	Entry# 123
Org-Type	Government-based		
Lead	NASA	PoC	Dominic Delrosso
PoC-Phone	281-244-9113	PoC-Email	dominic.l.delrosso@nasa.gov
Address	Ellington Field, Bldg. 993, Houston TX 77034		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Physics|Space|Engineering|Technology		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Reduced Gravity Student Flight Opportunities Program provides a unique academic experience for undergraduate students to successfully propose, design, fabricate, fly and evaluate a reduced gravity experiment of their choice over the course of six months. Th overall experience includes scientific research, hands-on experimental design, test operations and educational/public outreach activities. The reduced gravity aircraft generally flies 30 parabolic maneuvers over the Gulf of Mexico. This parabolic pattern provides about 30 seconds of hypergravity (about 1.8G-2G) as the plane climbs to the top of the parabola. Once the plane starts to “nose over” the top of the parabola to descend toward Earth, the plane experiences about 25 seconds of microgravity (0G). At the very top and bottom of the parabola, flyers experience a mix of partial G's between 0 and 1.8 (called “dirty air”).		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	MATHCOUNTS
Org-Type	Non-Profit-based
Lead	MATHCOUNTS
PoC	N/A
PoC-Phone	703-299-9006
PoC-Email	info@mathcounts.org
Address	1420 King Street, Alexandria CA 22314
URL	
Service-Region	Nationwide
Type	Student Program
Subjects	Math
Level	Middle School (5-8th grade)
Other-Objectives	
Served-per-Year	
Demographics	
Content	MATHCOUNTS is a national enrichment, coaching and competition program that promotes middle school mathematics achievement through grassroots involvement in every U.S. state and territory. Currently celebrating our 25th anniversary, MATHCOUNTS is one of the country's largest and most successful education partnerships involving volunteers, educators, industry sponsors and students. President George W. Bush and former Presidents Clinton, Bush and Reagan have all recognized MATHCOUNTS in White House ceremonies. The MATHCOUNTS program has also received two White House citations as an outstanding private sector initiative. Particularly exciting for our Mathletes® were the hour-long ESPN programs on each of the National Competitions from 2003-2005.
Outcomes	The mission of MATHCOUNTS is to increase enthusiasm for and enhance achievement in middle school mathematics throughout the United States. With the generous support of all MATHCOUNTS sponsors and volunteers, and leadership of the National Society of Professional Engineers at the local and state levels, MATHCOUNTS is providing today’s students with the foundation for success in science, technology, engineering or mathematics careers.
Started	
Funded-Through	
Length	Ongoing
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	The National Sponsors are Lockheed Martin, Raytheon Company, Texas Instruments Incorporated, Northrop Grumman Foundation, National Society of Professional Engineers, 3M Foundation, General Motors Foundation, CNA Foundation and National Aeronautics an Space Administration.
How-Assessed	
Best-Practice-Why	Below are several reasons why MATHCOUNTS is a great program: MATHCOUNTS motivates and rewards students by fostering teamwork and a competitive spirit. MATHCOUNTS is more than a competition. It involves students and teachers in year-long coaching sessions and helps students at all levels improve their problem-solving skills. MATHCOUNTS builds math skills, promotes logical thinking and sharpens students' analytical abilities. MATHCOUNTS provides America's middle school teachers with creative, state-of-the-art curriculum materials, free of charge. MATHCOUNTS introduces students to math-related careers through contacts with engineers and other professionals who serve as volunteers. MATHCOUNTS is educator-driven. Materials and activities are structured t meet student needs, as identified by educators. Members of the National Council of Teachers of Mathematics (NCTM) develop these materials in accordance with NCTM curriculum standards.
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	National Council of Teachers of Mathematics NASA Lockheed Martin Raytheon Company Texas Instruments Incorporated Northrop Grumman Foundation National Society of Professional Engineers 3M Foundation General Motors Foundation CNA Foundation

Program-Title	Imagine Mars		STEM Inventory	Entry#	125
Org-Type	Government-based				
Lead	NASA	PoC	N/A		
PoC-Phone	N/A	PoC-Email	ImagineMars@jpl.nasa.gov		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Space|Technology				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Imagine Mars Project is a national arts, sciences, and technology education initiative that leads students to work together with scientists, engineers, artists, and civic leaders to design and share a futuristic Mars community for 100 people. How do we participate? Participation can be as simple or as complex as you want it to be. You can design your own project, or use the lesson plans and project ideas on the site to customize a project that is just right for your students and timeframe. NASA works with you to put it all together, and connects you with scientists, engineers, artists, and experts in your community. Whether you're an after-school project leader or a formal education teacher, Imagine Mars will not only stretch your students' imaginations, but their view of their community, their planet, their universe, and most importantly, their potential.				
Outcomes	Students explore their home community and decide what cultural, scientific and artistic elements are important to a community's success. They discover the extreme martian environment and imagine what life might be like on the red planet. Finally, they create a project that artistically reflects their knowledge of Mars, understanding of community, and hopes for the future. Students share their finished project by posting it in the online gallery.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding	The Imagine Mars Project is co-sponsored by NASA and the National Endowment for the Arts.				
How-Assessed					
Best-Practice-Why	When the project concluded at the beginning of the new century, it exceeded all expectations and demonstrated the creativity that could be unleashed through an interdisciplinary educational program. Hundreds of thousands of students from around the world explored their communities to determine what would be important on Mars, and then developed their ideal community from a perspective of arts, sciences and technology. Teams of students launched rockets, painted murals, composed operas, built architectura models and engaged in countless other activities to celebrate and describe their vision of the future.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	National Endowment for the Arts Extensive list: http://imaginemars.jpl.nasa.gov/about/organizations.html				

Program-Title	Columbia Memorial Space Science Learning	STEM Inventory		Entry#	126
Org-Type	Non-Profit-based				
Lead	Columbia Memorial Space Science Learning Center	PoC	N/A		
PoC-Phone	562-904-7286	PoC-Email	spomrehn@downeyca.org		
Address	11111 Brookshire Avenue, Downey CA 90241				
URL					
Service-Region	Southern California				
Type	Professional Development for Teachers|Student Program|Lesson Plan				
Subjects	General Science|Math|Space|Engineering|Technology				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	While planning for the learning center is still in early stages, the following are some of the components that visitors to the learning center may find. A Challenger Learning Center, featuring an exciting simulated space mission. Students will work in teams at Mission Control and aboard a Space Station as they test their decision-making skills, solve problems and communicate by alternative means during this innovative space-themed science and math lesson. Teachers will use both pre- and post-flight activities that integrate the experience into traditional classroom instruction. At the Space Science Discovery Zone, visitors will find a variety of interactive exhibits that help them explore subjects such as the principles of flight, living in space, the search for life beyond earth, and the origins of the universe. The Mars Robotics Lab will allow young visitors the opportunity to design and program their own robots in order to complete a remote exploration mission to the planet Mars. Aerospace Resource Center and Research Library: In conjunction with the Aerospace Legacy Foundation. We are currently cataloging hundreds of artifacts and records left in place at the former NASA site. These will become the core of a research archive which will specialize in the history of aviation and aerospace development at the Downey site. An oral history project is also planned to help capture a historical perspective based on personal experiences of those who worked at the site. Historical Displays will help to tell the story of the men and women who contributed to the spirit of invention and innovation that drove the development of the aviation and aerospace in Downey, Southern California, and beyond.					
Outcomes	The program aims to educate and inspire students to take interest in science and math, by means of using a space-theme to capture their minds. At the Learning Center students will also be able to design and program robots that will further build their interest in science and math. When the Learning Center is finally completed there will have more projects/programs to inform and influence students in pursuing science and technology.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Donations	Primary-$			
Materials					
Other-Funding	NASA, City of Downey, and the Financial Partners Credit Union are the main funders.				
How-Assessed					
Best-Practice-Why					
Promising-Practice	The advisory committee envisions the space center to be something like this: "When the Space Science Learning Center in Downey opens on the 160-acre former Boeing/NASA site development, it will serve people of all ages and will be recognized as an important regional and national center of learning. It will operate as a division of the Department of Community Services of the City of Downey (City), and [will be] assisted in its fundraising and marketing activities by a nonprofit organization." "Educational programs will contribute to a more scientifically and technologically literate citizenry, and exhibits will commemorate the history of the aerospace industry in Downey. The Learning Center will symbolize the multi-faceted science and technology learning activities conducted in the building and via distance learning throughout the United States and the world." "The Learning Center will be a popular meeting place for social and business groups and will be utilized throughout the day and into the evening by youth, educators, families, and community members participating in educational and public programs and activities."				
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Los Angeles County Office of Education NASA NASA JPL Aerospace Legacy Foundation (ALF)				

Program-Title	NASA Academy	STEM Inventory	Entry# 127
Org-Type	Government-based		
Lead	NASA	PoC	David Rosage
PoC-Phone	301-286-0904	PoC-Email	David.Rosage@gsfc.nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Biology|Math|Chemistry|Physics|Earth Science|Space|Engineering|Technology		
Level	Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	NASA Academy represents an immersive and integrated multidisciplinary exposure and training, for students with various backgrounds and career aspirations of critical importance to the National aerospace program. The academic curriculum balances opportunities for direct contact with advanced science and engineering R&D and an awareness of the complex managerial, political, financial, social, and human issues faced by the current and future aerospace programs Co-sponsorship of the Academy assures recruitment of meritorious students from previously under-represented areas of the country, into leadership positions for the aerospace programs of the future. The Academy is cost effective, providing a richer program at a cost comparable to other, narrow-focus scholarships, internships, and fellowships.		
Outcomes	The objectives of the program are: 1) To support and enhance the general objectives and mission of NASA. 2) To make available to the selected students guided access to extensive resources at the participating NASA Research and Space Flight Centers and their infrastructure, science, technology, and organizational and managerial expertise. 3) To provide a unique, intensive, and rigorous educational and training curriculum related to the organization of NASA, its in-house science and technology projects, its collaboration with other National centers, industry, and academia, and its extensive technology transfer programs. 4) To facilitate access to, and dissemination of valuable information on career development paths, financial support, technical writing standards, intellectual property, etc. 5) To create an environment that fosters creativity, personal initiative, and leadership qualities, together with group mentality, teamwork, and professional ethics.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	In its first 9 years, 336 Research Associates have graduated from Academy programs at the Goddard Space Flight Center (GSFC), Ames Research Center (ARC), Marshall Space Flight Center (MSFC), and Dryden Flight Research Center (DFRC). Those students graduating from the program received a national education, training, and research resource dedicated to promoting current and future opportunities for innovation and leadership in aerospace-related careers.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Children's Educational Outreach Program		STEM Inventory	Entry#	128
Org-Type	Non-Profit-based				
Lead	Exploratorium	PoC	N/A		
PoC-Phone	415-561-0360	PoC-Email	N/A		
Address	3601 Lyon Street San Francisco, CA 94123				
URL					
Service-Region	Bay Area				
Type	Student Program				
Subjects	General Science				
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	The Children's Educational Outreach Program is a major link between the Exploratorium and community-based organizations in San Francisco and Oakland which serve inner city children, teens, and their families. The Outreach Program offers Exploratorium exhibit-based educational activities via ongoing partnerships with these organizations. We go out to the neighborhoods on a regular basis as well as inviting participants to the Exploratorium for special field trips and, in some cases, extended study. Staffing for Children's Educational Outreach consists of a program director, a project manager, a lead teacher, and on-call staff from the High School Explainer Program. In our workshops and activities, we use a variety of hands-on materials as well as Exploratorium Lending Library exhibits and kits, Exploratorium Snackbook* exhibits, and our own modified, portable versions of exhibits. In the last few years, emphasis has been on children constructing larger, more complex projects. Children are trained to use hand tools and simple machinery, and learn how to wire circuits. They build zoetropes, wind chimes, spectroscopes, kaleidoscopes, toy cars, mechanical insects, robot arms, kites, membranophones, and much more. Art is also integral to most of the science we do. Viewing phenomena from an artist's perspective, or simply incorporating an artistic element into our projects, makes science more personal and relevant for a young person. Another important component of Children's Educational Outreach is the young, ethnically and culturally diverse staff. We have found that role modeling is extremely effective in reaching youngsters who have been underrepresented in the fields of science and math. All of these workshops and services are provided free of charge.					
Outcomes	To promote the growth of inner city kids in developing an interest in science and math.				
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	The program has been going on since 1984 and involves several organizations around the Bay Area and all the workshops and services are provided free of charge. It allows inner city children to get more exposure to the more unconventional side of science and thus maybe acquire enthusiasm about the subject itself.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Goddard Space Flight Center Robotics	STEM Inventory	Entry# 129
Org-Type	Government-based		
Lead	NASA	PoC	David Rosage
PoC-Phone	301-286-0904	PoC-Email	David.J.Rosage@nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Robotics		
Level	Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	he NASA Robotics Internship Program is an intensive resident summer program of higher learning for college undergraduate and graduate students interested in pursuing professional and leadership careers in robotics fields. The goal of the Robotics program is to provide an avenue for students to participate in challenging and inspiring projects at the frontiers of robotics research being conducte at NASA, academic institutions, and industry. Thus, besides attending lectures and workshops, you will be involved in supervised research in GSFC laboratories, and will participate in visits to other NASA Centers and facilities, the Applied Physics Laboratory, and a number of robotics-related academic laboratories and industries.		
Outcomes	Outcomes-Generated: The objectives of the NASA Robotics Program at GSFC are: * To identify, inspire, and develop future robotics specialists with emphasis on supporting Lunar Exploration and the 21st Century Explorer. * To provide an opportunity for participants to contribute to research in a world-class, robotics-related laboratory. * To provide a unique, intensive, and rigorous educational and training curriculum on NASA, its in-house robotics projects, its collaboration with other National centers, industry, and academia, and its extensive technology-transfer programs.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	The ATLAS Program		STEM Inventory	Entry#	130
Org-Type	Higher-Education-based				
Lead	Johns Hopkins University	PoC	Gwen Boyd, Executive Assistant to the Chief of Staff		
PoC-Phone	443-778-6031	PoC-Email	N/A		
Address					
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Engineering				
Level	Undergraduate|Graduate				
Other-Objectives	Demographic-Served: HBCUs, HSIs				
Served-per-Year		Demographics	Other		
Content	If you're a college junior majoring in engineering or computer science--with a strong academic record--and would like to strengthen your preparation for a technical career, ATLAS is designed for you. This highly competitive 12-week program focuses on technology leadership development. The ATLAS SCHOLARS Summer Intern Program is offered to well-qualified, highly motivated undergraduates attending Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), and Minority Institutions who have an interest in applied scientific research. Research In Your Field: You'll be teamed with a staff scientist or engineer who is conducting research or program evaluation in your academic major who has volunteered to be a mentor. You'll have the chance to demonstrate your academic talents and hone your problem-solving skills and techniques while helping to solve to critical problems affecting the nation. Professional Growth: You'll attend professional development seminars that help you learn how to operate effectively in professional and business environments. The content includes interpersonal skill development, interviewing, and resume preparation. As an intern you'll do APL facility tours and brown-bag-lunch presentations, but ATLAS scholars have additional opportunities. Compensation: ATLAS scholars receive full-time summer intern salaries, including standard holidays. Round-trip travel expenses to APL are provided. APL also helps students secure housing for the program's duration.					
Outcomes	The program aims to build your leadership skills and teach how to make the most of your assets. You'll practice successful communication skills such as technical writing, public speaking, presentations, and projection of ideas and opportunities. Our goal is to help students understand and appreciate their own aptitude, to grow personally and professionally, and to envision their future careers.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Education Associates Program	STEM Inventory	Entry# 131
Org-Type	Government-based		
Lead	NASA	PoC	N/A
PoC-Phone	650-604-2987	PoC-Email	eaprogram@mail.arc.nasa.gov
Address			
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources		
Subjects	Space|Engineering|Technology		
Level	Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	NASA's Education Associates program offers college and university students and faculty the opportunity to experience science and technology in the unique environment of NASA. It will be a hands-on experience at a NASA center working with NASA scientists, engineers and program managers on a NASA project. The projects will run the gambit of NASA's missions -- from the space shuttle to exploring the solar system, from exploring extreme environments on earth to research aircraft. In every case, it will be an opportunity to apply classroom theory to real-world problems -- making science relevant, exciting and fun. The program also affords students with the opportunity to explore themselves and consider their futures. At the same time, NASA project leaders capture the benefits of curious minds and eager hands of these students. Perhaps the biggest benefit is that the nation will reap the benefit of a larger and better trained cadre of scientists and engineers for the future. Outcomes-Generated: The objectives of the cooperative program are tc *Help address the national need for future scientists and engineers; *Provide NASA with a way to tap the talents of students and faculty at universities; *Provide students and faculty the chance to experience NASA; and *Provide colleges and universities with associated partnership benefits.		
Outcomes	Education Associates can work on literally any project at NASA from the full spectrum of the NASA's Missions: *Space Shuttle and International Space Station *Looking at the Earth *Exploring our Solar System *Space Science & Technology *Deep Space Missions *Research Aircraft		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	Some 600 Education Associates (EAs) have participated in the program working with over 250 sponsors and untold numbers of other NASA personnel. The EAs come from 119 different colleges and universities from across the nation. Nearly 10% of the participants hav taken jobs with NASA or NASA contractors as a direct result of their experience. As one person at NASA headquarters recently said, "Education Associates is the best human capital program we have."		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	NASA		

Program-Title	NASA Undergraduate Student Research	STEM Inventory	Entry# 132
Org-Type	Government-based		
Lead	NASA	PoC	N/A
PoC-Phone	N/A	PoC-Email	vsgc@odu.edu
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Math|Earth Science|Computer Science|Technology		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The NASA Undergraduate Student Research Program (NASA-USRP) offers undergraduate students across the United States research experiences at NASA Centers. Students may apply for a 10-week summer session or a 15-week spring or fall session. Eligible fields of study are academic majors or demonstrated coursework concentration in engineering, mathematics, computer science or physical/life sciences. At the end of the the session students must submit a paper on their NASA-USRP research experience. Students may also be asked to discuss their research in public forums and/or participate in NASA-sponsored colloquia, workshops and technology demonstrations.		
Outcomes	The purpose of the NASA-USRP is three-fold: · To extend and strengthen NASA's commitment to educational excellence and university research, highlighting the critical need to increase the Nation's undergraduate and graduate science, engineering, mathematics, and technology skill base. · To build a national program bridge – from existing NASA K-12 Education Program activities to NASA Higher Education Program options – that encourages and facilitates student interest in future professional opportunities with NASA and its partner organizations. Such opportunities might include NASA career employment, temporary assignment, undergraduate and graduate co-op appointment, Space Grant scholarships and fellowships, or contractor positions. · To attract undergraduate students from the widest array of backgrounds, who are fully representative of America's racial, ethnic, and cultural diversity and to provide them with hands-on, challenging research experiences that stimulate continued student interest in the fields/disciplines aligned with NASA's research and development mission.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	The program offers students a chance to see what researchers do at NASA centers. Upon attending the session students will develop a greater skill base and gain a strong technical foundation, through which leadership potential can develop among an academically strong and diverse student population.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Regolith Excavation Centennial Challenge	STEM Inventory	Entry# 133
Org-Type	Government-based		
Lead	NASA	PoC	Matt Everingham
PoC-Phone	N/A	PoC-Email	matt.everingham@californiaspaceauthority.org
Address	3201 Airpark Drive Suite 204 Santa Maria, CA 93455		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Physics|Space|Engineering|Robotics|Technology		
Level	High School (9-12th grade)|Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The Regolith Excavation Challenge promotes the development of new technologies to excavate lunar regolith. Excavation is a necessar first step towards lunar resource utilization, and the unique physical properties of lunar regolith make excavation a difficult technical challenge. Advances in lunar regolith extraction have the potential to contribute significantly to the nation's space exploration operations. Teams competing in the Regolith Excavation Challenge will build autonomously operating systems to excavate lunar regolith and deliver it to a collector. Due to the moon's lack of atmosphere, it is completely exposed to impact with micrometeorites and space weather (such as solar wind and radiation). The geology of the moon has been shaped not by water, wind, and volcanic processes as on the earth, but predominantly by its exposure to the space environment. This results in a highly compacted surface soil with interlocking particles. The resulting high resistance to penetration and BLOCKING properties make excavation a special challenge on the lunar surface. The unique properties of lunar regolith coupled with the weight, power and time limitations imposed by interplanetary travel make lunar excavation a unique challenge, which is as of yet unmet by excavation technologies developed for terrestrial use. The systems designed to excavate lunar regolith will need to be lighter, more power efficient and able to operate autonomously in order to be effective in a real lunar mission scenario. Current excavation technologies are very heavy, use large amounts of power, and require human operators. In order to facilitate in-situ lunar resource utilization, significant technology development is needed. The Regolith Excavation Challenge is intended to encourage competitors to expand the design envelope beyond what is possible with existing excavation systems.		
Outcomes	The Regolith Excavation Challenge can help the nation's space exploration program by contributing insightful solutions to problems faced during regolith excavation. The challenge will also help to find novel and lower-cost solutions to engineering obstacles in civil space and aeronautics from new sources of innovation in industry, academia, and the public.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	The Regolith Excavation Challenge is a competition that will allow us to expand our knownledge of space. The innovations of participants from industry, academia, and the public will lead to better solutions for an official regolith excavator.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	California Space Authority (CSA) California Space Education and Workforce Institute (CSEWI)		

Program-Title	NASA Academy at AMES for Space Exploration	STEM Inventory		Entry#	134
Org-Type	Government-based				
Lead	NASA	PoC	N/A		
PoC-Phone	650-604-6746	PoC-Email	dohandley@mail.arc.nasa.gov		
Address	NASA Ames Research Center, T20G-2, Moffett Field CA 94035				
URL					
Service-Region	Nationwide				
Type	Student Program				
Subjects	Space|Technology				
Level	Undergraduate|Graduate				
Other-Objectives					
Served-per-Year		Demographics			
Content	The NASA Ames Academy for Space Exploration is a unique summer program of higher learning whose goal is to help guide future leaders of the U.S.Space Program by giving them a glimpse of how the whole system works. The success of the Space Program results from the interaction of government, academia, and the private sector, each playing a critical and different role in the 49-year-old civil program. At the Ames Academy students can learn more about the technologies and studies that are going to make a difference in the 21st century by conducting research projects. Topics for research include: * Advanced Aerospace Materials And Devices: Multifunctional Embedded Systems Development for Exploration Missions * Molecular Mechanisms Of Adsorption For Thermal Protection Systems, * Small Satellite Development * Search for Comets and Asteroids				
Outcomes	The goal of the Academy is to inspire gifted students to become leaders in the aerospace program. Its primary objectives are to: 1) Provide upper level undergraduate/first year graduate students cutting-edge research opportunities with NASA scientists, engineers, and educators, 2) Provide opportunities for leadership development, teamwork, and relationship building, 3) Connect to communities at different places in the educational pipeline through special projects and outreach efforts, especially to under represented student populations,and 4) Link Academy alumni to future hiring opportunities within NASA and throughout the space program.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why	The NASA Academy program is committed to providing a strong technical foundation through which leadership potential can develop among an academically strong and diverse student population. Upon graduation, students immediately find themselves within a latticed network of support from the NASA Academy Alumni Association (NAAA).This structure helps place the students in positions of employment within NASA and in related industries.				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Zero G	STEM Inventory	Entry# 136
Org-Type	Industry-based|Non-Profit-based		
Lead	Zero Gravity Corporation	PoC	Gwendolyn Anello
PoC-Phone	1-800-937-6480 ext. 717	PoC-Email	N/A
Address	5275 Arville Street, Suite 116, Las Vegas NV 89118		
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources		
Subjects	General Science|Space|Engineering|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate|Professional Development		
Other-Objectives			
Served-per-Year		Demographics	
Content	Zero Gravity Corporation (ZERO-G) is a privately held space entertainment and tourism company. Its mission is to bring the excitement and adventure of weightlessness to the public through a safe, fun and cost-effective experience. ZERO-G is the first and only FAA-approved provider of commercial weightless flights for the general public; The ZERO-G Experience™ launched in October 2004. ZERO-G has since successfully flown more than 2,500 passengers aboard 100 flights. In 2006, ZERO-G joined with Northrop Grumman, sponsor of the Weightless Flights of Discovery, an innovative science and engineering education program that incorporates zero-gravity flight experiences for teachers. The program utilizes hands-on science workshops and ZERO-G's unique weightless flights to help educators share the fun and excitement of science, technology, engineering and math with their students. The program realizes ZERO-G's mission to utilize its capabilities for the public sector as a way to further teacher and student knowledge and understanding of science, while inspiring the next generation of space explorers. In its inaugural year, the program hosted 250 teachers representing 49 states, five U.S territories and 24 countries. In 2007, ZERO-G and Northrop Grumman strive to fly approximately 400 teachers and college students. How Weightless Flight is Conducted: ZERO-G conducts its weightless flights aboard G-Force One – a specially modified Boeing 727-200 aircraft. Able to accommodate up to 35 Flyers and six crew members, G-Force One is licensed at the highest levels of safety with the FAA following extensive testing and evaluations in coordination with the FAA. G-Force One flies a parabolic flight maneuvers – a controlled ascent and descent of that creates temporary weightlessness or reduced gravity. This is the identical weightless flight experience used by NASA to train its astronauts and used by Ron Howard and Tom Hanks to film Apollo-13.		
Outcomes	While the ZERO-G flights are open to the public the program we have together with Northrup Grumman is the first of its kind. The program provided professional development for almost 250 teachers from 49 states and 22 countries during the summer of 2006. ZERO-G and Northrup Grumman hope that through the experiences of their teachers students will see the fun and excitement in science, technology, engineering.		
Started		Funded-Through	
Length		Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Northrup Grumman Sharper Image Corporation Amerijet International, Inc.		

Program-Title	Undergraduate Team Aircraft Design	STEM Inventory	Entry# 138
Org-Type	Professional Association-based|Non-Profit-based		
Lead	AIAA	PoC	Jayesh Hirani, Specialist, Student Programs
PoC-Phone	703-264-7564	PoC-Email	jayeshh@aiaa.org
Address	1801 Alexander Bell Drive, Suite 500, Reston VA 20191		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Engineering|Technology		
Level	Undergraduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	In this program students will have to create a vehicle that will meet the following demands. In order to support the US Army's need for future tactical warfare mobility, the United States Air Force (USAF) Air Mobility Command (AMC) has a requirement for an inter-theate tactical transport with austere Short Take-Off and Landing (STOL) field capability. Such a vehicle would permit the AF to deliver a Future Deployable Armored Vehicle (FDAV) vehicle and support equipment to landing areas of opportunity and not necessarily dedicated air fields. The vehicle would also need to be self deployable from the continental United States (CONUS) and would need to integrate seamlessly into the national and international air-space system by possessing commercial airliner speeds and cruise altitudes		
Outcomes	To aid the Army's need for tactical warfare mobility		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	AIAA Student Design/Build/Fly	STEM Inventory	Entry# 139
Org-Type	Professional Association-based|Government-based		
Lead	AIAA	PoC	N/A
PoC-Phone	N/A	PoC-Email	greg.page@nrl.navy.mil
Address			
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	Engineering|Technology		
Level	Undergraduate|Graduate		
Other-Objectives			
Served-per-Year		Demographics	
Content	The AIAA through the Applied Aerodynamics, Aircraft Design, Design Engineering and Flight Test Technical Committees and the AIAA Foundation invites all university students to participate in the Cessna/Raytheon Missile Systems Student Design/Build/Fly competition. Student teams will design, fabricate, and demonstrate the flight capabilities of an unmanned, electric powered, radio controlled aircraft which can best meet the specified mission profile. The goal is a balanced design possessing good demonstrated flight handling qualities and practical and affordable manufacturing requirements while providing a high vehicle performance. To encourage innovation and maintain a fresh design challenge for each new years participants, the design requirements and performance objective will be updated for each new contest year. The changes will provide new design requirements and opportunities, while allowing for application of technology developed by the teams from prior years. Outcomes-Generated: The contest will provide a real-world aircra design experience for engineering students by giving them the opportunity to validate their analytic studies.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	The program has been running for over a decade now and continues to attract a lot of college teams. In this competition students mus work together to design, build and fly planes following the guidelines of the competition. However, in order to do so students must demonstrate teamwork, communication, and the ability to collaborate ideas to produce a working product. Thus through this progra students learn skills required for career success and in the process have fun doing it.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Summer Camp	STEM Inventory	Entry# 140
Org-Type	Non-Profit-based		
Lead	Castle Challenger Learning Center Foundation	PoC	N/A
PoC-Phone	209-726-0296	PoC-Email	info@challengersjv.org
Address	3460 Challenger Way, Atwater CA 95301		
URL			
Service-Region	San Joaquin Valley		
Type	Student Program		
Subjects	Math|Physics|Space|Engineering|Robotics|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	At the Challenger Learning Center we offer camps during the summer to teach kids the fundamentals of science. Our camps run throughout the summer and are separated by grade levels. At the camp such activities included will be the following: * A space mission * Mirrordome planetarium shows * Rocketry * Hands-on science experiments * Physics demonstrations * Robotics		
Outcomes	Through our camp we strive to teach the fundamentals of science, mathematics, and technology. Also, along the way we instill in them three crucial life skills: problem solving, teamwork, and communication.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Programs for Grades 4 and Up	STEM Inventory	Entry# 141
Org-Type	Non-Profit-based		
Lead	Castle Challenger Learning Center Foundation	PoC	N/A
PoC-Phone	209-726-0296	PoC-Email	info@challengersjv.org
Address	3460 Challenger Way, Atwater CA 95301		
URL			
Service-Region	San Joaquin Valley		
Type	Student Program		
Subjects	Physics|Space|Engineering|Robotics|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	At the Challenger Learning Center students grades 4 and up can particate in one of many programs that we offer. Our programs allow them to choose what they are interested in and provide them with lots of resources to aid their learning. Below are just a few of the programs that we offer, each is listed with a short description. Space Missions Individuals become Mission Specialists selected to serve on one of the eight teams critical to the success of this mission. From the operations deck of the spacecraft to the rows of monitors at Mission Control, teamwork is essential. Each crew member will have an opportunity to experience both Mission Control and a spacecraft crew station. We offer three mission scenarios. Creative Car Building Using common objects found around the house and a supplied motor and battery, students construct an electric car. This is an open-ended activity ideal for extension back in the classroom A very simple design can be modified to develop the techniques of scientific investigation, one variable at a time. $200 + $3 per studer for materials Rocketry Programs Chemical Rockets: Blast into science with student constructed rockets powered by solid rocket fuel engines that can soar to unbelievable heights. Energy stored in chemical form is released at launch. The best flights will come from rockets constructed with the least aerodynamic drag and the most stable flight. Stomp Rockets Students construct rockets from a pattern. The rockets are propelled across an auditorium by students stomping on a plastic soda bottle full of compressed air. $150 per group of 36 students		
Outcomes	Our programs are dedicated to teach students the importance of problem solving, teamwork, and communication.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	NASA Student Launch Initiative
Org-Type	Government-based
Lead	NASA
PoC	Julie Clift
PoC-Phone	256-961-1334
PoC-Email	julie.d.clift@nasa.gov
Address	NASA/Academic Affairs Office Mail Code HS30 Marshall Space AL 35812
URL	
Service-Region	Nationwide
Type	Student Program
Subjects	Chemistry|Physics|Space|Engineering
Level	High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	
Content	The NASA Student Launch Initiative (SLI) involves middle and high school students in designing, building, and testing reusable rockets with associated scientific payloads. This unique hands-on experience allows students to demonstrate proof-of-concept for their design and gives previously abstract concepts tangibility. Both new and returning teams construct the vehicle that is designed to reach an altitude of one mile above ground level (AGL). In addition to actual vehicle performance, teams are also evaluated on design and other criteria. This educational experience culminates with a launch at Marshall Space Flight Center in the spring. Teams can qualify to participate in the Student Launch Initiative by placing in the top 25 at the Team America Rocketry Challenge (TARC).
Outcomes	The program aims to maintain student interest in space with hands on work.
Started	
Funded-Through	
Length	
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	World Water Monitoring Day	STEM Inventory	Entry# 143
Org-Type	Non-Profit-based		
Lead	Water Environment Federation / International Water Association	PoC	N/A
PoC-Phone	N/A	PoC-Email	wwmd@wef.org
Address	601 Wythe Street Alexandria, VA 22314		
URL			
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Earth Science|Environmental Science		
Level	Elementary School (K-5th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Participants of World Water Monitoring Day learn about water resources around the world; they learn about water quality and common indicators of water health. Participants purchase a test kit and monitor between September 18 and October 18. Reporting data allows them to share your experiences with others in your community and keep a yearly record of your monitoring test results. After submission, water quality scientists use data from more sophisticated monitoring programs to make decisions on the health and management of water resources. The monitoring tests performed by WWMD participants are designed to bring communities together to learn about the importance of monitoring their local water resources and what they can do to help protect them.		
Outcomes	The primary goal of World Water Monitoring Day is to educate and engage citizens in the protection of water resources around the world. Many communities around the world are unaware of the condition of their water quality and the impact of their behaviors on the quality of their water resources. Conducting simple monitoring tests teaches participants about some of the most common indicators of water health and encourages further participation in more formal citizen monitoring efforts.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why	In 2006, 3,900 sites were monitored in 39 countries, and the program is expected to grow in years to come. Due to increasing participation and expanding reach, in 2006 ACWF transferred the program to the Water Environment Federation (WEF) to provide a larger platform for program delivery. The WEF Board of Trustees formally adopted the program on July 27, 2006.		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	US Geological Survey US Environmental Protection Agency US Dept of Agriculture US Army Corps of Engineers PerkinElmer Instruments Smithfield Foods CH2M Hill ITT Girl Scouts of the USA NACWA Lamotte Company EarthForce Environmental Alliance for Senior Involvement Global Environment & Technology Foundation Jewish National Fund Appalachian Trail Conservancy H2bid.com Smithsonian Environmental Research Center Southern Company Charitable Foundation, Inc.		

Program-Title	COSMOS
Org-Type	Higher-Education-based
Lead	University of California
PoC	N/A
PoC-Phone	N/A
PoC-Email	cosmos@ucop.edu
Address	1111 Franklin Street 9th Floor Oakland, CA 94607
URL	http://www.ucop.edu/cosmos/
Service-Region	All California
Type	Student Program
Subjects	Biology|Earth Science|Space|Computer Science|Engineering|Robotics|Other
Level	High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	
Content	The mission of COSMOS is to motivate the most creative minds of the new generation of prospective scientists, engineers and mathematicians who will become leaders for California, the nation, and the world. At the request of the State of California, UC provides an opportunity for students who wish to learn advanced mathematics and science and to prepare for careers in these areas. The California State Summer School for Mathematics and Science (COSMOS) is a residential academic experience for top high school students in mathematics and science. The COSMOS course clusters address topics not traditionally taught in high schools such as astronomy, aerospace engineering, biomedical sciences, computer science, wetlands ecology, ocean science, robotics, game theory, and more. Some of the courses that COSMOS offer are: astronomy, aerospace engineering, biomedical sciences, computer science, wetlands ecology, ocean science, robotics, game theory, and more.
Outcomes	The program aims to create a community of students who participate in and contribute to an intensive academic experience delivered by distinguished educators and scholars. Through the program students will learn more about courses that generally are not offered in high schools. In taking these courses COSMOS hopes that students will gain interest and pursue career goals in these challenging and exciting fields.
Started	
Funded-Through	
Length	
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	"COSMOS participants are given the incredible opportunity of working and studying with some of UC's finest scientists and engineers, including a number of Nobel Laureates. These outstanding faculty provide the participants with unprecedented access to their laboratories, lectures and research."
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	GLOBE	STEM Inventory	Entry# 146
Org-Type	Non-Profit-based		
Lead	GLOBE	PoC	N/A
PoC-Phone	1-800-858-9947	PoC-Email	help@globe.gov
Address			
URL			
Service-Region	Nationwide		
Type	Professional Development for Teachers		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	GLOBE seeks to establish a community of students, teachers, scientists, and citizens working together to better understand, sustain, and improve Earth's environment at local, regional, and global scales. Our program strives to assist in the teaching and learning of science, enhance environmental literacy and stewardship, and promote scientific discovery.		
Outcomes	The program intends to improve student achievement across the curriculum with a focus on student research in environmental and Earth system science; enhance awareness and support activities of individuals throughout the world to benefit the environment; contribute to scientific understanding of Earth as a system; and inspire the next generation of global scientists.		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	National Aeronautics and Space Administration (NASA) U.S. Department of State U.S. Department of Education U.S. Department of Commerce Program_Other-Organizations: University Corporation for Atmospheric Research (UCAR) National Science Foundation (NSF National Science Teachers Association American Council on the Teaching of Foreign Languages The Association of American Geographers AWS/International Partners in Education MyWonderfulWorld.org Institute of Electrical and Electronic Engineers America View Numerical Terradynamic Simulation Group TERC		

Program-Title	Pre-College Aerospace Education	STEM Inventory	Entry# 152
Org-Type	Professional Association-based		
Lead	American Institute of Aeronautics & Astronautics (AIAA)	PoC	Dean Davis
PoC-Phone	310-364-8311	PoC-Email	dean.e.davis@boeing.com
Address	999 N. Sepulveda Blvd., Suite 440, El Segundo, CA - 90245		
URL	AIAA.com		
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program|Resources		
Subjects	General Science|Math|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology|Other		
Level	Pre-School|Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Professional Development|Retirees/Career-changers		
Other-Objectives	Demonstrate the creativity, aw, and wonder of the scientific and engineering process and how this work helps mankind solve it's majo problems and answer significant questions.		
Served-per-Year	15,000 students	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged|Other
Content	K-12 Teachers can become AIAA Educator Associate Members for Free ($80 value). They can then qualify for $200 Aerospace Science Grant for their classrooms, freee access to all AIAA and NASA publications, and ability to attend AIAA conferences for free or low cost. AIAA provides aerospace scientist and engineer guest speakers with interactive "hands-on" technology demonstrations to schools. Our Engineers & Scientists are avialable to help schools operate career days, science fairs, space days, science days, etc. We can provide advice to enhance aerospace education programs and offer many physics, astronomy, meteorology, geology, aeronautics and astronautics teaching tools for the classroom.		
Outcomes	Increased levels of students entering Science, Technology, Engineering and Mathematics (STEM) programs to feed the aerospace industry workforce.		
Started	75 Years ago.	Funded-Through	Forever.
Length	Ongoing	Cost	Free
Primary-Funding	Foundation|Industry|Donations	Primary-$	
Materials	AIAA Experienced Engineers & Scientists with: bubble makers, kites, glyders, hot-air balloons, radio-controlled air ships, radio-controlled aircraft, radio-controlled helicopters, radio-controlled dragonflies, alka-seltzer pop-rockets, air-propelled stomp		
Other-Funding			
How-Assessed	Programs are reviewed by AIAA national office annually for pre-college STEM educational outreach program quality and quantity of students and teachers served.		
Best-Practice-Why	Yes. For 2006 and 2007 our Los Angeles AIAA Section has won the nation's top prise for educational outreach, Harry Staubs First Prise for Very Large Section Educational Outreach.		
Promising-Practice	Yes.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Every academic, corporate and government organization involved with aerospace. Boeing, Lockheed Martin, Northrop Grumman, Raytheon, Aerospace Corporation, NASA, U.S. Air Force, U.S. Navy, U.S. Army, U.S. Marine Corps, NOAA, DOT, FAA, DOE, etc.		

Program-Title	Future Scientists and Engineers of America	STEM Inventory	Entry# 153

Org-Type	Non-Profit-based		
Lead	Discovery Science Center	PoC	Keith Brush
PoC-Phone	714-229-2224	PoC-Email	kab@fsea.org
Address	Discovery Science Center 2500 North Main Street Santa Ana, CA 92705		
URL	www.fsea.org		
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Engineering|Robotics		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives	FSEA after school programs provide national, year-long, after school enrichment programs that impassion 4th – 12th grade students, i the fields of science and engineering, in an effort to encourage greater numbers of young people to pursue higher education and a career in those fields.		
Served-per-Year	4000	Demographics	
Content	FSEA programs engage the students in innovative, hands-on, STEM (Science, Technology, Engineering and Mathematics) content-rich projects and real-world investigations. These long-term projects develop teamwork, leadership, and problem-solving skills ~ all enviable traits as future employees and responsible citizens.		
Outcomes	FSEA's goals are to develop teamwork, leadership, and problem-solving skills and move students into a career in science and engineering fields.		
Started	1993	Funded-Through	on-going
Length	Ongoing	Cost	$1550 per 10-week unit
Primary-Funding	Other	Primary-$	Most of this program is user-pay funded. Some programs are subsidized by corporations and governmental agencies.
Materials	Participants in FSEA programs are given all the materials necessary to complete 10 weeks of educational programs.		
Other-Funding			
How-Assessed	The programs are assessed through surveys, focus groups, and online questionaires.		
Best-Practice-Why	FSEA and its founder has won several awards for this national program.		
Promising-Practice	We believe that participation in the Future Scientists and Engineers of America program will result in widening the academic and caree pipeline for students of all demographics to secure a successful career in the fields of science and engineering. This is a "turn-key" program that can be disseminated nationwide. Accompanying this program are curriculum packets, hands-on materials, and training DVDs that will engage and encourage the instructor.		
Sponsor	Future Scientists and Engineers of America	Sponsor-Org	Discovery Science Center
Sponsor-Phone	714-229-2224	Sponsor-Email	kab@fsea.org
Other-Orgs	FSEA is a division of Discovery Science Center, Santa Ana, CA.		

Program-Title	Life Sciences Summer Institute (LSSI)	STEM Inventory	Entry# 154

Org-Type	Non-Profit-based		
Lead	San Diego Workforce Partnership Inc.	PoC	Ashley Wildrick
PoC-Phone	619.228.2965	PoC-Email	Ashley@workforce.org
Address	3910 University Ave., Suite 400 San Diego, CA 92105		
URL	http://www.sandiegoatwork.com/generate/html/Youth/life_sciences_summer.html		
Service-Region	San Diego County		
Type	Professional Development for Teachers|Student Program		
Subjects	General Science|Biology|Chemistry		
Level	High School (9-12th grade)|Undergraduate|Teacher Certification|Professional Development		
Other-Objectives	Industry Exposure: The LSSI program provides students with hands-on laboratory and soft skills training prior to entering into a summe internship with the local industry or academic research institute; and provides teachers with hands-on laboratory training and exposur to industry techniques and practices as well as career opportunities for their students.		
Served-per-Year	Direct Numbers Served: 80-100	Demographics	
Content	In an effort to strengthen science and math education and to prepare a world-class scientific workforce for San Diego, the San Diego Workforce Partnership, in collaboration with BIOCOM, the US Department of Labor, and local industry and education partners developed the Life Sciences Summer Institute (LSSI), a program that exposes students and teachers to the life science industry. Create in 2005, LSSI connects upper-level high school, university and community college students, as well as high school and community college teachers, with leading companies within San Diego's life sciences community. The LSSI student internship programs have been developed to elevate interest in the life science industry and related fields of research in order to increase the number of students and graduates pursing degrees and careers in math, science, and engineering disciplines. Students gain exposure to career options, hands-on laboratory experience, work readiness skills, and mentoring by a company or research scientists. The program begins with a one-week introduction to the biotechnology lab, known as the Biotech "Boot Camp", providing students with hands-on laboratory training using industry techniques and soft skills development presented by industry volunteers. The boot camp is held at the Southern California Biotechnology Center at Miramar College where college credit is offered to those who successfully complete the training course. Following the boot camp, students begin a 7-10 week employer-paid internship within the life sciences industry and complete their summer experience with the development of a scientific poster at the conclusion of their internship. The LSSI teacher externship program was developed to increase awareness of the local life sciences industries to those individuals who are most influential in the development of our future workforce. Teachers strengthen their skills through hands-on laboratory curriculum training, industry externship experiences and curriculum integration, along with sharing and networking. The 12-day paid program is hosted in Biogen Idec's state-of-the-art Community Lab, taking teachers out of the classroom and bringing them into a working environment where science is applied every day. The program provides teachers with industry driven curriculum training, using the Amgen-Bruce Wallace Biotechnology Laboratory Program Curriculum, exposure to industry careers through extensive site visits, and ongoing curriculum implementation support throughout the school year.		
Outcomes	To date, the LSSI student internship program has placed a total of 118 students into hand-on industry internship experiences, while the LSSI teacher externship program has trained a total of 54 teachers with the potential to expose over 16,000 students to new biotechnology curriculum and career information by the end of the 2007-2008 school year. Twenty percent of the interns placed in these life science internships have continued to work either part or full time for the company in which they interned. In addition, it is estimated that each teacher reaches an average of 189 students per year, as this program expands the number of students reached wi grow exponentially. Of the over 50 teachers trained, through the LSSI program, 35 schools and every school district within the San Diego region has been reached. With continued support from various foundations and corporate donations our goal is to provide hands-on training and learning opportunities, through the LSSI programs, to an additional 50 students and 25 teachers during the 2008 summer. The LSSI programs benefit the entire community through the education and training of students and teachers in order to enhance science literacy throughout the region and by creating a well-prepared workforce to remain ahead of national and global competition. The program addresses the needs of our society that requires a pipeline of informed and educated citizens who understand the current scientific developments as applied to their lives. As MIT President Susan Hockfield told a National Mathematics Advisory Panel on Sept. 14, 2006, "It could not be more clear that we are now in an era where technical and scientific literacy are as critical as language literacy, …We need to fix the K-12 pipeline that feeds higher education, …To succeed in the workplace and to participate as citizens in society, high school graduates need the ability to think analytically and solve problems creatively… Science an math education are prerequisites for innovation."		

Started	2005	Funded-Through	This project was initially funded through the San Diego Workforce Partnership, Inc. by a grant awarded under the President's High Growth Job Training Initiative, as implemented by the U.S. Department of Labor's Employment and Training Administration. Howe
Length	Ongoing	Cost	$250,000
Primary-Funding	Foundation|Industry|Donations	Primary-$	To date the largest amount recieved from any one donor is $245,291 from the Amgen Foundation to support the LSSI teacher externship program and ongoing classroom support components of the LSSI programs.

Materials	The Amgen-Bruce Wallace Biotechnology Laboratory Curriculum, used in both the student and teacher trainings, represents some of the best labs currently available to high school students. Designed to parallel some of the most important steps the biotechnol
Other-Funding	As mentioned above, the program is currently being funded through leveraged resources, while program partners continue to seek corporate donations, foundation support, and alternate grant resources to sustain the program. To date, we have leveraged the resources of the Southern California Biotechnology Center at Miramar College to sustain the ongoing support of the teachers implementing program curriculum in their classrooms, as well as leveraged support for ongoing program development and implementation. In addition to the support from the Amgen Foundation, we have received funding through corporate donations and foundations from the following: Biogen Idec Foundation, Genentech, Gen-Probe, Invitrogen Corporation, and Pfizer Foundation, totaling $104,500.
How-Assessed	The LSSI has grown considerably as it enters into its fourth summer of operation with record–breaking applicant numbers and

significant increases in industry interests. Performance outcomes have been measured not only by the number of student and teacher

Best-Practice-Why

The Life Sciences Summer Institute (LSSI) program model has proven to be successful and supportive for students, teachers and industry. Students are more confident and comfortable entering into internship experiences having hands-on pre-internship industry training. Teachers are more willing to participate in professional development that provides a broad, yet in-depth, overview of the industry, hands-on laboratory training, curriculum implementation, opportunity for peer-to-peer exchange and most important ongoing support services throughout the school year. Industry partners experience the benefit of having qualified, pre-trained student interns working in their labs, while also having the opportunity to connect and interact with those individuals who are most influential in the development of our future workforce, teachers. Additionally, the program is founded on the concept that students obtain bette science literacy through hands-on experience and through teachers with practical experience that allows them to provide the context for the concepts presented. The LSSI program has been published in a book compiling best practices in biotechnology education from around the world.The book, edited by Yali Friedman, Ph.D. of thinkBiotech LLC, pulls together 22 international best practices in K-12, college, certificate, master's, doctoral, MBA, distance education programs and student groups. The LSSI program is featured in its own chapter titled: A Model for Connecting Students and Teachers to the Biotechnology Industry Cluster in San Diego County. To view the chapter please access the following link: (http://www.logos-press.com/books/biotechnology_education.php) In addition, the LSSI program was recently honored as the Grand Prize Winner of the Theodore E. Small Workforce Partnership Award by the National Association of Workforce Boards (NAWB) on February 25th, 2008 in Washington, D.C. The award represents the highest recognition of workforce investment boards around the nation that advance innovative partnerships with their business communities.

Promising-Practice

The comprehensive LSSI model can be easily replicated for life sciences and could potentially be utilized across other industries. Severa organizations have requested and received information and resources regarding the LSSI programs through speaking engagements and panel presentations during conferences and seminars. We have been able to share program outlines and strategies in an effort to help create replication of this model in other regions throughout the state and country. Although the program has not been replicated in any other discipline to date, the San Diego Workforce partnership has been approached by the telecommunications and energy industries to research the potential for a "high-tech" summer institute. In addition, discussions have begun with our local healthcare industry that also recognizes the potential in this model.

Sponsor

Sponsor-Org

Sponsor-Phone

Sponsor-Email

Other-Orgs

Partners San Diego Workforce Partnership, BIOCOM, Amgen Foundation, Biogen Idec/Biogen Idec Foundation, Genentech, Gen-Probe, Invitrogen Corporation, Pfizer Foundation, Southern California Biotechnology Center (SCBC) at Miramar College, California State University San Marcos, San Diego County Office of Education and the San Diego Science Alliance. Participating Companies Accumetrics, Alexion Antibody Technologies, Anadys Pharmaceuticals, Arena Pharmaceuticals, Assure Controls Inc., Biogen Idec, BioServ Corporation, Burnham Institute for Medical Research, Conatus Pharmaceuticals, Conservation and Research for Endangered Species (CRES), The Dow Chemical Company, eStudySite, Genentech, Genomatica, Genoptix, Gen-Probe, Invitrogen Corporation, Isis Pharmaceuticals, Karl Strauss Brewing Company, Mo BIO Laboratories, Nanogen, Pfizer, Salk Institute for Biological Studies, San Diego State University Labs, Santarus, Inc., Sharp Chula Vista Medical Center, SkinMedica, SGX Pharmaceuticals, SCBC Miramar, Sunrise Science Products, The Scripps Research Institute.

Program-Title	Summer Science Camp	STEM Inventory	Entry# 156
Org-Type	Industry-based|Non-Profit-based		
Lead	TEAM Science	PoC	Clint Davenport
PoC-Phone	562-321-9021	PoC-Email	clint.davenport@team-science.com
Address	333 S Prospect St. Orange, CA 92869		
URL	http://www.team-science.com		
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year	500	Demographics	
Content	SSC is a six-day learning adventure for students in grades K through 12, including elements of creativity, mentoring, community and learning. The program focuses on communicating the joy and excitement of learning math, science and technology in new ways. Students experience a unique opportunity to gain confidence in their own ability to work as “scientists and mathematicians” in a workshop setting.		
Outcomes			
Started	Jul-92	Funded-Through	Apr-09
Length	Ongoing	Cost	
Primary-Funding	Industry|Donations	Primary-$	55,000
Materials	Workshop handouts in a binder, Camp DVD, Camp t-shirt, workshop experiments to take home.		
Other-Funding			
How-Assessed			
Best-Practice-Why	The continuing effectiveness and credibility of the TEAM Science Program is established by the involvement of business and industry partners. Since the inception of the program, aerospace companies, like Rockwell and Boeing, have provided a substantial amount of resources used to make the programs possible. The value of this participation and support is evident from student, parent, and teache feedback, new business and industry sponsors, and intern involvement. These participants see a “real world” connection to learning and workforce development. This enrichment is only greatly enhanced by the participation of more diverse business and industry partners. With the growing demand for technical jobs, additional support is needed from other technology industries such as: power, utilities, medical, communications, and manufacturing. The new business and industry partners will improve the diversity of technolog offerings to students and teachers and also offer them additional perspectives for our workforce development.		
Promising-Practice			
Sponsor	Boeing Employee Community Fund	Sponsor-Org	Boeing
Sponsor-Phone	562-797-2020	Sponsor-Email	beverly.a.hoskinson@boeing.com
Other-Orgs	Boeing Employee Community Fund, Northrop Grumman, Southern California Gas Company, NuVision Financial Credit Union,		

Program-Title	Office of Science Outreach
Org-Type	Higher-Education-based|Collaborative Group
Lead	Stanford University
PoC	Kaye Storm
PoC-Phone	650.724.4332
PoC-Email	kstorm@stanford.edu
Address	Stanford University Building 60, Room 214 Stanford, CA 94305-2063
URL	oso.stanford.edu
Service-Region	Bay Area
Type	Professional Development for Teachers|Student Program
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology
Level	Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate|Professional Development
Other-Objectives	
Served-per-Year	500
Demographics	
Content	Many professional development programs for MS and HS science teachers, including summer research fellowships; summer workshop and internships for MS and HS students. Program website lists many in detail.
Outcomes	Increase the capabilities of STEM teachers and students
Started	2002
Funded-Through	No end date
Length	Ongoing
Cost	
Primary-Funding	Academia
Primary-$	$350,000
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	Kaye Storm
Sponsor-Org	Stanford University
Sponsor-Phone	650.724.4332
Sponsor-Email	kstorm@stanford.edu
Other-Orgs	

Program-Title	CTE Classes is Applied Technology		STEM Inventory	Entry#	159

Org-Type	CTE		
Lead	Cerritos High School	PoC	Sam Bisogno
PoC-Phone	562-926-5566 ext 21817	PoC-Email	N/A
Address	12500 E. 183rd Street Cerritos, CA 90703		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	350	Demographics	Asian and/or Pacific Islander|Black or African American|Other
Content	CTE classes in applied technology, consumer & family science, ROP classes offered through Southeast ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials	work experience, workshops and conferences		
Other-Funding	Perkins General Funds		
How-Assessed	Western Association of Schools and Colleges (WASC) school evaluation and WASC ROP evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	California Partnership Academy	STEM Inventory	Entry# 160
Org-Type	CTE		
Lead	Richard Gahr High School	PoC	Lara Birchier, Co-Director
PoC-Phone	562-926-5566 ext 22176	PoC-Email	www.gahronline.org
Address	11111 Artesia Blvd. Cerriots, CA 90703		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	75	Demographics	
Content	California Partnership Academy: Arts Technology Academy		
Outcomes	Classes, workshops, conferences and staff development time		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Other	Primary-$	
Materials	Cerritos College, CSU Long Beach and Long Beach City College		
Other-Funding			
How-Assessed	CPA Evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	MESA Community College Program (MCCP)	STEM Inventory		Entry#	161
Org-Type	Higher-Education-based				
Lead	El Camino College	PoC	Arturo Hernandez		
PoC-Phone	310-660-3887	PoC-Email	ahernandez@elcamino.edu		
Address	16007 Crenshaw Blvd Torrance, CA 90506				
URL					
Service-Region	All California				
Type	Student Program				
Subjects	General Science|Math|Computer Science|Engineering				
Level	Undergraduate				
Other-Objectives	1. Demonstrate a command of skills in the chosen field of study and exhibit the appropriate study skills to master the material. 2. Have acquainted themselves with a long-term support system including faculty, fellow students, campus and off-campus resources, organizations, and potential employers. 3. Have a defined plan for what needs to be accomplished after transfer. 4. Have the knowledge to create an adequate resume in order to obtain internships to professionally develop themselves for tomorrow's workforce. 5. Have developed the confidence required to successfully navigate the academic process at the accepted transfer institution.				
Served-per-Year	120	Demographics	Economically disadvantaged|Other		
Content	MESA Community College Program (MCCP) provides math, engineering and science academic enrichment to community college students so they excel academically and transfer to four-year institutions as math-based majors. The program establishes academic-based community centers at campuses where most students are commuters, making opportunities for peer support and information-sharing scarce. The program is supported by industry, so students learn firsthand about career options and learn about scholarships, internships and special programs. MCCP is a partnership with the California Community Colleges Chancellor's Office. The main components of the MCCP include: Academic Excellence Workshops. Students are scheduled in the same core math and science classes and taught how to maintain high academic outcomes through group study. Orientation course. The class teaches college survival skills to incoming students majoring in math, engineering and science. Assistance in the transfer process. MESA offers workshops on applications, counseling and field trips to universities. Career advising. Students are exposed to different math, engineering and science career options through industry mentors, field trips, job shadowing, career fairs and internship opportunities. Links with student and professional organizations. These resources provide mentors, guest speakers and tours of companies. Student Study Center. This dedicated multipurpose space is used for study, workshops and information sharing. Professional development workshops. Students participate in mock job fairs, learn resume preparation and interview skills and how to find part-time, full-time and summer employment.				
Outcomes					
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials	• Onsite counseling for academic advisement • Career planning and assistance with the transfer process • Academic Excellence Workshops (AEW) in Math, Chemistry, Physics, and Biology. • Tutoring in Math and Science courses • MESA Study center equipped wit				
Other-Funding					
How-Assessed	Through Progress and Final Reports				
Best-Practice-Why	Yes, it provides resources to underserved students that successfully tranfser to four-year schools in Math, Engineering and Science majors				
Promising-Practice	Yes				
Sponsor	CCC Chancellor's Office	Sponsor-Org	CCC Chancellor's Office		
Sponsor-Phone	(916) 327-5884	Sponsor-Email	LCasale@CCCCO.edu		
Other-Orgs	University of California, California State Universities, California Community Colleges, Independent Colleges and Universities, Society of Hispanic Professional Engineers (SHPE), Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), Hispanic Engineering National Achievement Awards Conference (HENAAC), National Association of Multicultural Engineering Program Advocate (NAMEPA).				

Program-Title	Pathways to College and Career		STEM Inventory	Entry#	162

Org-Type	CTE		
Lead	Alhambra High School	PoC	Bob Corpal, ROP Technician or Moinca Marquez
PoC-Phone	626-308-2570	PoC-Email	corpal_bob@alhambra.k12.ca.us
Address			
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Math|Computer Science|Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives	Conferences and workshops		
Served-per-Year	680	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino
Content	Pathways to College and Career (PTCC) program. Academy of future educators; Advancement via individual determination; Math Engineering Science Academy, and Technology Training for Tororrow		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Industry	Primary-$	
Materials			
Other-Funding	Support Services for students: 3 full time RP technicians and employees at the high school. Ofers the CHOICES program, which provide college and career planning services to all freshman.		
How-Assessed	Western Association of Schools and Colleges (WASC) school evaluation and WASC ROP evaluation.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Pasadena City College and East Los Angeles College		

Program-Title	Project Lead the Way		
Org-Type	CTE		
Lead	Highland High School	PoC	Mr. Haines, Engineering Teacher
PoC-Phone	661-538-0304 ext 504	PoC-Email	N/A
Address	39055 25th Street W Palmdale, CA 93551		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Project Lead the Way: provides engineering technology curriculum and industrial technology classes.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Rochester Unversity (NY)		

Program-Title	CTE Courses (Combination)	STEM Inventory	Entry# 164
Org-Type	CTE		
Lead	Gladstone High School	PoC	N/A
PoC-Phone	626-815-5157	PoC-Email	www.azusausd.k12.ca.us/sarcs
Address	1340 N. Enid Covina, CA 91722		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Space|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	CTE courses (combination of Gladstone High School, School District and ROP)Environmental and Space Technology		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Individual help, peer tutors, certificated teachers in each class, special education and biingual aides support special education teachers (co-teach)		
How-Assessed	Feedback fron Business Advisory Council and Future Business LEders of Aerica-Phi Beta Lambda, Inc. (FBLA-PBL). Meeting with Mount San Antino and Citrus College to compare site curriculum to that of the community college, student grades, degree of alignmen		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	California Partnership Academy		STEM Inventory	Entry#	165
Org-Type	CTE				
Lead	Hawthorne High School	PoC	Jeff Ordway		
PoC-Phone	310-263-4401 ext 4077	PoC-Email	www.hhsengineering.com		
Address	4859 El Segundo Blvd Hawthorne, CA 9250				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Engineering				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	105	Demographics	Black or African American|Hispanic or Latino		
Content	Engineering/Manuacturing Computer Science B and A Plus Certification class.				
Outcomes	Boot camp through Project Lead the Way (year long projects completed in two weeks)				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding	Support Services for Student: e-mentoring (icouldbe.org), class speakers, field trips, mentors, after school tutoring				
How-Assessed	CPA evalution and informal check ins every 5 weeks with students				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	El Camino College and CSU Long Beach (in process)				

Program-Title	Career Sequences		STEM Inventory	Entry#	166

Org-Type	CTE		
Lead	Centennial High School	PoC	Reina Singh, Director of ROP & Vocational Education
PoC-Phone	310-635-2715	PoC-Email	N/A
Address	2606 N. Central Compton, CA 90222		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	670	Demographics	
Content	Career sequences, ROP and non-ROP classes. General vocational eduction courses in Introduction to Industrial & Technology Careers		
Outcomes	Conferences and workshops		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Academia	Primary-$	
Materials			
Other-Funding			
How-Assessed	State requirements. All courses evaluated on 1) Mastery of eployment readiness standards 2) career technical skills assessments 3) participation in career/technical student organizations and 4) placement of prgram completers in employment, post secondary		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	El Camino-Compton Educational Center, Los Angeles Trade Technical College, CSU Domiguez Hills, Orange Coast College		

Program-Title	Career Seuences, ROP and Non-ROP Classes		STEM Inventory	Entry#	167
Org-Type	CTE				
Lead	Compton High School	PoC	Reina Singh, Director of ROP		
PoC-Phone	310-635-3881	PoC-Email	N/A		
Address	601 S. Acacia Street Compton, CA 90220				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	536	Demographics			
Content	Career sequences, ROP and non-ROP classes. General vocational eduction courses in Introduction to Industrial & Technology Careers				
Outcomes	Conferences and workshops				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Academia	Primary-$			
Materials					
Other-Funding					
How-Assessed	State Requirements. All courses evaluated on 1) Mastery of employment readiness standards 2) career technical skills assessments 3) participation in career/technical student organization and 4)placement of program completers in employment, post secondary				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	El Camino-Compton Educational Center, Los Angeles Trade Technical College, CSU Domingues Hills, Orange Coast Collge.				

Program-Title	Pathways to College and Career (PTCC) San	STEM Inventory		Entry#	168
Org-Type	CTE				
Lead	San Gabriel High School	PoC	Bob Corpal, ROP Technician or Monica Marquez		
PoC-Phone	626-308-2570	PoC-Email	corpal_bob@alhambra.k12.ca.us		
Address	801 Ramona Street San Gabriel, CA 91776				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Engineering|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	580	Demographics	Asian and/or Pacific Islander|Hispanic or Latino		
Content	Pathway to College and Career program offers courses in Engineering Technology, Science and Environmental Studies. One of the thre academies being Business and Technology.ROP and CTE courses in Exploratory Industrial Technology. All courses are offered on-campus.				
Outcomes	Conferences and workshops				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: 3 full time ROP Technicians and employees at the High School. Offers the CHOICES program, which provides college and career planning services to all freshman.				
How-Assessed	Western Association of Schools and Colleges WASC) school evaulation and WASC ROP evaluation				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Pasadena CIty College and East Los Angeles College				

Program-Title	The Medical, Visual and Performing Arts	STEM Inventory		Entry#	169
Org-Type	CTE				
Lead	Palmdale High School	PoC	Linda Noteboon; Tim Klein Co-Coordinator		
PoC-Phone	661-273-3181 ext 606 or 332	PoC-Email	N/A		
Address	2137 E. Avenue R Palmdale,CA 93550				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	300	Demographics	Black or African American|Hispanic or Latino|Other		
Content	Industrial Technology courses nin Automotive and Consturction Technology. Business and Industrial Technology.				
Outcomes	Retreats, emergency training of instructors.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Other	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation to worksite				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Medical Clinic has 2 internships offered through Antelope Valley ROP				

Program-Title	Career Sequences (Compton)		STEM Inventory	Entry#	170
Org-Type	CTE				
Lead	Compton High School	PoC	Reina Singh, Director of ROP and Vocational Education		
PoC-Phone	310-653-3881	PoC-Email	N/A		
Address	601 Acia Street Compton, CA 90220				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	536	Demographics			
Content	ROP and Non-ROP classes. Introduction to Industrial & Technology Careers.				
Outcomes	Conferences and Workshops				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation to jobsites				
How-Assessed	State requirements. All courses evaluated on 1) Mastery of employment readiness standards 2) career technical skills assessments 3) participation in career/technical student organizations and 4) placement of program completers in employment, post secondar				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	El Camino-Compton Educational Center, Los Angeles Trade Technical College, CSU Dominugez Hills, Orange Coast College				

Program-Title	Career Sequences , ROP & Non-ROP		STEM Inventory	Entry#	171
Org-Type	CTE				
Lead	Dominguez High School	PoC	Reina Singh, Director of ROP and Vocational Education		
PoC-Phone	310-898-6000	PoC-Email	N/A		
Address	15301 San Jose Compton, CA 90221				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives	Conferences and workshops				
Served-per-Year	468	Demographics			
Content	General vocational education courses Wood Technology, Auto Technology				
Outcomes	Conferences and workshops				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation to jobsites				
How-Assessed	State requirements. All courses evaluated on 1) Mastery of eployment readiness standards 2) career technical skills assessments 3) participation in career/technical student organizations and 4) placement of prgram completers in employment, post secondary				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	El Camino-Compton Educational Center, Los Angeles Technical Trade College, CSU Dominguez Hills, Orange Coast College				

Program-Title	Specializes in Science and Technology	STEM Inventory	Entry# 172
Org-Type	CTE		
Lead	Clark Magnet High School	PoC	Doug Dall, Principal
PoC-Phone	818-248-8324 ext 1210	PoC-Email	N/A
Address	4747 New York Avenue Ls Cresenta, CA 91214		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math|Engineering|Robotics|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	1,000	Demographics	Hispanic or Latino|Other
Content	Specializes in Science and Technology. Career cluster in Math,Science,Engineering, Technology Systems. ROP classes offered through Los Angeles County of Education (LACO/ROP). grant program in robotics offered through Verdugo School-to-career Advisory Committee.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	All cources are evaluated through 1)displayed mastery of employment readiness standards and 2) business, labor, and other community stakeholder support		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Partnership with Verdugo School-to-career Advisory Committee, a corsortiun of business leaders and educators who provide grants fo work related peograms at local schools.		

Program-Title	Career Clusters	STEM Inventory	Entry# 173
Org-Type	CTE		
Lead	Crescenta Valley High School	PoC	N/A
PoC-Phone	818-249-5871 ext 2205	PoC-Email	www.glendale.k12.ca.us/internal.schools
Address	2900 Community Avenue La Cresenta, CA 91214		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Computer Science|Robotics|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Career cluster in Robotics, Science ans Technical Science, Scienec/Medicine Academy, Social Science. ROP classes offered through Los Angeles County Office of Education.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed	All courses are evaluated through 1) displayed mastery of emploment readiness standards and 2) business, labor and other community stakeholder support.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Partnership with Verdugo School-to-career Advisory Committee, a consortium of business leaders and educators who provide grants for work related programs at local schools.		

Program-Title	Business Engineering & Technology Academy	STEM Inventory	Entry# 175
Org-Type	CTE		
Lead	Herbert Hoover High School	PoC	Debbie Banoi, AssistantPrincipal
PoC-Phone	818-241-3111 ext 325	PoC-Email	N/A
Address	651 Gelnwood Road Glendale, CA 91202		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Business Engineering & Technology Academy (BETA). Scien and Technical; Social Science; Transportation; and Visual Arts Academy. ROP classes offered through Los Angeles County office of Education (LACO/ROP)		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed	All courses are evaluated through 1) displayed mastery of employment readiness standards and 2) business, labor, and other community stakeholder support.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Works with Verdugo School-to-Career Advisory Committee, a consortium of business leaders and educators who provide grants for work related programsat local schools. Seniors work with Junior Achievement and teach economics at local elementary schools.		

Program-Title	University Academy		STEM Inventory	Entry#	176
Org-Type	CTE				
Lead	La Puente High School	PoC	Career Center		
PoC-Phone	626-934-6700	PoC-Email	N/A		
Address	15615 E. Nelson Avenue La Puente, CA 91744				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Computer Science|Robotics|Technology				
Level	High School (9-12th grade)				
Other-Objectives	Career workshops and career days				
Served-per-Year	628	Demographics			
Content	Technology Academy; Performing Arts Academy and Science Academy.Classes include: Forensic Science, Computer applications, Robotics. ROP classes offered through La Puente Valley ROP.				
Outcomes	Career Workshops and career days				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	University Academy		STEM Inventory	Entry#	177
Org-Type	CTE				
Lead	La Puente High School	PoC	Career Center		
PoC-Phone	626-934-6700	PoC-Email	N/A		
Address	15615 E. Nelson Avenue La Puente, CA 91744				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Computer Science|Robotics|Technology				
Level	High School (9-12th grade)				
Other-Objectives	Career workshops and career days				
Served-per-Year	628	Demographics			
Content	Technology Academy; Performing Arts Academy and Science Academy.Classes include: Forensic Science, Computer applications, Robotics. ROP classes offered through La Puente Valley ROP.				
Outcomes	Career Workshops and career days				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Career Pathways in Arts and Communication	STEM Inventory	Entry# 178
Org-Type	CTE		
Lead	Los Altos High School	PoC	Career Center
PoC-Phone	626-934-5400 ext 5405	PoC-Email	N/A
Address	15325 E. Los Robles Avenue Hacienda Heights, CA 91745		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Environmental Science|Engineering|Robotics|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	915	Demographics	
Content	Career pathways in Arts and Commincation. Business Technology, Health and Environmental Science, Industrial Technology and Engineering. ROP classes offered through La Puente ROP.ROP cources included Computer Applications, Engineering Technology, Robotics and Virtual Enterprise.		
Outcomes	Job Shodowing, work experience, career day and speakers		
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Non-ROP (Business classes) ROP Classes	STEM Inventory		Entry#	179

Org-Type	CTE		
Lead	Glen A. Wilson High School	PoC	Babette Cervanti
PoC-Phone	626-934-4406	PoC-Email	N/a
Address	16455 Wedgeworth Hacienda Heights, CA 91745		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives	Internships, job shadowingand community partnerships		
Served-per-Year	525	Demographics	Asian and/or Pacific Islander|Hispanic or Latino
Content	Non-ROP and ROP classes offered through La Puente Valley ROP. ROP classes include: Computer Applications, Computer Science, Web Page Design, Computer Repair and Student Assistant/Career Technology.		
Outcomes	ROP related conferences, advisory boards composed of teachers, college and industry representatives		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding	Support Services for Students: Transporation to off campus lasses (ROP)		
How-Assessed	WASC, ROP Rubric and the CTE Rubric. Research and participation in ROP Advisory panel discussions with current industry representatives.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antino and Rio Hondo Community Colleges		

Program-Title	Non-ROP (Business classes) ROP Classes	STEM Inventory		Entry#	180

Org-Type	CTE		
Lead	Glen A. Wilson High School	PoC	Babette Cervanti
PoC-Phone	626-934-4406	PoC-Email	N/a
Address	16455 Wedgeworth Hacienda Heights, CA 91745		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives	Internships, job shadowingand community partnerships		
Served-per-Year	525	Demographics	Asian and/or Pacific Islander|Hispanic or Latino
Content	Non-ROP and ROP classes offered through La Puente Valley ROP. ROP classes include: Computer Applications, Computer Science, Web Page Design, Computer Repair and Student Assistant/Career Technology.		
Outcomes	ROP related conferences, advisory boards composed of teachers, college and industry representatives		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding	Support Services for Students: Transporation to off campus lasses (ROP)		
How-Assessed	WASC, ROP Rubric and the CTE Rubric. Research and participation in ROP Advisory panel discussions with current industry representatives.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antino and Rio Hondo Community Colleges		

Program-Title	CTE Courses		STEM Inventory	Entry#	181
Org-Type	CTE				
Lead	Juan Rodriguez Cabrillo High School	PoC	N/A		
PoC-Phone	562-951-7700	PoC-Email	www.cabrillohs.org		
Address	2001 Sant Fe Ave Long Beach, CA 90810				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Engineering|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	1,023	Demographics			
Content	CTE courses are organized into sequences or small learning communities (SLC's). Cabrillo Arts and Technology, Cabrillo Engineering and Design, and Information Technology. ROP classes offered through Long Beach ROP: virtual enterprise (i.e. simulated business class) and various stand alone computer and industrial technology classes.				
Outcomes	internships				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding	Support Services for Students: Career counseling, career day with local businesses and community members.				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	CTE Courses		STEM Inventory	Entry#	182
Org-Type	CTE				
Lead	Juan Rodriguez Cabrillo High School	PoC	N/A		
PoC-Phone	562-951-7700	PoC-Email	www.cabrillohs.org		
Address	2001 Sant Fe Ave Long Beach, CA 90810				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Engineering|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	1,023	Demographics			
Content	CTE courses are organized into sequences or small learning communities (SLC's). Cabrillo Arts and Technology, Cabrillo Engineering and Design, and Information Technology. ROP classes offered through Long Beach ROP: virtual enterprise (i.e. simulated business class) and various stand alone computer and industrial technology classes.				
Outcomes	internships				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding	Support Services for Students: Career counseling, career day with local businesses and community members.				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Career Sequences (Lakewood)	STEM Inventory	Entry# 183
Org-Type	CTE		
Lead	Lakewood High School	PoC	N/A
PoC-Phone	562-425-1281	PoC-Email	www2.lbusd.k12.ca.us/lakewood
Address	4400 Briercest Avenue Long BEACH, ca 90713		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	1750	Demographics	
Content	Career sequences through small learning commuities (SLC's). Arts Arts Academy, Applied Technology Magnet. ROP classes offered through Long Beach ROP. ROP classes in exploring teaching and applied technology.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding	Support Services for Students: Career oriented field trips, counseling and guest speakers		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Internships, job shoadowing, work experience. Partnership with Long Beach School-to-Career Consortium and ciommunity organizations to provide career oriented field trips and job ahadowing.		

Program-Title	Global Environment Sciences Academy		STEM Inventory	Entry#	185

Org-Type	CTE		
Lead	Banning High School	PoC	Ben Ngyuen
PoC-Phone	310-549-7500 ext 626	PoC-Email	N/A
Address	1527 Lakme Avenue Wilmington, CA 90744		
URL	l		
Service-Region	Southern California		
Type	Student Program		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	60	Demographics	Hispanic or Latino|Other
Content	Global Environmental Sciences Academy		
Outcomes	Counseling, tutoring		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	Attendance, GPA test score and exit exam results		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Global Environment Sciences Academy		STEM Inventory	Entry#	186

Org-Type	CTE		
Lead	Banning High School	PoC	Ben Ngyuen
PoC-Phone	310-549-7500 ext 626	PoC-Email	N/A
Address	1527 Lakme Avenue Wilmington, CA 90744		
URL	l		
Service-Region	Southern California		
Type	Student Program		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	60	Demographics	Hispanic or Latino|Other
Content	Global Environmental Sciences Academy		
Outcomes	Counseling, tutoring		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	Attendance, GPA test score and exit exam results		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Veterinary and Environmental Science Magnet	STEM Inventory		Entry#	187

Org-Type	CTE		
Lead	Canoga Park	PoC	Doug Cousins, Magnet Coordinator
PoC-Phone	818-673-1364	PoC-Email	N/A
Address	6850 Topanga Canyon Blvd. Canoga Park, CA 91303		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	187	Demographics	Hispanic or Latino|Other
Content	Veterinary and Environmental Science Magnet		
Outcomes	Forestry workshops, conferences through the CA Agriculture Teachers Association		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials	Develop curricular maps during the summer; English, History and Science teachers have some integrated lessons		
Other-Funding			
How-Assessed	Every 3 years the Office of Student Integration reviews classes. Look at the number of sections of magnet classes and attendance raters; state reviews of CA Ag. Incentives Grant		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Pierce College		

Program-Title	Arts and Technology Academy		
Org-Type	CTE		
Lead	Cleveland High School	PoC	AzamIrilian
PoC-Phone	818-349-8410 ext 655/392	PoC-Email	N/A
Address	8140 Vanalden Avenue Reseda, CA 91335		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	320	Demographics	
Content	Arts and Technology Academy		
Outcomes	Mentoring and tutoring from CSUN and DeVry Students		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	Attendance, GPA, test scores and exit exam results		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Information Technology Academy		
Org-Type	CTE		
Lead	Elizabeth Learning Center	PoC	Roger Hull
PoC-Phone	323-560-4813	PoC-Email	N/A
Address	4811 Elizabeth Street Cudahy, CA 90201		
URL			
Service-Region	Northern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	350	Demographics	Hispanic or Latino
Content	Information Technology Academy		
Outcomes	Mentoring		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	CPA Evaluation, reports, school evaluation business partner steering committee recommendations		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	East Los Angeles College		

Program-Title	Imaging Science and Technology Academy		STEM Inventory	Entry#	193
Org-Type	CTE				
Lead	Manual Arts High School	PoC	John Santos		
PoC-Phone	323-232-1121 ext 3192	PoC-Email	N/A		
Address	4131 S. Vermont Avenue Los Angeles, CA 90037				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	380	Demographics	Black or African American|Hispanic or Latino		
Content	Imaging Sciences and Technology				
Outcomes	Youth mentoring connection, A place called Home and Sturday tutoring from Raytheon and Boeing employees.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed	college-going and retention rates, SAT scores. 06 college group rate 42/42. College retention rate 72%. SAT scores 19 pts higher than district average.				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	LOU's with LA Trade Technical College, UC Berkeley, UC Merced, CSU Los Angeles, USC and UT El Paso. Pending with UC Irvine, Stanford.				

Program-Title	Math and Science Magnet	STEM Inventory	Entry# 194
Org-Type	CTE		
Lead	Sylmar HighSchool	PoC	Debbie Steiner
PoC-Phone	818-333-3700	PoC-Email	N/A
Address	13050 Borden Avenue Sylmar , CA 91342		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	393	Demographics	Black or African American|Hispanic or Latino|Other
Content	Math and Science		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Service for Students: Transportation		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Career Pathways (Montebello)	STEM Inventory	Entry# 196
Org-Type	CTE		
Lead	Montebello High School	PoC	Rick Espinoza
PoC-Phone	323-728-0121	PoC-Email	espinoza-rick@montebello.k12.ca.us
Address	2100 W. Cleveland Avenue Montebello, CA 90640		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	1,100	Demographics	
Content	Career Pathways in Technology, Communication Technology, Engineering (Project Lead the Way), CTE classes in Construction Technology, Auto Technology. ROP classes offered through Los Angeles COunty Office of Education.		
Outcomes	CTE and ROP teachers attend workshopsto bring CTE Cources up to A-G standards. They are required to attend 3 staff development trainings. Teachers also tour a business where students might work to learn what is expected and what job skills are needed in that field.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry|Academia	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling at career centers		
How-Assessed	Standard School Evulation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Cerritos, Rio Hondo and Eat LA Colleges		

Program-Title	ROP Classes Through SCROC	STEM Inventory	Entry# 198
Org-Type	CTE		
Lead	Palos Verdes Peninsula High School	PoC	Mitsy Cress, Associate Principal
PoC-Phone	310-378-8471 ext 294	PoC-Email	N/A
Address	27118 Silver Spur Road Rolling Hills Estates, CA 90274		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through Southern California eginal Occupation Center (SCROC). On site courses n Medical Technonlgy/Engineering and Design (Science Research)and Media Support Services (Web Page Production)		
Outcomes	internships and work experience with local businesses		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	College and career counseling, additional support services at SCROC main campus		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	ROP Classes Through SCROC	STEM Inventory	Entry# 199
Org-Type	CTE		
Lead	Palos Verdes Peninsula High School	PoC	Mitsy Cress, Associate Principal
PoC-Phone	310-378-8471 ext 294	PoC-Email	N/A
Address	27118 Silver Spur Road Rolling Hills Estates, CA 90274		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through Southern California eginal Occupation Center (SCROC). On site courses n Medical Technonlgy/Engineering and Design (Science Research)and Media Support Services (Web Page Production)		
Outcomes	internships and work experience with local businesses		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	College and career counseling, additional support services at SCROC main campus		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Classes in Health Career and Technology		STEM Inventory	Entry#	200
Org-Type	CTE				
Lead	William L. Blair High School	PoC	Federico Saucedo, ROP Counselor		
PoC-Phone	626-441-4151	PoC-Email	N/A		
Address	1201 S. Marengo Avenue Pasadena, CA 91106				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	150	Demographics	Black or African American|Hispanic or Latino|Other		
Content	Classes in Health Careers, Technology, Culinary Arts, Floristry, or Travel and Tourism Pathway. ROP classes offered through Los Angele County Office of Education (LACO/ROP)				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Counseling				
How-Assessed	School Principal and ROP Director evaluation of classes, student course surveys and course content evaluations by school administration.				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Pasadena City College				

Program-Title	LACO/ROP	STEM Inventory	Entry# 202
Org-Type	CTE		
Lead	John Muir High School	PoC	Freddy Saucedo, ROP Counselor
PoC-Phone	626-441-2201 ext. 304	PoC-Email	N/A
Address	1905 Lincoln Avenue Pasadena, CA 91103		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Classes in Health Careers, Technology, Vulinary Arts and Floristry. ROP classes offered through Los Angeles Office of Eduation.		
Outcomes	District and County ROP Workshops		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	School Principal and Director of ROP conduct evaluation of classes and course content, Students also have option to evaluate classes through the Student Technical Interest Survey (SETIS) administered to 10th graders, a career interest survey to determine		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Formal agreement with Pasadena City College		

Program-Title	California Partnership Academny (John Muir	STEM Inventory		Entry#	204
Org-Type	CTE				
Lead	John Muir High School	PoC	Shelly McDonald		
PoC-Phone	626-798-7881	PoC-Email	N/A		
Address	1905 Lincoln Avenue Pasadena, CA 91103				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Engineering|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	120	Demographics	Black or African American|Hispanic or Latino		
Content	Science, Engineering and Technology Academy (interdisciplinary approach combining English, Math, Social Science, and Science to study aspects of space and related technologies, including engineering and design of space activities)				
Outcomes	CPA Annual conference				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Tutoring and Counseling				
How-Assessed	CPA Evaluation				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Formal agreement with Pasadena City College				

Program-Title	Career Sequences/Pathways	STEM Inventory	Entry# 206
Org-Type	CTE		
Lead	Pomona USD	PoC	Marie Dennis
PoC-Phone	909-397-5090 ext. 4302	PoC-Email	N/A
Address	800 S. Garey Avenue Pomona, CA 91766		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through San Antino ROP. Career Sequences/Pathways in Business and Marketing, Health Sciences, Science and Technology.Courses are offered both during and after school hours.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Each class must complete a training plan and students must meet plan requirements. They are tested throughout the course year to receive a certificate of completion at the end of the course. If class is industry certified, student must take a test for cer		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antino College and pending with Chaffey College working to improve in this area		

Program-Title	La Puente Valley ROP		
Org-Type	CTE		
Lead	Rowland USD	PoC	Donna Schwann, Assistant Superintendent
PoC-Phone	626-810-3300 or 626-854-8520 ext 1572	PoC-Email	N/A
Address	1830 Nogales Street Rowland Heights, CA 91748		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	800-900 district wide	Demographics	
Content	ROP classes offered through La Puente Valley ROP. 6 Pathways in Arts & Communication , Bussiness,Fmily & Consumer Science, Technology (Engineering & Construction. Student can continue in the Career Certification Program.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Career Center Resources; career interest assessment classroom speakers		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	ROP Classes -Nogales HS		STEM Inventory	Entry#	208

Org-Type	CTE		
Lead	Nogales High School	PoC	Armando Ayala
PoC-Phone	626-965-9497	PoC-Email	N/A
Address	401 S. Nogales Street L Puente, CA 91744		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	300-400	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other
Content	ROP classes offered through La Puenta Valley ROP; Arts and Communications, Business and Marketing, Consumer ans Human Services Health Sience and Information Technology		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Manager evaluation instructors, student feedback surveys		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Forensic Science articulation with Rio Hondo and Mount St. Antino CollegesInternships (cosmetology, business, nursing, medical) within Human Services Pathway		

Program-Title	La Puente Valley ROP		STEM Inventory	Entry#	210
Org-Type	CTE				
Lead	Nogales High School	PoC	Armando Ayala, ROP Guidance Specialist		
PoC-Phone	626-965-3437	PoC-Email	N/A		
Address	401 S. Nogales Street La Puenta, CA 91744				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	300-400	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other		
Content	ROP clesses offered through La Puente Valley ROP; Arts and Communication, Business and Marketing, Consumer and Human Services, Health Sciences and Information Technology				
Outcomes	Internships within Human Services Pathway				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Counseling				
How-Assessed	Manager evaluations and instrucotrs, student feedback surveys				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Forsenic science articulation with Rio Hondo amd Mount St. Antino Colleges.				

Program-Title	Career Development and Research Orientation	STEM Inventory		Entry#	211
Org-Type	CTE				
Lead	West High School	PoC	Laurie Paolozzi, CTE Departmetn Chair		
PoC-Phone	310-533-4299 ext 7728	PoC-Email	N/A		
Address	20401 Victor Torrance, CA 90503				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	850	Demographics	Asian and/or Pacific Islander|Hispanic or Latino|Other		
Content	Career pathways and classes in Career Development and Research Orientation (CDRO), Child Devwelopment and Education Pathway, Fashothway. Woods and Industrial Technology, Accounting, Home Economics, Video Production, Survival of Singles (Contemporary Living) and computers ROP classes offeref through Southern California Regional Occupation Center (SCROC)				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation to worksite in Development Psychology of children				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Informal agreement with El Camino College for applied technology courses				

Program-Title	California Partnership Academy	STEM Inventory	Entry# 213
Org-Type	CTE		
Lead	California High School	PoC	Ricardo Alvarez
PoC-Phone	562-698-8121 ext 3325	PoC-Email	N/A
Address	9800 S. Mills Avenue Whittier, CA 90604		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	87	Demographics	Hispanic or Latino|Other
Content	California Partnership Academy: Architecture and Engineering. Sequence of three programs; Mechanical Drafting, Architectural Drawing and Architectural Drafting.		
Outcomes	Mentoring and Counseling		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	Evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Rio Hondo College, Cerritos College, East LA College and Mount San Antino College.		

Program-Title	Career Pathway - Claremont		STEM Inventory	Entry#	214
Org-Type	CTE				
Lead	Claremont High School	PoC	Kevin KronfieldDean of Students and CTE Coordinator		
PoC-Phone	909-624-9053 ext 30441	PoC-Email	N/A		
Address	1602 N. Indian Hill Blvd. Claremont, CA 91711				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	850	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other		
Content	Career Pathways in Business; Theater Set Construction, Automotive Repair and Video Production, ROP and non-ROP claeese offered through Baldy View ROP. ROP classes in Health, constuction, business, marketing, public service, industry and technology. Conferences and workshops				
Outcomes	Conferences and workshops				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding	Support Service for Students: Counseling about vocational options. Students have the opportunity to earn ROP professional certification and to continue on to vocational certificate programs available at local community colleges.				
How-Assessed	Western Association of Schooks and Colleges (WASC) evaluation				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Pomona College, Citrus and Mount San Antonio Collge				

Program-Title	College and Career Preparatory Magnet School	STEM Inventory	Entry# 215
Org-Type	CTE		
Lead	Artesia High School	PoC	Mrs. Goodrich , Senior Career Counselor
PoC-Phone	562-926-5566 ext 21608	PoC-Email	N/A
Address	12108 E. Del Amo Blvd. Lakewood, CA		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Earth Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Career academies in Business Economics and Finance: Communication, Law and Hunam Services; Medical & Environmental Science; and Visual and Performing Arts. ROP classes offered through Southeast ROP.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	PTCC - Mark Keppel	STEM Inventory	Entry# 216
Org-Type	CTE		
Lead	Mark Keppel High School	PoC	Bob Corpal, ROP Technician
PoC-Phone	626-308-2570	PoC-Email	NA/
Address	501 E. Hellman Avenue Alhambra, CA 91801		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Environmental Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	600	Demographics	Asian and/or Pacific Islander|Hispanic or Latino
Content	Pathways to College and Career program. Engineering, Science, Culinary, Automotive and Computer Technology. Many pathway sequences or capstone courses are administered through ROP. ROP and CTE courses.		
Outcomes	Conferences and workshops		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: 3 full time ROP technicians and employees at high school. Offers the CHOICES program, which provides college and career planning services to all freshman.		
How-Assessed	Western Association of Schools and Colleges (WASC) school evaluation and WASC ROP evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Pasadena City College and East Los Angeles College		

Program-Title	Project Lead The Way - Knight HS	STEM Inventory	Entry# 217
Org-Type	CTE		
Lead	William Knight High School	PoC	N/A
PoC-Phone	661-533-9000	PoC-Email	www.khshawks.org
Address	37423 70th Street E Palmdale, CA 93552		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Project Lead The Way provides engineering technology curriculum. ROP Classes offered through Antelope Valley ROP		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Project Lead The Way - Lancaster HS	STEM Inventory	Entry# 218
Org-Type	CTE		
Lead	Lancaster High School	PoC	Stephanie Tope
PoC-Phone	661-726-7649	PoC-Email	N/A
Address	44701 32nd Street West Lancaster, CA 93536		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Project Lead The Way provides engineering technology curriculum. ROP classes offered through Antelope Valley ROP. Rop classes in Children 1&2; Childcare Occupations; Entertainment and Fashion Marketing and Fashion Projects. School-to-Career Aviation Career Pathway and Air Force Junior ROTC Program. Pre-Engineering Pathway courses and Business/Industrial Technologies Department.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	The Medical/Visual & Performing Arts Academy	STEM Inventory		Entry#	219
Org-Type	CTE				
Lead	Palmdale High School	PoC	Linda Noteboon; Tim Klein, Coordinator		
PoC-Phone	661-273-3181 ext 606	PoC-Email	N/A		
Address	2137 E. Avenue R Palmdale, CA 93550				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	300	Demographics	Black or African American|Hispanic or Latino|Other		
Content	Industrial Technology courses in Consumer and Family Science. Child Development Interior Design. Automotive Technology and Construction. Business and Industrial Technology courses.				
Outcomes	Retreats, Integrated Programs				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation to worksite				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Career Pathways In Drafting- Sierra Vista HS	STEM Inventory	Entry# 220
Org-Type	CTE		
Lead	Sierra Vista High School	PoC	Staacy Merrick, Department Chair and Teacher
PoC-Phone	626-960-7741 ext. 2204	PoC-Email	N/A
Address	3600 Frazier Avenue Baldwin Par, CA 91706		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	Asian and/or Pacific Islander|Hispanic or Latino
Content	Career pathways in Drafting and Sales & Marketing; Business; Accounting; Office Technology; Virtual Enterprisse; and Drafting (Basic, Intermediate an Advanced) ROP classes ofered through East San Gabriel Valley ROP.		
Outcomes	Workshops		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antino and Citrus Colleges		

Program-Title	Career Pathways in Computer Technology -	STEM Inventory	Entry# 221
Org-Type	CTE		
Lead	Bassett High School	PoC	Linda Howard
PoC-Phone	626-931-2800 ext. 3659	PoC-Email	lhoward@bassett.k12.ca.us
Address	751 Ardilla Avenue La Puenta, CA 91746		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Career pathways in Computer technology, Information Technology, Child Development Technology, Health Academy Technology, and Visual and Performing Arts.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Classes in Business and Finance Technology -	STEM Inventory	Entry# 222
Org-Type	CTE		
Lead	Bellflower High School	PoC	N/A
PoC-Phone	562-920-1801	PoC-Email	www.busd.k12.ca.us/schools/bhs.com
Address	15301 S. McNab Avenue Bellflower, CA 90706		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP Classes in Business and Financial Technology, Industrial Technology, and Communication and Arts Technology; and Family and Consumer Science. ROP classes offered through Los Angeles County Regional Occupational program.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Sequential Courses in Business - Mayfair	STEM Inventory	Entry# 223
Org-Type	CTE		
Lead	Mayfair High School	PoC	N/A
PoC-Phone	562-925-9981	PoC-Email	www.busd.k12.ca.us/mayfair-high
Address	6000 N. Woodruff Avenue Lakewood, CA 90706		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Sequential courses in Business and Financial Technology, Industrial Technology and Communication and Arts Technology. ROP classes offered through Los Angeles County Regional Occupational program.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	San Antino ROP - Bonita HS		
Org-Type	CTE		
Lead	Bonita High School	PoC	Marlyn Pollock, Director of Student Support Services
PoC-Phone	909-971-8220 ext 5320	PoC-Email	www.bonita.k12.ca.us/bonita
Address	3102 D. Street La Verne,CA 91750		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through San Antino ROP. Classes in Video I & II; Child Care; Diversified Occupations; Computer Technology, Hospitality; Auto Technology; and Law/CSI.II		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Practical Arts Department - Burbank HS	STEM Inventory	Entry# 225
Org-Type	CTE		
Lead	Burbank High School	PoC	Allison Edge, Academy Director
PoC-Phone	818-558-4700 ext 53950	PoC-Email	N/A
Address	902 N. Third Street Burbank, CA 91502		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Practical Arts Department: Business Education (ROP Business management, Digital Applications, ROP Virtual Enterprise) Computer Science; Vocational Technology. ROP Travel Occupations		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	California Partnership Academy - Leuzinger	STEM Inventory	Entry# 226
Org-Type	CTE		
Lead	Leuzinger High School	PoC	Scott Samuel
PoC-Phone	310-263-2325	PoC-Email	N/A
Address	4118 Rosecrans Avenue Lawndale, CA 90260		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	California Partnership Academy: Environmental Careers		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Career sequences ROP classes - Culver City	STEM Inventory	Entry# 227
Org-Type	CTE		
Lead	Culver City High School	PoC	Aziva Monosson, ROP Counsselor
PoC-Phone	310-842-4200 ext. 3313	PoC-Email	N/A
Address	4401 Elenda Street Culver City, CA 90230		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	1250	Demographics	Hispanic or Latino|Other
Content	Career sequences ROP classes through Los Angeles County Office of Education (LACO/ROP. Will launch Project Lead The Way (math, science, technology curriculum) in 2008		
Outcomes	County sponsored workshops		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: transportation to worksite		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	ROP classes through LACO/ROP - El Monte	STEM Inventory		Entry#	228
Org-Type	CTE				
Lead	El Monte High School	PoC	N/A		
PoC-Phone	626-444--7701 ext. 5050	PoC-Email	www.emuhsd.k12.ca.us/schools/sar/cs/0607/emhs_satc.pdf		
Address	3048 N. Tyler Avenue El Monte, CA 91731				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	ROP classes through Los Angeles County Office of Education (LACO/ROP) CTE courses in Business, Family & Consumer Science, and Industrial Technology.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	LACO/ROP - Arroyo		STEM Inventory	Entry#	229
Org-Type	CTE				
Lead	Arroyo High School	PoC	Marging Burg		
PoC-Phone	626-4449201 ext 5371	PoC-Email	N/A		
Address	4921 N. Cedar Avenue El Monte, CA 91732				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	764	Demographics			
Content	ROP classes through Los Angeles County Ofice of Education (LACO/ROP). CTE courses in Business, Family & Consumer Science, and Industrial Technology.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	LACO/ROP - Mountain View		STEM Inventory	Entry#	230
Org-Type	CTE				
Lead	Mountain View High School	PoC	N/A		
PoC-Phone	626-258-4600	PoC-Email	www.emuhsd.k12.ca.us/sschools/sarcs/0607/mvhs_sarc.pdf		
Address	2900 Parkway Drive El Monte, CA 91732				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	442	Demographics			
Content	ROP classes through Los Angeles County of Education (LACO/ROP) CTE courses: Business, Family & Consumer Sciences, and Industrial Technology.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	LACO/ROP - Rosemead		STEM Inventory	Entry#	231
Org-Type	CTE				
Lead	Rosemead High School	PoC	N/A		
PoC-Phone	626-286-3141	PoC-Email	www.emuhsd.k12.ca.us/schools/sarcs/0607/semhs_sarc.pdf		
Address	1001 Durfee Avenue South El Monte, CA 91733				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	578	Demographics			
Content	ROP classes through Los Angeles County Office of Education (LACO/ROP) CTE courses: Business, Family & Consumer Sciences, and Industrial Technology.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	LACO/ROP - South El Monte		STEM Inventory	Entry#	232
Org-Type	CTE				
Lead	South El Monre High School	PoC	N./A		
PoC-Phone	626-442-0218	PoC-Email	www.emuhsd.k12.ca.us/schools/sarcs/0607/semhs_sarc.pdf		
Address	1001 Durfee Avenue South El Monte, CA 91733				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	565	Demographics			
Content	ROP classes through Los Angeles County Office of Education (LACO/ROP). CTE courses:Business, Family & Consumer Sciences, and Industrial Technology.				
Outcomes					
Started		Funded-Through			
Length		Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Career Clusters - Glendale	STEM Inventory	Entry# 233
Org-Type	CTE		
Lead	Glendale High School	PoC	Beatriz Virsak
PoC-Phone	818-246-4984	PoC-Email	N/A
Address	1440 E. Broadway Glendale, CA 91205		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Career Cluster in Business, Industrial Technology, Child Development Computer Assisted Drafting, Technial Theater, Comm. Multi-Media and Photography. ROP classes offered through Los Angeles County Office of Education (LACO/ROP)		
Outcomes	Work with Junior Achievement to enable students to teach economics at local elementary schools.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	A School-to-career magnet program	STEM Inventory	Entry# 234
Org-Type	CTE		
Lead	William Workman High School	PoC	N/A
PoC-Phone	626-933-8864	PoC-Email	www.hlpusd.k12.ca.us
Address	16303 E. Temple Street City of Industry, CA 91744		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Environmental Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	580	Demographics	
Content	Workman Tech, a school-to-career magnet program has classes organized into pathways: Arts and Commuication. Health and Environmental Sciences. ROP classes include: Webpage Design, Graphics, Video Production and Broadcasting.		
Outcomes	CPA		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials	Cross-curriculum collaboration		
Other-Funding			
How-Assessed	CPA evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	California Partnership Academy - David Starr	STEM Inventory		Entry#	235
Org-Type	CTE				
Lead	David Starr Jordan High School	PoC	Sabrina Arney		
PoC-Phone	562-423-1471 ext 2452	PoC-Email	N/A		
Address	6500 Atlantic Avenue Long Beach, CA 90805				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Other				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	195	Demographics	Black or African American|Hispanic or Latino		
Content	California Partnership Academy - Aspirations in Medical Science				
Outcomes	Counseling, Tutoring and Mentoring				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Other	Primary-$			
Materials					
Other-Funding					
How-Assessed	CPA evaluation				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Partnership with Diabetes Association for volunteer work. Veterans Administration, and long Beach Memorial Hospital.				

Program-Title	Career Sequences - Robert A. Millikan	STEM Inventory	Entry# 236
Org-Type	CTE		
Lead	Robert A. Millikan High School	PoC	N/A
PoC-Phone	562-245-7441 ext.4806	PoC-Email	www.millikanhigh.com
Address	2800 Snowden Avenue Long Beach, CA 90815		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	1,715	Demographics	
Content	Career sequences through Small Learning Communities (SLC's)Career-focused SLC's are COMPASS (Community of Musicians, Performers Artist and Social Scientist): Global Technology Academy (computer applications and technology): Millikan Business Academy. ROP classes offered through Long Beach ROP. ROP classes in exploring teaching and applied technology.		
Outcomes	Industry specific and general CTE standards training.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials	Academic and vocational teachers work collaboratively to link curriculum and instruction.		
Other-Funding	Support Services for Students: Career counseling, vocational education career specialist.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Business and Technology Department ROP	STEM Inventory	Entry# 237
Org-Type	CTE		
Lead	Woodrow Wilson High School	PoC	N/A
PoC-Phone	562-433-0481	PoC-Email	www.ibusd.k12.ca.us/wilson
Address	4400 E. 10th Street Long Beach, CA 90813		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Business and Technology Department ROP classes offered through Long Beach ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Career Center CSU Long Beach EIS Talent Search representative		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Paths to the Future		STEM Inventory	Entry#	238
Org-Type	CTE				
Lead	Bell High School	PoC	Tim Matheos, Vice Principal		
PoC-Phone	323-560-1800 ext.277	PoC-Email	N/A		
Address	4328 Bell Avenue Bell, CA 90201				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Engineering|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	Transitioning to small learning communities called "Paths to the Future", will create 18 career path academies in Liberal Arts Humanities. Fine Arts, Media and Entertainment; Science Computers, integrated Technology, Engineering, Sports, Health and Recreation, Internal Relations and Business.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Paths to the Future - Bell	STEM Inventory	Entry# 239
Org-Type	CTE		
Lead	Bell High School	PoC	Tim Matheos
PoC-Phone	323-560-1800 ext. 277	PoC-Email	N/A
Address	4328 Bell Avenue Bell,CA 90201		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Transitioning to small learning communities called "Paths to the future" , will create 18 career path academies in Liberal Arts Humanities, Fine Arts, Media and Entertainment, Science, Computers, integrated Technology, Engineering, Sports, Health and Recreation, International Relations and Business.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Machine Tool Technology - Chatsworth	STEM Inventory	Entry# 241
Org-Type	CTE		
Lead	Chatsworth High School	PoC	Bruce Pina
PoC-Phone	818-678-3400 or 818-341-6211	PoC-Email	N/A
Address	10027 Lurling Avnenue Chatsworth, CA 91311		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Machine Tool Technology		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Information Technology Academy - Downtown	STEM Inventory	Entry# 242
Org-Type	CTE		
Lead	Downtown Business Magnet HIgh School	PoC	N/A
PoC-Phone	213-481-0371	PoC-Email	N/A
Address	1081 West Temple Street Los Angeles, CA 90012		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Information Technology Academy		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Information Technology Academy - Foshay	STEM Inventory	Entry# 243
Org-Type	CTE		
Lead	Foshay Learning Center	PoC	Leslie Aaronson
PoC-Phone	323-373-2700	PoC-Email	N/A
Address	3751 S. Harvard Blvd. Los Angeles, CA 90018		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	Pre-School|Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Information Technology Academy		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Other	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Small Learning Communities	STEM Inventory	Entry# 244
Org-Type	CTE		
Lead	Monroe High School	PoC	N/A
PoC-Phone	818-895-6257	PoC-Email	www.monroe.lausd.k12.ca.us/glsys
Address	9229 Haskell Avenue North Hills, CA 91343		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Small Learning Communities: Arts, Media and Entertainment; EEducation, Child Development, and Family Services: Engineering an Design; Hospitality. Tourism and Recreation, Public Services (ire Academy).		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Small Learning Communities - Monroe	STEM Inventory	Entry# 245
Org-Type	CTE		
Lead	Monroe High School	PoC	N/A
PoC-Phone	818-895-6257	PoC-Email	www.monroe.lausd.k12.ca.us/glsys
Address	9229 Haskell Avenue North Hills, CA 91343		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Samll Learning Communities: Arts, Media and Entertainment; Education, Child Development anD Family Services; Engineering and Design; Hospitality, Tourism, and Recreation, Public Services (Fire Academy)		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Small Learning Communities - North Hollywood	STEM Inventory	Entry# 246
Org-Type	CTE		
Lead	North Hollywood High School	PoC	N/A
PoC-Phone	310-257-7100	PoC-Email	www.nhhs.net
Address	5231 Colfax Avenue North Hollywood, CA 91601		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Small Learning Communities - 8 academies (Acquiring Biklingual Leaders in Education, Da Vinci Arts and Sciencea, Entertainment and Media Academy. Environmental Health and Awareness Academy, Home Engineering Academy.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Math Science Magnet - Washington Prep	STEM Inventory	Entry# 247
Org-Type	CTE		
Lead	Washington Prep High School	PoC	Ken Hood, CTE Director
PoC-Phone	3223-418-4000	PoC-Email	N/A
Address	10860 S. Denker Avenue Los Angeles, CA 90047		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Communication Arts and Math Science Magnet		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	LACO/ROP - Lynwood		STEM Inventory	Entry#	248
Org-Type	CTE				
Lead	Lynwood High School	PoC	Ellen Myers, ROP Assistant		
PoC-Phone	310-886-7170	PoC-Email	N/A		
Address	4050 Imperial Highway Lynwood, CA 90262				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	1,000	Demographics	Asian and/or Pacific Islander|Black or African American		
Content	Classes in Automotive Technology, Banking Occupations, Building Construction, Commercial Photography,Computer Applications, Chil Care Occupations, Medical Assistant. ROP classes offered through Los Angeles County Office of Education.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: ROP Counseling				
How-Assessed	Supervisors must check off a checklist based on in-class observations, teacher evaluations, textbooks, up to code and enough material				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Used to have with CSU Dominguez Hills, El Camino and Cerritos Community Colleges. Needs to update agreements.				

Program-Title	Environment Science Academy - Wilson		STEM Inventory	Entry#	249
Org-Type	CTE				
Lead	Wilson High School	PoC	Kevin Bryan		
PoC-Phone	323-223-1131 ext 588	PoC-Email	N/A		
Address	4500 Mulnomah Street Los Angeles, CA 90032				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Environmental Science				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	Natural Resources and Environmental Science Academy				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Other	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Career Pathways - Bell Gardens		STEM Inventory	Entry#	250

Org-Type	CTE		
Lead	Bell Gardens High School	PoC	Rick Espinoza, ROP Coordinator
PoC-Phone	323-826-5151	PoC-Email	espinoza _rick@montebello.k12.ca.us
Address	6119 Agra Street Bello Gardens, CA 90201		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	1,000	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other
Content	Career Pathways in Health Careers, Future Educators, Computer Graphics and Computer Applications; Culinary Arts & Food Service; Automotive Technology (2/3 of CTE/ROP classes are offered after school because time is needed to provide additional content and meet higher standards. 10-12 after-school classes are offered on Saturdays, with very high turnouts.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling at career centers		
How-Assessed	Standard school evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Cerritos, Rio Hondo and East LA Colleges		

Program-Title	Technology Education		STEM Inventory	Entry#	251
Org-Type	CTE				
Lead	Norwalk High School	PoC	Vanessa Iqueinta		
PoC-Phone	562-868-0431	PoC-Email	N/A		
Address	11356 E. Leffingwell Road Norwalk, CA 90650				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	Technology Education, Aeronautics Academy, Millennium Project 2 Academy, Business Academy, Fine Arts Academy. ROP classes offered through Southeast ROP.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	ROP Classes - Palos Verdes		
Org-Type	CTE		
Lead	Palos Verdes Penninsula High School	PoC	Mitsy Cress, Associate Principal of Counseling
PoC-Phone	310-377-4888 ext 273	PoC-Email	N/A
Address	27118 Silver Spur Road Rolling Hills Estates, CA 90274		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through Southern California Regional Occupation Center (SCROC). On-sire courses in Media and Design, Photography, Medical Technology//Engineering and Design (Science Research) and Media Support Services (Web Page Production)		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: College and career counseling additional support services at SCROC main campus.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	ROP Classes - John Marshall	STEM Inventory	Entry# 253
Org-Type	CTE		
Lead	John Marshall Fundamental High School	PoC	Linda Morton, ROP Counselor
PoC-Phone	626-798-0713 ext 157	PoC-Email	Morton_linda@lacoropmail.org
Address	990 N. Allen Pasadena, CA 91104		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	137	Demographics	
Content	ROP classes offered through Los Angeles County Office of Education (LACO/ROP) Computer Science, Automotive, Photography, Video, Televsision Production, Medical Assistant Class at North-West College in which approximately 15 students attend.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed	LACO-ROP evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	San Antino ROP - Ganesha	STEM Inventory	Entry# 254
Org-Type	CTE		
Lead	Ganesha High School	PoC	Marie Dennis
PoC-Phone	909-397-4400	PoC-Email	N/A
Address	1151 Fairplex Drive Pomona, CA 91768		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	Industry specific and general CTE standards training.		
Served-per-Year		Demographics	
Content	ROP classes offered through San Antonio ROP. Construction Technology course recently established. Developing structure within each curricular area.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Each class must complete a training plan and students must meet plan requiments. They are tested throughout the course and year to receive a certificate of completion at the end of the course. If class is industry certified, students must take a test for		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antonio College and pending with Chaffey College. Working to improve in this area.		

Program-Title	San Antino ROP - Ganesha	STEM Inventory	Entry# 255
Org-Type	CTE		
Lead	Ganesha High School	PoC	Marie Dennis
PoC-Phone	909-397-4400	PoC-Email	N/A
Address	1151 Fairplex Drive Pomona, CA 91768		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	Industry specific and general CTE standards training.		
Served-per-Year		Demographics	
Content	ROP classes offered through San Antonio ROP. Construction Technology course recently established. Developing structure within each curricular area.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Each class must complete a training plan and students must meet plan requiments. They are tested throughout the course and year to receive a certificate of completion at the end of the course. If class is industry certified, students must take a test for		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antonio College and pending with Chaffey College. Working to improve in this area.		

Program-Title	Media & Technology		STEM Inventory	Entry#	256

Org-Type	CTE		
Lead	Village Academy High School	PoC	Marie Dennia or Mary Eddington Assistant 909-397-4715 ext 4155
PoC-Phone	909-937-4900	PoC-Email	N/A
Address	1444 E. Holt Avenue Pomona, CA 91767		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	409	Demographics	
Content	Media & Technology, Public Service , Health & Wellness and Hospitality. ROP classes offered through Mount San Antonio ROP. For students majoring in Multimedia and Technology, electronics courses available at Mt. San Antonio College.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Each class must complete a training plan and students must meet plan requirements. They are tested throughout the course and year to receive a certificate of complation at the end of the course. If a class is part of an articulation agreement, course must		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antonio College and pending with Chaffey College. Working to improve in this area.		

Program-Title	SCROC- Redondo Beach		STEM Inventory	Entry#	257
Org-Type	CTE				
Lead	Redondo Beach High School	PoC	Ken Yoshioka, Director of Applied Technical Education		
PoC-Phone	310-798-8665 ext 4066	PoC-Email	N/A		
Address	631 Vincent Park Redondo Beach,CA 90277				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives	Follows district mandated professional development requirements				
Served-per-Year	1,000	Demographics	Other		
Content	Computers, website building, construction technology, media arts, culinary arts and fashion design. ROP classes offered through Southern California Regional Occupation Center (SCROC). ROP photography class.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed	Standard evaluation for teachers and classes				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	El Camino College				

Program-Title	Buiness Technology	STEM Inventory	Entry# 258
Org-Type	CTE		
Lead	John A. Rowland	PoC	Armando Ayala, ROP Guidance Specialist
PoC-Phone	626-965-3448	PoC-Email	aagousa@yahoo.com
Address	2000 S. Otterbain Rowland Heights, CA 91748		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	400	Demographics	
Content	Business Department: Accounting, Advanced Accounting, Business Technology & Management, Internet/Web Design, Information Technology, and Marketing with a business career certification program. Family and Consumer Sciences Department. Life Management, Special Projects, Fashion Design, Restaurant Occupations, Classes in Automotive Technology, Design Technology, Construction Technology I AND II. ROP classes offered through La Puente Valley ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	LACO/ROP - Gabrielino	STEM Inventory	Entry# 259
Org-Type	CTE		
Lead	Gabrielino High School	PoC	Rosa Valdez, Assistant Principal
PoC-Phone	626-573-2453 ext 332	PoC-Email	N/A
Address	1327 South San Gabriel Blvd. San Gabriel, CA 91776		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through Los Angeles County Office of Education (LACO/ROP). Industrial/Technical Education classes: Engineering; Advanced Computer Applications; Intro to Business; and Woodshop.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	LACO/ROP - San Marino		STEM Inventory	Entry#	260

Org-Type	CTE		
Lead	San Marino High School	PoC	Shawna Soltis, ROP Coordinator
PoC-Phone	626-299-7020 ext. 325	PoC-Email	N/A
Address	2701 Huntington Drive San Marino, CA 91108		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	Work-based learning at school. School-to-work provides paid work for students. Project-based learning depends on classes. Partnerships with local businesses.		
Served-per-Year	402	Demographics	Asian and/or Pacific Islander|Other
Content	ROP classes offered through Los Angeles County Office of Education (LACO/ROP). Informal career pathway in Business and Arts. 14 classes in fields of Law, TV Production, Technology Applications, Graphic Design, Computer Assisted Drafting/Design. Computer Programming, Small Business Management, Commercial Photography, Commercial Art, Office Occupation and Retail Sales Occupation		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Student Surveys		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	LACO/ROP - South Pasadena	STEM Inventory	Entry# 261
Org-Type	CTE		
Lead	South Pasadena High School	PoC	N/A
PoC-Phone	626-441-5820 EXT 2991	PoC-Email	www.sphs.spusd.net
Address	1401 Fremont Avenue South Pasadena, CA 91030		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	Graphic design and virtual business classes		
Served-per-Year	566	Demographics	
Content	ROP classes offered through Los Angeles County Office of Education (LACO/ROP). Banking Occupations, Computer Assisted Drafting, Emergency Medical Responder. Eary Childhood Education, Culinary Arts, Television Production, Computer Technology.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Career center counseling		
How-Assessed	Job placement, post secondary education or the military		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	SCROC/ROP - South HS		STEM Inventory	Entry#	262
Org-Type	CTE				
Lead	South High School	PoC	Michael Ellena or Jeffrey Lynn ext 7439		
PoC-Phone	310-533-4352	PoC-Email	N/A		
Address	4801 Pacific Coast Highway Torrance, CA 90505				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	200	Demographics	Asian and/or Pacific Islander|Other		
Content	ROP classes offered through Southern California Regional Occupation Center (SCROC). Electives support technology, automotive industry, and hospitality. Culinary Acadmey.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation to job site and career center services				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	L.A. Harbor and El Camino Colleges				

Program-Title	East San Gabriel Valley ROP - Diamond Bar	STEM Inventory	Entry# 263
Org-Type	CTE		
Lead	Diamond Bar High School	PoC	N/A
PoC-Phone	909-594-1405 ext. 33398	PoC-Email	www.walnutvalley.k12.ca.us/dbhs
Address	21400 E. Pathfinder Road Diamond Bar, CA 91765		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Math|Technology|Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through the East San Gabriel Valley ROP: Health, Art, Cosmetology, Forsenic Science and Sports Entertainment and Marketing. Architecture and graphisc classes. Brahma Tech program (math,science, and technology-based). Fine Arts Academy (visual arts curriculum).		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	ROP East San Gabriel Valley - Walnut	STEM Inventory	Entry# 264
Org-Type	CTE		
Lead	Walnut HIgh School	PoC	Candice Marsano, Career Center at 909-598-2312
PoC-Phone	909-594-1333	PoC-Email	cmarsano@walnutvalley.k12.ca.us
Address	400 N. Pierre Road Walnut, CA 91789		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through the East San Gabriel Valley ROP: Child Development; Public Safety; Sports Medicine, Animal Science, Forsenic Sciences, Vocational classes in Computer Applications/Keyboarding; Digital Video/Technology Lab and Advanced placement ir Computer Science.		
Outcomes	Fall/Spring Conferences, ROP workshops, meetings with industry professionals.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Transportation, counseling and tutoring		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Mount San Antonio and Citrus Community Colleges		

Program-Title	ROP San Gabriel Valley - West Covina		STEM Inventory	Entry#	265
Org-Type	CTE				
Lead	West Covina High School	PoC	Karen Kavoossi		
PoC-Phone	626-859-2900 ext. 3937	PoC-Email	kkavoossi@wcusd.org		
Address	1609 E. Cameron Avenue West Covina, CA 91791				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	General Science|Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	ROP classes through the East San Gabriel Valley ROP. Culinary Arts (Food and Bistro); Fashion; Business (Intoduction to Computers), Graphics Arts; Career paths in Science and Technology.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation, career planning and counseling.				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	Tri-Cities ROP - California HS		STEM Inventory	Entry#	266

Org-Type	CTE		
Lead	California High School	PoC	Ricardo Alvarez
PoC-Phone	562-698-8121 ext. 3325	PoC-Email	N/A
Address	9800 S. Mills Avenue Whittier, CA 90604		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	450	Demographics	
Content	ROP classes through Tri-Cities ROP: Automotive Technology Academy in partnership with ROP. Additional ROP courses in computer repair and neworking offer certification preparation opportunities. Career academies in Business, Health and Hospitality House/Culinary Arts.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Tri-Cities ROP - Pioneer		STEM Inventory	Entry#	267

Org-Type	CTE		
Lead	Pioneeer High School	PoC	Leticia Cervantes-Lopez, Director
PoC-Phone	562-698-8121 ext. 5999	PoC-Email	N/A
Address	10800 E. Benavon Street Whittier, CA 90606		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through Tri-Cities ROP: Administration of Justice, Automotive Technology, Forsenic Science, Introduction to Medical Careeers, Printing Careers and Careers in Education. Classes in Graphic Design, 3-D Design, Web Design and Digital Arts.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Tri-Cities ROP - Santa Fe		
Org-Type	CTE		
Lead	Santa Fe High School	PoC	N/A
PoC-Phone	562-864-2516	PoC-Email	www.wuhsd.k12.ca.us/whittiersfhs
Address	10400 S. Orr and Day Road Whittier, CA 90670		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Classes in business, computers industrial technology (wood, auto, drafting). ROP classes offered through Tri-Cities ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Tri-Cities ROP - Whittier		STEM Inventory	Entry#	269
Org-Type	CTE				
Lead	Whittier High School	PoC	N/A		
PoC-Phone	562-698-8121 ext. 2164	PoC-Email	www.wuhsd.k12.ca.us/whittierhs		
Address	12417 E. Philadelphia Street Whittier, CA 90601				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	690	Demographics			
Content	ROP classes offered through Tri-Cities ROP: computerized office training, automotive technology, medical careers, and administration of justice pathways. Food and Drafting programs.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	CTE and ROP - William Hart		STEM Inventory	Entry#	270
Org-Type	CTE				
Lead	William S. Hart Union School District	PoC	Ron Rudzinski		
PoC-Phone	661-259-0033	PoC-Email	N/A		
Address	21515 Centre Pointe Pkwy Santa Clarita, CA 91350				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives	Through California Industrial Technical Educational Association , L.A. County ROP, California Industrial Technology and Education Assoication. Seeking additional funding for teachers to attend conferences.				
Served-per-Year	2,000	Demographics			
Content	CTE and ROP classes in Agriculture, Business/Office, Consumer and Family Services, Health, Childcare, Arts/Communication/and Service, Industrial Technology. Approximately 175-225 courses district-wide. Career visions program for students with special needs.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	In the process of setting up an articulation agreement wth College of the Canyons for automotive courses.				

Program-Title	11 Career Pathways in Arts and Media - Saugus	STEM Inventory		Entry#	271
Org-Type	CTE				
Lead	Saugus High School	PoC	Nancy Heinisch, Career Counselor		
PoC-Phone	661-297-3900 ext. 260	PoC-Email	N/A		
Address	21900 W. Centurion Way Saugus, CA 91350				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology|Other				
Level	High School (9-12th grade)				
Other-Objectives	Work-based learning, conferences				
Served-per-Year	437	Demographics	Other		
Content	11 Career Pathways in Arts and Media (Performing Arts, Public and Human Services (law, fire), Teaching, Life Sciences, Natural Resources, Fashion/Interior Design, Sports Medicine. ROP classes in automotive technology and cosmetology. Career Visions class provides additional vocational training and support for special education students.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students; Transportation				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	College of the Canyons				

Program-Title	Career Pathways - West Ranch	STEM Inventory	Entry# 272
Org-Type	CTE		
Lead	West Ranch High School	PoC	Jennifer Overdeveste, Head of Practical Arts Dept.
PoC-Phone	661-222-1220	PoC-Email	N/A
Address	26255 W. Valencia Road Stevenson Ranch, CA 91381		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	Hispanic or Latino|Other
Content	Career Pathways: Arts, Media, and Entertainment Technology; Education, Child Development; Marketing and Sales.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Mentoring		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Tri-Cities ROP - La Serna		STEM Inventory	Entry#	274
Org-Type	CTE				
Lead	La Serna High School	PoC	Anne Fitzgerald		
PoC-Phone	562-698-8121 ext 3325	PoC-Email	N/A		
Address	15301 Youngwood Drive Whittier, CA 90605				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Other				
Level	High School (9-12th grade)				
Other-Objectives	Medicine and engineering courses are integrated with academic courses using reading and writing assignments.				
Served-per-Year		Demographics			
Content	ROP classes offered through Tri-Cities ROP. Classes in Virtual Enterprise: Business Academy Computers; Intro to computers; Digital Arts Drafting, Auto and Computerized Office.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	ROP - SCROC - Torrance	STEM Inventory	Entry# 276
Org-Type	CTE		
Lead	Torrance High School	PoC	Tom Schneider
PoC-Phone	310-533-4396 ext.8065	PoC-Email	N/A
Address	2200 W. Carson Street Torrance, CA 90501		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP classes offered through Southern California Regional Occupation Center (SCROC): Practical arts, including Fashion Design, Wood Shop CAD drafting, word processing, Automtive, Video Production and Computer Applications.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Long Beach Career and Technical Education		STEM Inventory	Entry#	277
Org-Type	CTE				
Lead	Office of Career Technical Education	PoC	Christopher Clifton, Career Education Suooprt Services		
PoC-Phone	562-989-7872 ext. 292	PoC-Email	www.lbusd.k12.ca.us/district/departments/high_school/career_tech/highschool		
Address	3701 E. Willow Street Long Beach, CA 90815				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Engineering|Technology|Other				
Level	High School (9-12th grade)				
Other-Objectives	Conferences and workshops: Baldridge training; instructional strategies; CTE standards and framework; infusion of academic concepts into ROP classes.				
Served-per-Year	1,825	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other		
Content	Three Pathways in Business (accounting, banking and finance), computer applications, Consumer Sciences (culinary arts, interior design and fashion design),Energy & Utilities; Engineering & Design; Health Science & Medical Technology, Information Technology, Public Service; and Transportation, Computer Graphics,Computer Diagnostics, Industry & Technology. ROP classes are offered through the Long Beach ROP.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Government|Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Transportation, counseling, mentoring and tutoring.				
How-Assessed	Attendance, workplace jobs, skills exams, State Board competencies; workplace competencies.				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Long Beach City College for Careers with Children, auto collision, plant/landscaping, clerical/office occupations, computer business applications, construction, culinary arts, retail merchandising & sales.				

Program-Title	SCROC - Mira Costa		STEM Inventory	Entry#	278
Org-Type	CTE				
Lead	Mira Costa High School	PoC	Lauren Jeffrey, College and Career Center Counselor		
PoC-Phone	310-318-7337 ext. 5252	PoC-Email	N/A		
Address	1401 Artesia Blvd. Manhattan Beach, CA 90266				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Other				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	240-360	Demographics			
Content	Computer classes (Applications, Programming, Web Design); Photography, Woodshop, Professional Dance, and Fashion. Will be offering scientific illustration next year. Students can also take classes at the SCROC main campus.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed	Student surveys, rentention, completion. Overseen by SCROC.				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Project-based learning, internships and school-to-work through SCROC.				

Program-Title	CTE Classes - Monrovia		STEM Inventory	Entry#	279
Org-Type	CTE				
Lead	Monrovia High School	PoC	Pam Woodbery, Coordinator of CTE and ROP		
PoC-Phone	626-471-3072	PoC-Email	N/A		
Address	845 W. Colorado Blvd. Monrovia, CA 91016				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science|Other				
Level	High School (9-12th grade)				
Other-Objectives	More opportunities for ROP teachers because LA County ROP imposing standards. For CTE teachers, new standards are being implemented. ROP teachers have more training than other teachers in the school. Workshops for specific subject areas annual ROP conference.				
Served-per-Year	1,800	Demographics	Black or African American|Hispanic or Latino|Other		
Content	CTE classes in Clothing/Textiles, Computer Graphics and Animation, Video Production and Automotive. Classes offered through Los Angeles County Office of Education (LACO/ROP). Business Occupations, creative arts occupations, health occupations, home economics occupations. Developing career pathways.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: ROP college counseling, Special education students have the workability for diversified occupations program.				
How-Assessed	LA County ROP Standards evaluation.				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Pasadena, Citrus and Mount San Antonio Colleges.				

Program-Title	CTE Courses - Azusa	STEM Inventory	Entry# 281
Org-Type	CTE		
Lead	Azusa High School	PoC	Lynette, Career Center
PoC-Phone	626-815-5212 ext 3465	PoC-Email	N/A
Address	240 N. Cerritos Avenue Azusa, CA 91702		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives	All teachers are CLAD (Cross-cultural, Language, and Academic Development) trained.		
Served-per-Year		Demographics	
Content	CTE courses (combination of Azusa High School, School District and ROP) ROP Fashion; Marketing Management; Creative Fashion/Advanced Fashion; Computer Applications; Wood Construction, Interior Design. Teen living interpersonal Communications. ROP classes offered through East San Gabriel Valley/ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Career speakers, career interest survey distributed, career and college guide provided; information on internships provided.		
How-Assessed	Business Advisory Council, surveys; teacher made evaluations and department meetings.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Work Experience Program - Baldwin Park	STEM Inventory	Entry# 282
Org-Type	CTE		
Lead	Baldwin Park High School	PoC	Fern Lee
PoC-Phone	626-960-5431	PoC-Email	N/A
Address	3900 N. Puenta Avenue Baldwin Park, CA 91706		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Work experience program: Career Ware software program: career pathways and certification in electronics, computer programming, computer repair and photography. ROP classes offered through East San Gabriel Valley ROP.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Service for Students: Career Readiness Assessments		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Career Pathways - Beverly Hills		STEM Inventory	Entry#	283

Org-Type	CTE		
Lead	Beverly Hills High School	PoC	Steve Rappaport
PoC-Phone	310-229-3685 ext. 8227	PoC-Email	N/A
Address	241 Moreno Drive Beverly Hills, CA 90212		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	600	Demographics	Other
Content	Career Pathways in Marketing, Health Science (in 2007-08) and Media Arts		
Outcomes	Workshops and training.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials	Creating pathways, career day.		
Other-Funding			
How-Assessed	Perkins evaluation studies on academic achievement among working students.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Some relation with anta Monica College.		

Program-Title	CTE - John Burroughs	STEM Inventory	Entry# 284
Org-Type	CTE		
Lead	John Burroughs High	PoC	Jan Rhodes
PoC-Phone	818-558-4777 ext 62305	PoC-Email	N/A
Address	1920 Clark Avenue Burbank, CA 91506		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	ROP Vitual enterprise, Computer Science(ROP Word Processing Computer Applications, ROP Advanced Computer Applications, Computer Accounting, Computer Science, Consumer Sciences, Vocational Technology, Advanced Computer Assisted Drafting. Technica Theater, ROP Television Production and ROP Travel Occupations)		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	ROP - Lawndale		STEM Inventory	Entry#	285
Org-Type	CTE				
Lead	Lawndale High School	PoC	N/A		
PoC-Phone	310-263-3101	PoC-Email	www.centinela.schoolwisepress.com		
Address	14901 Inglewood Avenue Lawndale, CA 90260				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Computer Science				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	Business Department classes in Accounting B, Computer Applications, Computer Studies, Web Design 1&2.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	ROP Classes - El Segundo		STEM Inventory	Entry#	286

Org-Type	CTE		
Lead	El Segundo High	PoC	Tim Harrison, Career Counselor
PoC-Phone	310-615-2662 ext. 311	PoC-Email	N/A
Address	640 Main Street El Segundo, CA 90245		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Other		
Level	Retirees/Career-changers		
Other-Objectives	on the job training, interships and mentorship with local businesses (e.g. Mattel, Hyperion, Aerospace and Northrup)		
Served-per-Year	600	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other
Content	Classes in cabinet making, CAD drafting, and computer accounting. ROP classes offered through Southern California Regional Occupation Center.		
Outcomes	workshops and conferences.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Eureka (educational and career software) transportation to SCROC.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Career Pathways - Polytechnic		STEM Inventory	Entry#	287
Org-Type	CTE				
Lead	Polytechnic High School	PoC	N/A		
PoC-Phone	562-591-0581	PoC-Email	www2.lbusd.k12.ca.us/poly		
Address	1600 Atlantic Avenue Long Beach, CA 90813				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Other				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year	1,365	Demographics			
Content	Career pathways within academies and/or magnets. Vocational education classes. ROP classes offered through Long Beach ROP.				
Outcomes					
Started		Funded-Through			
Length		Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding	Support Services for Students: Counselng, workshops and individual assistance with career exploration and planning; job search skills development. Speakers from community; business and trade and technical programs. Colleges/University speakers; and field trips.				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	All CTE courses are sequenced or articulated between Polytechnic and colleges.				

Program-Title	Computer Repair, Digital Media and		
Org-Type	CTE		
Lead	Carson High School	PoC	Suzanne Botlick
PoC-Phone	310-847-6000 ext 6441	PoC-Email	N/A
Address	22328 South Main Street Carson, CA 90745		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Digital Media, Computer Repair and Networking Academy.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Computer Programming - Grant		STEM Inventory	Entry#	289

Org-Type	CTE		
Lead	Grant High School	PoC	Mel Stave, Coordinator
PoC-Phone	818-756-2700 ext 2775	PoC-Email	N/A
Address	13000 Oxnard Street Van Nuys, CA 91401		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	375	Demographics	Black or African American|Hispanic or Latino|Other
Content	Communications Magnet, 5 Pathways: Filming, TV/ News Broadcasting, Computer Programming. Xbox 360 Programming Game Design Digital Imaging/Digital Business.		
Outcomes	workshops and conferences.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government|Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	Informal evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Valley College		

Program-Title	ROP/CTE - Schurr HS	STEM Inventory	Entry# 290
Org-Type	CTE		
Lead	Schurr High School	PoC	Rick Espinoza, ROP Coordinator
PoC-Phone	323-887-3090	PoC-Email	espinoza_rick@montebello.k12.ca.us
Address	820 Wilcox Avenue Montebello, CA 90640		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	640-800	Demographics	Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Other
Content	ROP/CTE combination classes in Automotive, Banking, Commerical, Photography, Computer Application and Computer Graphics. ROP classes offered through Los Angeles Office of Education (LACO/ROP) Office Occupations. Developing career pathways.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling at career center.		
How-Assessed	Standard school evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Cerritos, Rio Hondo and East LA Colleges.		

Program-Title	LACO/ROP - Paramount	STEM Inventory	Entry# 291
Org-Type	CTE		
Lead	Paramount High School	PoC	Yolanda Genis, ROP Counselor
PoC-Phone	562-602-6060 ext.6067	PoC-Email	ygenis@paramount.k12.ca.us
Address	14429 S. Downey Avenue Paramount, CA 90723		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	CTE classes in Business Occupations, computer applications, legal clerical occupations. Home economics, Marketing Occupations, Trade and Industry Occupations. ROP classes offered through Los Angeles County Office of Education .		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	LACO/ROP - Pasadena		STEM Inventory	Entry#	292

Org-Type	CTE		
Lead	Pasaena High School	PoC	Loretta Ledezma, ROP Counselor
PoC-Phone	626-798-8901 ext. 272	PoC-Email	lledezma27@pusd.us
Address	2925 E. Sierra Madre Blvd. Pasadena, CA 91107		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives	district - level development and optional development programs.		
Served-per-Year	514	Demographics	Black or African American
Content	Program areas in Business Occupations. Creative Arts Occupations, Health Releated Occupations. Home Economics, Photography, Trade & Industry Occupations, Retail Merchandising. Classes in Computer Applications/Word Processing. ROP classes offered through Los Angeles County Office of Education. Developing career pathways, possibly by Fall 2007.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Counseling		
How-Assessed	End-of-year course surveys		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Pasaena City College.		

Program-Title	LACO/ROP - Temple City		STEM Inventory	Entry#	293

Org-Type	CTE		
Lead	Temple City High School	PoC	Laurie Bryden, Career Center and ROP Counselor
PoC-Phone	626-548-5040	PoC-Email	N/A
Address	9501 Lemon Avenue Temple City, CA 91780		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year	541	Demographics	Asian and/or Pacific Islander|Hispanic or Latino|Other
Content	Computers, Graphic Arts, Sports Therapy, First Responders, Drafting, Creative Clothing. ROP classes offered through Los Angeles County Office of Education.		
Outcomes	ROP workshops		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed	ROP follow-up and student evaluations of all classes.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	CTE courses are sequenced and articulated with Pasadena City College.		

Program-Title	SCROC - North High	STEM Inventory	Entry# 294
Org-Type	CTE		
Lead	North High School	PoC	Carl Jennings
PoC-Phone	310-533-4412 ext. 7121	PoC-Email	N/A
Address	3620 w. 182nd Street Torrance, CA 90504		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Computer Science		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	CTE classes: Future Teachers, Stage Production, Web Design, Advanced Technical Drafting, Computer Applications, Law Enforcement and Athletic Training. ROP classes offered through Southern California Regional Occupation Center. Developing additional course offerings and career planning in the furture.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials	Offsite work experience program after 4th period.		
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Career Pathways - West Ranch		STEM Inventory	Entry#	295
Org-Type	CTE				
Lead	West Ranch High School	PoC	Jennifer Overdeveste		
PoC-Phone	661-222-1220	PoC-Email	N/A		
Address	26255 W. Valencia Blvd. Stevenson Ranch, CA 91381				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics	Hispanic or Latino|Other		
Content	Career Pathways: Arts, Media and Entertainment Technology, Education, Child Development, Marketing and Sales.				
Outcomes	Job shadowing and internships through the school and business alliance.				
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding	Support Services for Students: Mentoring				
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs					

Program-Title	SCROC - 7 Districts	STEM Inventory	Entry# 296
Org-Type	CTE		
Lead	7 Districts	PoC	Vickey Westerskov
PoC-Phone	310-224-4200 ext.38	PoC-Email	vwesterskov@scroc.k12.ca.us
Address	2300 Crenshaw Blvd. Torrance, CA 90501		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	High School (9-12th grade)		
Other-Objectives	ROP offers development options on main campus		
Served-per-Year		Demographics	
Content	Classes offered mornings, afternoon, and night at SCROC, selected High Schools and off-site locations. Career clusters include: Agriculture & Natural Resources: Arts/Media & Entertainment; Finance & Business, Public & Consumer Services. Health Science & Medical Technology; and Engineering Technology and Industrial Trades.		
Outcomes	informal clooaboration on case-by-case basis		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for Students: Childcare, transportation and Career Center services. Career Assessment. Career Counseling,assistance with job search skills, job service assistance, basic skills assistance and basic skills remediation. ROP counsleors at main site, each High School has its own services.		
How-Assessed	Student surveys, retention, completion. Contact students regarding employment at 3,6 and 12 month intervals following completion ofprogram.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Over 500 on-job affiliates (500 affiliates for districts)		

Program-Title	LACOE/ROP - 22 Districts	STEM Inventory	Entry# 297
Org-Type	CTE		
Lead	22 Districts - Alhambra, Beverly Hills, Arcadia, Bellflower, Burbank, Culver City, Downey, Duarte, El Monte, Glendale, LaCanada, Lynwood, Las Virgenes, Paramount, Pasadena, San Gabriel, Santa Monica/Malibu/San Marnio, South Pasadena, and Temple City.	PoC	N/A
PoC-Phone	562-922-6850	PoC-Email	www.lacorop.org
Address	9300 Imperial Highway Downey, CA 90242		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Other		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Subject areas: Agriculture, Business, Creative Arts, Home Economics, Marketing and Trade & Industry. Occupational Clusters: Wholesale/Retail & Services; Health Services, Legal and Protective Services, Hospitality and Tourism. Scientific Research & Technical Services, Manufacturing and Arts & Communiation Services.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	Southeast ROP Partner	STEM Inventory	Entry# 298
Org-Type	CTE		
Lead	2 School District: ABC & Norwalk/LaMirada	PoC	N/A
PoC-Phone	562-860-1927	PoC-Email	www.southeastrop.com
Address	20122 Cabrillo Lane Cerritos, CA 90703		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Subject areas: Business Occupations, Cosmetology, Marketing, Health Occupations, Home Economics, Law and Security, Industrial & Technology Trades and Performing Arts Occupations.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	La Puente Valley ROP	STEM Inventory	Entry# 299
Org-Type	CTE		
Lead	3 school districts: Bassett, Hacienda, La Punente and Rowland	PoC	N/A
PoC-Phone	626-810-3300	PoC-Email	www.lpvrop.org
Address	18501 E. Gale Avenue, Ste 100 City of Industry, CA 91748		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	classes, college coursework, workshops and conferences. Staff development offered through HR Department.		
Served-per-Year		Demographics	
Content	Subject Areas: Arts & Communication, Business & Marketing, Consumer & Human Services, Health Sciences, Industrial Technology, Science Technology and Public Safety Services.		
Outcomes			
Started		Funded-Through	
Length		Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Services for students: Career assesments, guidance, and work readiness workshops.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	San Antonio ROP		STEM Inventory	Entry#	300
Org-Type	CTE				
Lead	2 School Districts	PoC	N/A		
PoC-Phone	909-971-8200 ext 5324	PoC-Email	www.sanantoniorop.com		
Address	1425 E. Hold Avenue, Ste 101 Pomona, CA 91767				
URL					
Service-Region	Southern California				
Type	Student Program				
Subjects	Technology				
Level	High School (9-12th grade)				
Other-Objectives					
Served-per-Year		Demographics			
Content	ROP classes structure into 4 Pathways: Business & Marketing, Consumer & Health Services; Human Services; and Science Technology. Career pathways are a sequence of courses designed to prepare students for career success in their chosen field, such as nursing, cosmetology, computer and business technology, video production, hospitality, automotive occupations and more.				
Outcomes					
Started		Funded-Through			
Length	Ongoing	Cost			
Primary-Funding		Primary-$			
Materials					
Other-Funding					
How-Assessed	Students can obtain a Certificate of Mastery after completion of minimum counsel hours and demonstration of competencies.				
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Work-based internships. Partnerships with Allstate Insurance, Bonita Unified School District, California State Polytechnic University, Casa Colina, Century Cable, Century Communications, Chief Auto Parts, City of Pomona, Clothestime, Country House, Country Oaks Care Center, Fairplex Child Care Center,Future Concepts, Hillcrest Homes, Kindercare, LaVerne Cable Company, Toyr-R-Us, WalMart, Inland Valley News, Payless Drug Store, etc.				

Program-Title	East San Gabriel Valley ROP	STEM Inventory	Entry# 301
Org-Type	CTE		
Lead	7 Schools Districts	PoC	N/A
PoC-Phone	626-962-5080	PoC-Email	www.esgvrop.org
Address	1501 W. Del Norte Avenue West Covina, CA 91790		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	Teachers are encouraged to pursue professional development activities and advanced studies that include instruction in research-based knowledge about teaching and learning, E.G partnership with Cal Poly Pomona instructs staff in project-based learning. Funded through Urban Rural Opportunities Grant, teachers apply to Cal Poly to receive post-graduate credits as well as in-service.		
Served-per-Year		Demographics	
Content	CTE/ROP classes are divided into career pathways: Arts and Communication, Business, Health Services; Marketing; Public Services and Technology.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Service for Students: Career assessment, child care, transportation, tutoring and mentoring,job development, and job placement.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Articulation agreements with Mt. Sierra College, Westwood College, Citrus College, Mt. San Antonio, Pasadena City College, Rio Hondo College. ESGVROP classes transferable to Citrus College, Glendale Communty College, LA Trade Tech, CSU Los Angeles, California State Polytechnic University, Azusa Pacific University, Pacific Oaks College, DeVry institute of Technology, Jones International University, ITT Technical Unversity, and Chaffey College. These agreements permit students who have successfully completed courses to enroll in training at the community college without having to repeat previousely covered material.		

Program-Title	East San Gabriel Valley ROP	STEM Inventory	Entry# 302
Org-Type	CTE		
Lead	7 Schools Districts	PoC	N/A
PoC-Phone	626-962-5080	PoC-Email	www.esgvrop.org
Address	1501 W. Del Norte Avenue West Covina, CA 91790		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives	Teachers are encouraged to pursue professional development activities and advanced studies that include instruction in research-based knowledge about teaching and learning, E.G partnership with Cal Poly Pomona instructs staff in project-based learning. Funded through Urban Rural Opportunities Grant, teachers apply to Cal Poly to receive post-graduate credits as well as in-service.		
Served-per-Year		Demographics	
Content	CTE/ROP classes are divided into career pathways: Arts and Communication, Business, Health Services; Marketing; Public Services and Technology.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-$	
Materials			
Other-Funding	Support Service for Students: Career assessment, child care, transportation, tutoring and mentoring,job development, and job placement.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Articulation agreements with Mt. Sierra College, Westwood College, Citrus College, Mt. San Antonio, Pasadena City College, Rio Hondo College. ESGVROP classes transferable to Citrus College, Glendale Communty College, LA Trade Tech, CSU Los Angeles, California State Polytechnic University, Azusa Pacific University, Pacific Oaks College, DeVry institute of Technology, Jones International University, ITT Technical Unversity, and Chaffey College. These agreements permit students who have successfully completed courses to enroll in training at the community college without having to repeat previousely covered material.		

Program-Title	Tri-City ROP	STEM Inventory	Entry# 303
Org-Type	CTE		
Lead	El Ranch & Whittier Union	PoC	N/A
PoC-Phone	562-698-9571	PoC-Email	www.tcrop.k12.ca.us
Address	12519 E. Washington Blvd. Whittier, CA 90602		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	High School (9-12th grade)		
Other-Objectives			
Served-per-Year		Demographics	
Content	Courses are divided into career pathways: Argiulture Careers, Arts, Media & Entertainment, Business & Marketing Careers, Consumer & Public Service Careers, Health Service Careers and Industrial & Technology Careers.		
Outcomes			
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding	Support Services for Students: Career Center services, job placement assistance		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Cerritos, Fullerton, Rio Hondo, Mt. San Antonio, and Los Angeles Trade Technical Colleges.		

Program-Title	Baldy View ROP
Org-Type	CTE
Lead	4 School Districts
PoC	Michael Moore
PoC-Phone	909-230-8265
PoC-Email	www.baldyviewrop.com
Address	8265 Aspen Avenue, Ste #100 Rancho Cucamonga, CA 91730
URL	
Service-Region	Southern California
Type	Student Program
Subjects	Technology
Level	High School (9-12th grade)
Other-Objectives	
Served-per-Year	
Demographics	
Content	Classes in Business/Marketing, Health, Public Service, Industry and Technology. Direct Support Professional Training. Emergency Medical Technician. Vocational EKG and Forklift Training.
Outcomes	
Started	
Funded-Through	
Length	
Cost	
Primary-Funding	
Primary-$	
Materials	
Other-Funding	
How-Assessed	
Best-Practice-Why	
Promising-Practice	
Sponsor	
Sponsor-Org	
Sponsor-Phone	
Sponsor-Email	
Other-Orgs	

Program-Title	QuickStart / Project Lead the Way / Robotics	STEM Inventory	Entry# 305

Org-Type	CTE|Higher-Education-based|Government-based		
Lead	El Camino College	PoC	David Gonzales
PoC-Phone	310-973-3170	PoC-Email	dgonzales@elcamino.edu
Address	13430 Hawthorne Blvd Hawthorne, CA 90250		
URL	http://www.PLTW.org/index.cfm		
Service-Region	Southern California		
Type	Professional Development for Teachers|Student Program		
Subjects	General Science|Math|Computer Science|Engineering|Robotics|Technology		
Level	High School (9-12th grade)		
Other-Objectives	Hands-on instruction directly linked to a variety of career paths in engineering, technology and manufacturing to keep students interested and in school while creating a pipeline of new technical workers to support the critical manufacturing base in the L.A. regior		
Served-per-Year	1200	Demographics	
Content	The project utilizes Project Lead the Way curricula, a nationally recognized pre-engineering program. PLTW is a 501(c)(3) non-profit corporation with the goal of growing the nation's technology workforce. The high school pre-engineering curricula it has developed is a standards based rigorous and relevant program utilizing hands-on project based learning that also strengthens the core academic curricula while leading to 2-year and 4-year degrees. Its foundation course, Principles of Engineering, is a project based course that teaches engineering, materials science, structural design, applied physics, automation/robotics, embedded processors, drafting and design. El Camino College has 5 engineering technology courses that parallel the PLTW courses: Principles of Engineering Technology, Introduction to Engineering Design, Electronics for engineering Technologists, Computer Integrated Manufacturing, and Engineering Design and Development. El Camino College also provides Robotics courses that teach students basic design, fabrication, assembly, an prototyping skills and that prepare them for robotics competitions. Several high schools have participated in the FIRST Robotics Competition in the past few years.		
Outcomes	Prepare future engineering and technicians with a relevant and project based curricula that will help them succeed in college and university engineering programs.		
Started	6-Jun	Funded-Through	9-Dec
Length	One-time	Cost	$750,000
Primary-Funding	Government	Primary-$	100%
Materials	Robotics kits, course materials, PCs, equipment, instructor training including travel.		
Other-Funding	None		
How-Assessed	Exams and observation		
Best-Practice-Why	Yes. PLTW supports STEM education by having the high school students participate in a hands-on, activity oriented program that utilizes team efforts. The courses, which include Computer Integrated Manufacturing and Principles of Engineering complement math and science college preparatory programs to establish a solid background in engineering and technology. PLTW takes mathematics and science out of the confined realm textbooks and into the challenges of the real world, demonstrating to students the endless possibilities that are before them.		
Promising-Practice	N/A		
Sponsor	Diane Woodruff	Sponsor-Org	CA Community College Chancellor's Office
Sponsor-Phone	916.445.8752	Sponsor-Email	info@cccco.edu
Other-Orgs	Local high schools and community business partners.		

Program-Title	Engineering Technology Degree	STEM Inventory	Entry# 306
Org-Type	Higher-Education-based		
Lead	El Camino College	PoC	Dr. Stephanie Rodriguez
PoC-Phone	310-660-3019	PoC-Email	srodriguez@elcamino.edu
Address	El Camino College Industry and Technology Dept 16007 Crenshaw Blvd Torrance, CA 90506		
URL	http://www.elcamino.edu/academics/indtech/engineeringtech/		
Service-Region	Southern California		
Type	Student Program		
Subjects	Engineering|Technology		
Level	Undergraduate		
Other-Objectives	The Engineering Technology program at El Camino College prepares students for transfer to university engineering technology programs and for employment in technical fields. By completing the degree or certificate requirements, students acquire a foundation in the Principles Of Engineering, Engineering Design, Digital Electronics, Automated Manufacturing and the application of math and science in technical fields. Careers in engineering technology involve high level technical work in the creation, production, utilization, and distribution of industrial materials, products, and processes.		
Served-per-Year	1200	Demographics	
Content	Principles Of Engineering, Engineering Design, Digital Electronics, Automated Manufacturing and the application of math and science in technical fields. Courses cover many related topics, including technology systems and engineering processes to learn how math, science, and technology impact our society; basic understanding of the design process used in engineering fields and the application of computer modeling software; an introduction to the application of electronics in engineering technology; the integration of engineering technology principles and automation in manufacturing environments; and in the capstone course, teams of students work together to design and construct solutions to engineering problems.		
Outcomes	A.S. Degree and Certificate of Completion		
Started	Continuing	Funded-Through	N/A
Length	Ongoing	Cost	$3,500
Primary-Funding	Government	Primary-$	90%
Materials	Course materials, PCs, equipment		
Other-Funding	Student tuition		
How-Assessed	Exams and observation		
Best-Practice-Why			
Promising-Practice			
Sponsor	Diane Woodruff	Sponsor-Org	CA Community College Chancellor's Office
Sponsor-Phone	916.445.8752	Sponsor-Email	info@cccco.edu
Other-Orgs	None		

Program-Title	Pete Conrad Spirit of Innovation Awards	STEM Inventory	Entry# 307
Org-Type	Non-Profit-based		
Lead	Conrad Foundation	PoC	Joshua Neubert
PoC-Phone	617-970-6650	PoC-Email	joshua.neubert@conradfoundation.org
Address	1080 Chestnut Street, Suite 11D San Francisco, CA 94109		
URL	www.conradfoundation.org		
Service-Region	All California|Nationwide		
Type	Student Program|Resources|Other		
Subjects	General Science|Math|Physics|Earth Science|Space|Environmental Science|Engineering|Robotics|Technology|Other		
Level	High School (9-12th grade)		
Other-Objectives	Entrepreneurship education is central to the Pete Conrad Spirit of Innovation Awards. This program combines science and technology with the excitement of real-world entrepreneurial ventures, and provides students the opportunity to bring their own ideas to the commercial marketplace.		
Served-per-Year	1000	Demographics	
Content	The Pete Conrad Spirit of Innovation Awards program creates a long term community connecting science and technology education with the excitement of real-world entrepreneurial ventures. Throughout the course of the year, students are provided resources and activities to develop a deep understanding of new technologies and scientific principles that can lead to revolutionary business ideas. The Conrad Foundation works with student competitors to not only create and develop solutions to important issues, but also connects them with opportunities to make their concepts a reality. Winning this competition is just the beginning.		
Outcomes	The Conrad Awards give students a new appreciation of science and technology. It also motivates the public to participate in educatio by encouraging students to learn. Through the Conrad Awards students of all ages will gain a new understanding of all areas of scientific discovery. The Conrad Awards also provide students with expertise in the business practices that are critical to creating change and driving impact in our global society.		
Started	2007	Funded-Through	2009
Length	Ongoing	Cost	free
Primary-Funding	Foundation|Donations|Other	Primary-$	100%
Materials	All resources are online.		
Other-Funding	Regional partners across the country assist in supporting this program.		
How-Assessed	Post competition surveys, continued contact with competition finalists, and product delivery to key science and technology industries.		
Best-Practice-Why			
Promising-Practice	The Pete Conrad Spirit of Innovation Awards is a very new program. There are many area still under development; however, the modular nature of the program allows us to conduct successful competitions each year while building out additional resources.		
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	The Conrad Awards are supported by a network of regional partners across the country. Museums and Science Centers in most metropolitan areas will be hosting workshops and activities for students to begin their journey in the Conrad community.		

Program-Title	San DIego Rocket Project	STEM Inventory	Entry# 308
Org-Type	Higher-Education-based		
Lead	Flometrics	PoC	Steve Harrington
PoC-Phone	760-476-2770 x510	PoC-Email	sharring@flometrics.com
Address	5900 Sea Lion Place Suite 150 Carlsbad CA 92010		
URL	www.sdsurocket.org		
Service-Region	San Diego County		
Type	Student Program		
Subjects	Engineering		
Level	Undergraduate		
Other-Objectives	To develop the next generation of Americas top rocket scientists and engineers by exposing students to the complete design build fly cycle in two or three semesters.		
Served-per-Year	Oct-40	Demographics	
Content	Students build and fly liquid and hybrid rockets.		
Outcomes	Better engineers.		
Started	2003	Funded-Through	N/A
Length	Ongoing	Cost	$10,000/yr
Primary-Funding	Other	Primary-$	FUnding is on an ad hoc basis
Materials	ROcket parts		
Other-Funding	Student fundrasing, NASA spaceGrant, Flometrics		
How-Assessed	By student placement and success in leading aerospace companies.		
Best-Practice-Why	I don't know what best practice is. Testimonial from alumni: There is nothing I can possibly say that will emphasize how vital the SDSU Rocket Project has been to my education and my career. Having been involved with the Rocket Project since conception I feel as if I know every single o-ring and lock washer on every rocket we built (which places each rocket on a level of intimacy also known as marriage). I learned how to design, build, blow-up, launch, and static fire a liquid rocket before I could legally drink. The Rocket Project significantly helped my understanding of head loss from fluid mechanics, shock formation and expansion fans from compressible flow, shock diamonds and interactions in nozzles, heat transfer in combustion chambers, structural loading due to thrust, aerodynamic drag in fluctuating densities, ballistic trajectories, computations in MathCad, testing and handling of flight hardware, propellant slosh in dynamic environments, management and leadership during hard times, and most importantly, it has given me memories that I don't expect to ever be surpassed. I became enthralled by every aspect of rocketry, which became quite apparent to the people interviewing me at NASA's Jet Propulsion Laboratory. The same people I saw on TV land the Mars Exploration Rovers were now looking at me in shock at what the Rocket Project accomplished. It was a bit surreal to have MIT graduates with PhDs working in the propulsion section ask me questions about liquid rockets. I am now working at JPL on a CEV Lunar Reentry Heatshield Test as a Systems Engineer as well as the Mechanical Lead for field testing flight hardware on the Mars Science Laboratory. My technical skills and hands-on experience from the Rocket Project was quickly recognized and praised at JPL, which allowed me to be placed as the Mechanical Lead for Field Testing soon into joining MSL. Not a day goes by still that I don't pray to be involved in a project as educational, technically challenging and rewarding as the SDSU Rocket Project. As much as I enjoy working for NASA, they could never put a rocket up in less than 4 months with 20 undergraduates and a budget equal to 4 iPods. Joey Brown NASA Jet Propulsion Laboratory		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	AIAA, UCSD, SDSU		

Program-Title	Pasadena Technology Camp	STEM Inventory	Entry# 311
Org-Type	Collaborative Group		
Lead	Mentor Mappers	PoC	Kip Rolfe
PoC-Phone	626.676.4652	PoC-Email	mentormapper@gmail.com
Address	Altadena, CA		
URL	http://www.mentormappers.com		
Service-Region	Southern California		
Type	Student Program		
Subjects	Technology		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives	Software awareness, robotics, leadership.		
Served-per-Year	25-50	Demographics	Economically disadvantaged
Content	We, Mentor Mappers are initiating a weekend program that provides computer literacy to the disadvantaged student program. As Mahatma Gandhi said that one should be the changes he/she wants to see in the world. Mentors Mappers is currently piloting technology camps for the youth of Altadena and Pasadena. We propose to work with Pasadena Unified to train the troubled youth on various software applications and robotics.		
Outcomes	To be determined		
Started	Oct-08	Funded-Through	Dec-08
Length	Ongoing	Cost	$70,000 per year
Primary-Funding	Donations	Primary-$	private
Materials	Handouts		
Other-Funding	none		
How-Assessed	through surveys and evaluation		
Best-Practice-Why			
Promising-Practice	Yes		
Sponsor	Kip Rolfe	Sponsor-Org	Mentor Mappers
Sponsor-Phone	626.676.4652	Sponsor-Email	mentormapper@gmail.com
Other-Orgs			

Program-Title	Camp SEA Lab	STEM Inventory	Entry# 312
Org-Type	Non-Profit-based		
Lead	Camp SEA Lab	PoC	Christine Gibson
PoC-Phone	831-582-3681	PoC-Email	campsealab@csumb.edu
Address	100 Campus Center, Bldg 42 Seaside, CA 93955		
URL	www.campsealab.org		
Service-Region	Central Coast		
Type	Professional Development for Teachers|Student Program		
Subjects	General Science|Biology|Physics|Environmental Science|Robotics|Technology		
Level	Middle School (5-8th grade)		
Other-Objectives			
Served-per-Year	1000	Demographics	Hispanic or Latino|Economically disadvantaged
Content	Camp SEA Lab is a marine science camp adventure for youth ages 8 - 18. Science, Education, and Adventure are the focus as SEA Campers explore the wonders of the Monterey Bay National Marine Sanctuary. The mysteries of the oceans are revealed through hands-on activities above, beside, and below the water's surface. Camp SEA Lab presents programs for school groups, week-long day and residential summer camps, and family and teacher workshops.		
Outcomes	Foster excitement, scientific understanding, and stewardship of our coasts and oceans.		
Started	2002	Funded-Through	2010
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	60%
Materials	Program use: scientific equipment, access to local marine research centers, adventure equipment (surfboards, snorkel gear, sail boats) Take home: notebook/journal, t-shirt, certificate		
Other-Funding	Program tuition		
How-Assessed	Pre and post evaluations are statistically analyzed by an independent department.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Adventures-By-The-Sea California Coastal Commission California Sea Grant Program California State University Monterey Bay City of Monterey, Monterey Youth Center Community Foundation of Monterey County Earth Explore Learning Adventure Elkhorn Slough National Estuarine Research Reserve (ESNERR) Foundation of the California State University Monterey Bay Hopkins Marine Station of Stanford University Kayak Connection Marine Activities, Resources & Education (MARE) program of the University of California, Berkeley's Lawrence Hall of Science Marine Advanced Technology Education (MATE) Center Maritime Museum of Monterey Multicultural Education for Resource Issues Threatening Oceans (MERITO) Program of MBNMS Monterey Bay Aquarium Monterey Bay Aquarium Research Institute (MBARI) Monterey Bay National Marine Sanctuary (MBNMS) Moss Landing Marine Laboratories National Oceanic and Atmospheric Administration (NOAA) National Science Foundation Naval Postgraduate School Phil's Fish Market Point Lobos State Reserve Recruitment in Science and Education (RISE) Program of CSUMB Santa Cruz State Parks Seymour Marine Discovery Center of Long Marine Laboratories Surfrider Santa Cruz Chapter University of California at Santa Cruz University of California Sea Grant Extension Program		

Program-Title	Virtual Mentoring Program	STEM Inventory	Entry# 313
Org-Type	Non-Profit-based		
Lead	California Space Education & Workforce Institute	PoC	Teresa Henderson
PoC-Phone	626-440-0565	PoC-Email	teresa.henderson@csewi.org
Address			
URL	www.icouldbe.org/csewi		
Service-Region	All California		
Type	Student Program		
Subjects	Engineering		
Level	Undergraduate|Graduate|Professional Development|Retirees/Career-changers		
Other-Objectives	To encourage current university students to choose a career path in aerospace, and offer them guidance on their pathway to success from an industry professional		
Served-per-Year		Demographics	
Content	The California Space Education & Workforce Institute (CSEWI) has partnered with an organization called Icouldbe.org to create a virtua mentoring website that will provide mentors with a CONVENIENT yet effective way to make a positive impact on a University student's life. Mentors and students will be matched through the virtual mentoring portal which is administered by Icouldbe.org. Mentors will only be required to commit to 1 hour per week to correspond with the student via the platform Icouldbe.org has provided.		
Outcomes			
Started	2008	Funded-Through	1/31/2009
Length		Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Icouldbe.org		

Program-Title	Satellites & Education	STEM Inventory	Entry# 314
Org-Type	Non-Profit-based		
Lead	Satellite Educators Association	PoC	Dr. Paula Arvedson
PoC-Phone	626-794-1640	PoC-Email	parveds@calstatela.edu
Address	Pasadena, California		
URL	www.SatED.org		
Service-Region	Nationwide		
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources		
Subjects	General Science|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Technology		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Graduate|Teacher Certification|Professional Development		
Other-Objectives	For teachers and pre-service teachers: better trained in integration of STEM with career goals using satellites and satellite data For K-1 Students (in M.Y. S.P.A.C.E.): inquiry skills, scientific method, leadership skills, collaborative skills, global awareness and appreciation for other cultures		
Served-per-Year	800	Demographics	Economically disadvantaged
Content	The focus of SEA is to provide the internationally recognized, premier conference for educators interested in discovering ways to use satellites and related technologies as a vehicle for helping students appreciate and understand the complex interrelationships among science, technology, individuals, societies and the environment while developing and applying inquiry and technology skills to study authentic questions and problems. It connects teachers with their students' future employers - the space industry and government - tc better prepare the students for today's most promising careers.		
Outcomes	Better trained, energized and inspired teachers More students choosing STEM careers		
Started	1987	Funded-Through	Dec-09
Length	Ongoing	Cost	
Primary-Funding	Donations	Primary-$	95%
Materials	NOAA and NASA educational materials and resources; aerospace educational materials, promotionals and resources; CSULA educational resources and networking; lesson plans		
Other-Funding	NOAA; NASA, and several aerospace companies provide donations		
How-Assessed	surveys, interviews, small group evaluations		
Best-Practice-Why	Yes. "Bet conference I've ever attended" "The only conference I've attended where every session was worthwhile" "The high school students' report on their global research knocked my socks off!" Surveys showed 100% satisfaction at excellent or above		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	NOAA; NASA; Northrop Grumman; AIAA; Boeing; Lockheed Martin, Raytheon; California State University at Los Angeles		

Program-Title	Zia Spacecraft Recovery & Bayes Theorem	STEM Inventory	Entry# 315
Org-Type	Higher-Education-based		
Lead	Ohlone Community College	PoC	Eric Brachhausen
PoC-Phone	510-773-0749	PoC-Email	ebrach1@mac.com
Address	7736 Hazelnut Dr. Newark, CA 94560		
URL			
Service-Region	Nationwide		
Type	Lesson Plan		
Subjects	Math		
Level	Undergraduate		
Other-Objectives	Collaborative problem-solving		
Served-per-Year	50	Demographics	
Content	The program consists of a lecture and an associated in-class simulation of a search for a Martian space probe lost upon return to earth The lecture portion develops the foundation for Bayes Theorem, and credits John P. Craven for his work in using Bayes Theorem to locate a lost atomic bomb and a missing nuclear submarine. The simulation portion involves two in-class teams who must collaborate to progressively establish the most probable search area for locating the space probe. The instructor supplies the basic scenario and initial conditions. The class digests this information and comes up with their initial probability estimates, which they feed into an electronically projected spreadsheet tool. This tool shows the results of the students' search pattern, while the instructor reports search results using a separate display on the classroom wall. Ultimately the students either locate the space probe within a set resource limit, or not. Either way they are rewarded with a previously constructed positive conclusion to the scenario. The entire exercise takes approximately 1 hour, including the presentation of Bayes Theorem.		
Outcomes	Understanding the power of Bayes Theorem to combine past probabilities with current data to reach a new and improved estimate of probability; hands-on collaborative experience applying the theorem instead of being confined to solving equations; experiencing the novelty of being designated as a spacecraft recovery team and having to deal with imperfect information being supplied in real time tc make the best estimate possible.		
Started	Fall 2008	Funded-Through	Spring 2009
Length	One-time	Cost	$50 materials
Primary-Funding	Academia	Primary-$	None
Materials	Powerpoint slides, Excel spreadsheet, Word documents, description of conducting scenario.		
Other-Funding	No.		
How-Assessed	Informal feedback from students.		
Best-Practice-Why	Requires further evaluation.		
Promising-Practice	Yes, but this depends on greater distribution and peer feedback.		
Sponsor	Eric Brachhausen	Sponsor-Org	Ohlone College
Sponsor-Phone	510-773-0749	Sponsor-Email	ebrach1@mac.com
Other-Orgs	Spaceport America Institute		

Program-Title	K-12 Engineering	STEM Inventory	Entry# 316
Org-Type	CTE		
Lead	Project Lead The Way California	PoC	Bruce Westermo, State Director
PoC-Phone	(619) 892-4332	PoC-Email	westermo@engineering.sdsu.edu
Address	PLTW, College of Engineering SDSU 5500 Campanile Dr San Diego, CA 92182-1326		
URL	www.pltwca.org		
Service-Region	All California|Nationwide		
Type	Professional Development for Teachers|Student Program|Lesson Plan|Resources|Other		
Subjects	Computer Science|Engineering|Robotics|Technology		
Level	Middle School (5-8th grade)|High School (9-12th grade)|Professional Development		
Other-Objectives			
Served-per-Year	300,000 nationwide	Demographics	
Content	Project Lead The Way (PLTW) are engineering, technology, and medical sciences middle and high school curricular programs that is intended to prepare students for careers in engineering and technology, to show them what the career opportunities are in these fields, and to prepare them for further education.		
Outcomes	To increase the number of US students going into engineering and technology careers		
Started	1997	Funded-Through	NA
Length	Ongoing	Cost	free to students
Primary-Funding	Foundation|Industry|Donations	Primary-$	NA
Materials	Curriculum for the courses		
Other-Funding			
How-Assessed	Each student is required to contribute to the database.		
Best-Practice-Why	Yes. We have been endorsed by the National Academy of Engineering, the National Academy of Science and the Institute of Medicine as a model curriculum for K-12 STEM education. The NDIA has also endorsed PLTW as a model program. We are in over 3,000 schools and will reach over 300,000 students this year.		
Promising-Practice			
Sponsor	Bruce Westermo	Sponsor-Org	College fo Engineering, SDSU
Sponsor-Phone	619-892-4332	Sponsor-Email	westermo@engineering.sdsu.edu
Other-Orgs	National Defense Industry Association, Aerospace Industry Association, Society of Manufacturing Engineers Education Foundation, Small Manufactureres Institute, San Diego Economic Development Corp. Sacramento Chamber of Commerce, CSU Engineering Deans, Qualcomm, Lockheed Martin, Boeing, Sony, Solar Turbines, American Electronics Association, Intel		

Program-Title	STEM Equity Pipeline	STEM Inventory	Entry# 317
Org-Type	CTE|Professional Association-based|Non-Profit-based		
Lead	National Alliance for Partnerships in Equity Ed. Foundation	PoC	Mimi Lufkin
PoC-Phone	610-593-8038	PoC-Email	mimilufkin@napequity.org
Address	3157 Limestone Road P.O. Box 369 Cochranville,PA 19330		
URL	www.stemequitypipeline.org		
Service-Region	Nationwide		
Type	Professional Development for Teachers		
Subjects	Other		
Level	Professional Development		
Other-Objectives	The projects goal is to build the gender equity capacity of professional development staff that work with faculty of STEM career cluste programs of study at the secondary and community college level.		
Served-per-Year	1500	Demographics	Women
Content	The project works with selected state teams to integrate professional development, consulting and technical assistance in gender equity into existing STEM teacher training in the state.		
Outcomes	Increase the particpation and completion of women and girls in STEM related career cluster programs of study at the secondary and community college level.		
Started	1-Oct-07	Funded-Through	30-Sep-12
Length	Ongoing	Cost	$500,000/year
Primary-Funding	Government	Primary-$	100%
Materials	Professional Development Consulting Technical Assistance		
Other-Funding			
How-Assessed	Data collected from statewide student data systems each year of participation Activity evalautions and follow-up evaluation		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	California Department of Education California Community College Chancellors Office Missouri Department of Education Oklahoma Department of Career Technical Education Iowa Department of Education Minnesota State Colleges and Universities Wisconsin Department of Public Instruction Wisconsin Technical College System Illinois State Board of Education Illinois Community College System		

Program-Title	Minor in Natural Sciences	STEM Inventory	Entry# 318
Org-Type	Higher-Education-based		
Lead	California State University Fullerton	PoC	Victoria Costa
PoC-Phone	714-278-2307	PoC-Email	vcosta@fullerton.edu
Address	800 N State College, Fullerton, CA 92834		
URL	http://nsm.fullerton.edu/scied/Minor_Nat_Science.htm		
Service-Region	Southern California		
Type	Student Program		
Subjects	General Science|Biology|Chemistry|Physics|Earth Science		
Level	Undergraduate		
Other-Objectives			
Served-per-Year	100	Demographics	
Content	CSUF offers a Minor in Natural Sciences that should be considered by all prospective elementary teachers as well as potential middle school science teachers. By completing the minor, future teachers: Gain additional preparation in science content areas; Learn about important and current concepts and issues in science; and Prepare for teaching earth, life, and physical science in middle schools. The minor readily combines with any major when the student carefully selects the appropriate lower division general education classes. Assuming efficient lower division GE science selections, the minor may require only 9-11 units of additional coursework.		
Outcomes	The primary objective for students pursuing the Natural Sciences Minor is as a stepping stone to teaching middle school science There are two credential pathways to middle school science teaching: Candidates may earn a Multiple Subject Credential and add the Foundational Level General Science Credential by passage of #118 and #119 CSET Subtests AND successful completion of EDSC 542S Advanced Methods of Teaching Middle School Science (offered each summer) Candidates earn a Single Subject Credential in Foundational Level General Science by completing the single subject credential program. The Minor in Natural Sciences helps prepare candidates in content areas of CSET subtests: #118 Subtest I General Science: Astronomy; Dynamic Processes of the Earth; Earth Resources; Waves; Forces and Motion; Electricity and Magnetism #119 Subtest II General Science: Ecology; Genetics and Evolution; Molecular Biology and Biochemistry; Cell and Organismal Biology; Heat Transfer and Thermodynamics; Structure/Properties of Matter		
Started	2006	Funded-Through	no end date
Length	Ongoing	Cost	It is part of the undergraduate education program at Cal State Fullerton.
Primary-Funding	Government|Other	Primary-$	State support and student fees comprise 100% of the cost.
Materials	Program participants receive academic advisement and career advisement.		
Other-Funding	No.		
How-Assessed	By the number of persons that complete the program and continue on to earn their science teaching credential.		
Best-Practice-Why	Yes, it is a model program. There are few such minors in the California education system and it provides participants with a solid foundation in general science.		
Promising-Practice	Yes		
Sponsor	Victoria Costa	Sponsor-Org	California State University Fullerton
Sponsor-Phone	714-278-2307	Sponsor-Email	vcosta@fullerton.edu
Other-Orgs			

Program-Title	Federation of Galaxy Explorers	STEM Inventory	Entry# 321
Org-Type	Non-Profit-based		
Lead	Federation of Galaxy Explorers	PoC	Derek Casari, Nick Eftimiades
PoC-Phone	(877) 761-1266	PoC-Email	dcasari@foge.org
Address	12609 Springloch Ct Silver Spring, MD 20904-3545		
URL	www.foge.org		
Service-Region	Nationwide		
Type	Lesson Plan		
Subjects	Earth Science|Space|Environmental Science|Engineering|Other		
Level	Middle School (5-8th grade)		
Other-Objectives	Secondary themes are taught while presenting the primary course of instruction and include the following: • Leadership skills (innovation, responsibility, inspiring people, communication) • Organizational skills (task organizing, goal setting, teamwork, leveragin technology)		
Served-per-Year	~3000	Demographics	
Content	Welcome to the coolest idea since the 20th century! The Federation of Galaxy Explorers was incorporated in the state of Maryland as a 501(c)3 non profit organization. The organization seeks to inspire and educate kids in space related science and engineering. Galaxy Explorers was created to prepare children for the future; a future that advances a space faring civilization. Kids in Galaxy Explorers attend after-school (or evening) monthly "Mission Team" meetings and periodic field trips. Adult volunteers teach Galaxy Explorers with easy to understand and fun-to-do educational material to provide a hands-on understanding of space science, earth science, engineering, and rocketry. Another primary theme - Space Citizenship - teaches the role of government, the power of citizens in a democracy, the promise of space expressed in art, writing, history, and business. Mission Team members wear uniform shirts and are rewarded for participation and achievements with ribbons, patches, medals, and certificates. Awards are an integral part of the program providing children self-esteem through achievement and recognition. The Federation of Galaxy Explorers began in 2002 with pilot program in Rock Creek International School in Washington, DC, and Prince William County schools in Virginia. In summer 2002, Galaxy Explorers hosted a summer camp with Prince William County schools. In 2003, we hosted 500 kids in 5 summer camps and nearly 400 kids in after school programs. We continue to grow. Benefits * Educate our kids - The Galaxy Explorers will prepare children for employment in the 21st century. * Galvanize support for space - Over time, Galaxy Explorers kids will grow to create a long term citizen activist force in society; shaping the national space policy, and furthering the science and engineering required to create a space faring civilization. * Economical - The concept of Galaxy Explorers is an extremely inexpensive means of educating the future generations by drawing on the volunteer spirit of America. The program provides a critical support infrastructure to motivate and educate children outside of the classroom. This infrastructure is particularly important given America's lack of classroom resources, science and math teachers, and modern day peer pressure		
Outcomes	1. Educate and inspire youth in science and engineering using the widely popular concept of space exploration as a theme. 2. Prepare children for employment in the 21st century. 3. Galvanize youth and create scientific literacy among the general population. 4. Create long term citizen activist force in society; shaping the nation's space policy and furthering the science and engineering required in society.		
Started	2002	Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry|Donations	Primary-$	70% donations; 10% membership dues; 20% program service revenues
Materials	All materials and resources are provided free of charge: 1. Loans of materials such as replica space suits, meteorite collections, robotic kits, GPS units, portable planetarium, Space Shuttle simulator, Moon Base simulation software, and scientific equip		
Other-Funding	Product sales that include telescope kits and model rockets		
How-Assessed	Survey forms to instructors, parents, and participants.		
Best-Practice-Why	Yes ---------- Testimonials: As a principal struggling to meet the demands of No Child Left Behind and still make learning an engaging, interactive and fun filled endeavor, I highly recommend Galaxy Explorers to all administrators. Our children have lost track that they are complying to a curriculum and simply enjoy learning and exploring science. Galaxy combines the natural curiosity of children with the expected content needed to attain school success. The support is provided to get the program started but is primarily parent driven. This is a format I firmly support as it brings parents into the educational paradigm and fosters the belief that learning is a home school partnership. Dr Tish Howard, Principal, Washington Mill Elementary, Alexandria VA Using the exploration of space to entice kids toward careers in science and math is ingenious. Their curiosity about spac brings them in; the fun they have building and learning and trying out new ideas--some of which work and some of which don't, keeps them coming back. Ms. Jean Wallace, Teacher, Rugate Montana Quote by 7th grader "I knew I liked to build things and I always knew I liked rockets, but I never liked science that much. Now I know that the career I want is to become an aerospace engineer." "Mr. Eftimiades My son, xxxx, possibly has Asperger's Syndrome. I don't know if you are familiar with it, but some refer to it as high-functioning Autism….I signed up as a volunteer primarily to watch my son – to make sure he wasn't disruptive, stayed in line and had fun. Well, to my amazement, he not only behaved and functioned normally, but he THRIVED. He was involved, he asked questions, he worked very well with this team, he had fun and my eyes are actually welling up with tears right now thinking back on how much fun he was having. It is truly that different of an experience for us and such as relief that there is actually something out there for him where he can be himself, be productive and be happy….." Tanya M. Baltimore, Maryland. Letter received following Moon Base One summer camp		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	* National Aeronautics and Space Administration * National Reconnaissance Office * Naval Research Labs * The Aerospace Corporatio * Raytheon Corporation * The Boeing Company * The Mitre Corporation * The Association of Lunar and Planetary Observers * American Astronautical Society * Analytical Graphics Inc. * Praxis Inc. * The Planetary Society * GarageGames		

Program-Title	San Diego County ROP	STEM Inventory	Entry# 323
Org-Type	CTE		
Lead	22 Schools Districts - Borrego Springs Unified, Carlsbad Unified, Coronado Unified, Escondido Union, Fallbrook Union, Grossmont Union, Julian Union, Mountain Empire Unified, Oceanside Unified, Palomar College, Poway Unified, Ramona Unified, San Diego Comm	PoC	Valerie Hesson
PoC-Phone	(858) 571-7243	PoC-Email	vhesson@sdcoe.net
Address	6401 Linda Vista Rd, San Diego, CA 92111		
URL	www.sdcoe.net/rop		
Service-Region	San Diego County		
Type	Student Program		
Subjects	Computer Science|Environmental Science|Engineering|Robotics|Technology		
Level	High School (9-12th grade)		
Other-Objectives	Teachers are encouraged to pursue professional development activities and advanced studies that include instruction in research-based knowledge about teaching and learning, Conferences and workshops; instructional strategies; CTE standards and framework; infusion of academic concepts into ROP classes. Strategies in recruitment and retention for special populations and non-trad careers are provided.		
Served-per-Year	25,000	Demographics	
Content	CTE/ROP classes are classified in Industry Sectors and then by career pathways. Sectors include Agriculture and Natural Resources; Arts, Media, and Entertainment; Energy and Utilities; Engineering and Design; Health Science and Medical Technology; Information Technology; Manufacturing and Product Development and Transportation. Our engineering courses use “Project Lead the Way” curriculum. A number of our courses receive a-g credit and/or graduation credit.		
Outcomes	The primary outcome is to provide training in high-skill, high-demand occupations that lead to self sufficiency.		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Government	Primary-$	
Materials			
Other-Funding	Perkins, SB70 grants, Quick Start grants, Prop 1D funds.		
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Articulation agreements with Grossmont, Cuyamaca, MiraCosta, Southwestern, Palomar, Mesa, City and Miramar Colleges. These agreements permit students who have successfully completed courses to enroll in training at the community college without having to repeat previously covered material.		

Program-Title	San Diego Science Alliance		STEM Inventory	Entry#	324

Org-Type	Non-Profit-based		
Lead	San Diego Science Aliance	PoC	Nancy Taylor
PoC-Phone	858.292.3854	PoC-Email	ntaylor@sdcoe.net
Address	6161 El Cajon Blvd #409 San Diego, CA 92115		
URL	www.sdsa.org		
Service-Region	San Diego County		
Type	Professional Development for Teachers|Student Program|Resources|Other		
Subjects	General Science|Biology|Chemistry|Physics|Earth Science|Environmental Science|Engineering|Robotics|Technology|Other		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Professional Development		
Other-Objectives	San Diego Science Alliance is the catalyst for improving K-12 science education in San Diego County. We deliver quality experiential programs, build bridges between the region's diverse business, education and scientific research communities, and foster public/private partnerships to increase science literacy.		
Served-per-Year	15,000	Demographics	
Content	BE WiSE – Better Education for Women in Science and Engineering BE WiSE invites girls in grade 7 and 8 to Science Overnights to explore their interest in science, hosts events for BE WiSE alumnae in high school to encourage their selection of more courses in science and math, and exposes these girls to adult women scientists who share their knowledge and passion and experiences with science and engineering careers. Events are scheduled throughout the academic year and during the summer. High Tech Fair - The primary goal of the High Tech Fair is to demonstrate to middle and high school students the actual applications of the science, technology, engineering and math concepts they are learning about in their core academics. Researchers and industry exhibitors prepare interactive exhibits where students can explore technological advances that are practiced by STEM professionals. The interactions that take place during the fair result in new inspirations for students and teachers and renewed commitments to education outreach for exhibitors. STEM Professionals with Class– The Science, Technology, Engineering & Mathematics (STEM) Professionals with Class is an innovative program that matches STEM professionals from business, research and higher education with K-12 classroom volunteer teaching opportunities. The program leverages the involvement of a community rich in scientific professionals to provide positive science role models to students and teachers. Robotics - SDSA provides 7th–12th grade students the opportunity to learn more about and use basic skills that are important to modern robotics through innovative programs like Botball and FIRST Robotics. MSSELI – Middle School Science Education Leadership Initiative The goal of MSSELI is to identify lead science teachers from San Diego City and County middle schools. Once identified, these teachers participate in an intensive summer and academic year professional development program focused on science content, leadership strategies, and collaboration with area publi and private scientific institutions. Health Sciences Initiative - HSI supports high school health academies or pathway programs and enhances Latino and diverse students' health and science education experience. Through the HSI project, SDSA and the collaborative partners seek to provide resources and recommendations to existing and future health academies, college level educators, and industry leaders that can be utilized to engage students to pursue health careers. Expanding Your Horizons (EYH) - A conference coordinated for 6th through 10th grade young women by the national Math/Science Network that increases the participation, retention, and advancement of girls and women in math, science, engineering and technology. Resource Catalog – A comprehensive online listing of K-12 educational programs and resources relating to STEM (Science Technology, Engineering, and Math) education. This database can be searched by kind of resource, subject area focus, grade range, and audience. Online Announcements - The "Science E-News" e-mail service provides advance information about local STEM education events and resources, as well as professional development opportunities for teachers.		
Outcomes	Networking, resource sharing, professional development, industry involvement		
Started	1995	Funded-Through	ongoing
Length	Ongoing	Cost	
Primary-Funding	Donations	Primary-$	
Materials			
Other-Funding			
How-Assessed	Ongoing external evaluation of all programs		
Best-Practice-Why	The San Diego Science Alliance has been recognized by the "What's Working: A Guide to Effective K-12 Math and Science Education in San Diego County for building teacher capacity, innovative school-based programs, community-based enrichment and system-wide connectivity		
Promising-Practice			
Sponsor		Sponsor-Org	San Diego Science Alliance
Sponsor-Phone		Sponsor-Email	
Other-Orgs	San Diego County Office of Education		

Program-Title	Middle School Science Education Leadership	STEM Inventory		Entry#	325
Org-Type	Non-Profit-based				
Lead	San Diego Science Aliance	PoC	Don Whisman		
PoC-Phone	858.292.3854	PoC-Email	dwhisman@sdcoe.net		
Address	6401 Linda Vista Road				
URL	www.sdsa.org				
Service-Region	San Diego County				
Type	Professional Development for Teachers|Resources				
Subjects	General Science|Biology|Physics|Earth Science|Environmental Science|Engineering|Robotics|Technology				
Level	Middle School (5-8th grade)				
Other-Objectives	The goal of MSSELI is to identify lead science teachers from San Diego City and County middle schools. Once identified, these teachers participate in an intensive summer and academic year professional development program focused on science content, leadership strategies, and collaboration with area public and private scientific institutions.				
Served-per-Year	30	Demographics			
Content	the work of MSSELI is organized around building middle school science teacher capacity in 1) Analyzing Instructional Materials, 2) Elements of Effective Instruction, 3) Improving Student Achievement, and 4) Curriculum Leadership. These four elements provide the foundation for the organization of professional learning that takes place during the 40-hour “Summer Leadership Academy” and the “Collaborative Lesson Studies” that take place during the academic year. Planning and implementation of the program is conducted by science educators, administrators, and instructional leaders from the San Diego County Office of Education, San Diego Unified School District, and other school districts in the region. This team has changed and grown over the life of the program to include individuals with expertise in instructional technologies, science content, and peer coaching from within the ranks of MSSELI.				
Outcomes	MSSELI fellows are deployed to middle schools in the region to lead or participate in Collaborative Lesson Studies (CLS). This process involves collaborative planning and delivering a science lesson with specific intended student outcomes . Focusing on intended student outcomes in a three-day CLS engages teachers in the most important professional dialog; How can we be sure that students are understanding and applying the science content? Research shows that teacher participation in lesson studies results in higher student gains in content knowledge in complex coursework . In the case of middle school science classrooms it is essential to assure that students are “getting it” and that teachers are identifying mechanisms to effectively engage all learners. Through the “deprivatization” of practice teacher collaborators discuss deeply the methods they are using to convey content knowledge and refine it for more effective instruction. MSSELI participants report that the Collaborative Lesson Study experience has been transformational for their instructional practice.				
Started	2004	Funded-Through	2010		
Length	Ongoing	Cost	$150K @ year		
Primary-Funding	Foundation	Primary-$			
Materials					
Other-Funding					
How-Assessed	External evaluation				
Best-Practice-Why	MSSELI has been recognized in "What's Working: A Guide to Effective Math and Science Education in San Diego County" for building teacher capacity. Teachers report that the Lesson Study experience is transformational in their teaching practice				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	San Diego County Office of Education				

Program-Title	Federation of Galaxy Explorers	STEM Inventory	Entry# 327
Org-Type	Non-Profit-based		
Lead	Federation of Galaxy Explorers	PoC	Derek Casari, Nick Eftimiades
PoC-Phone	(877) 761-1266	PoC-Email	dcasari@foge.org
Address	12609 Springloch Ct Silver Spring, MD 20904-3545		
URL	www.foge.org		
Service-Region	Nationwide		
Type	Lesson Plan		
Subjects	Earth Science|Space|Environmental Science|Engineering|Other		
Level	Middle School (5-8th grade)		
Other-Objectives	Secondary themes are taught while presenting the primary course of instruction and include the following: • Leadership skills (innovation, responsibility, inspiring people, communication) • Organizational skills (task organizing, goal setting, teamwork, leveragin technology)		
Served-per-Year	~3000	Demographics	
Content	Welcome to the coolest idea since the 20th century! The Federation of Galaxy Explorers was incorporated in the state of Maryland as a 501(c)3 non profit organization. The organization seeks to inspire and educate kids in space related science and engineering. Galaxy Explorers was created to prepare children for the future; a future that advances a space faring civilization. Kids in Galaxy Explorers attend after-school (or evening) monthly "Mission Team" meetings and periodic field trips. Adult volunteers teach Galaxy Explorers with easy to understand and fun-to-do educational material to provide a hands-on understanding of space science, earth science, engineering, and rocketry. Another primary theme - Space Citizenship - teaches the role of government, the power of citizens in a democracy, the promise of space expressed in art, writing, history, and business. Mission Team members wear uniform shirts and are rewarded for participation and achievements with ribbons, patches, medals, and certificates. Awards are an integral part of the program providing children self-esteem through achievement and recognition. The Federation of Galaxy Explorers began in 2002 with pilot program in Rock Creek International School in Washington, DC, and Prince William County schools in Virginia. In summer 2002, Galaxy Explorers hosted a summer camp with Prince William County schools. In 2003, we hosted 500 kids in 5 summer camps and nearly 400 kids in after school programs. We continue to grow. Benefits * Educate our kids - The Galaxy Explorers will prepare children for employment in the 21st century. * Galvanize support for space - Over time, Galaxy Explorers kids will grow to create a long term citizen activist force in society; shaping the national space policy, and furthering the science and engineering required to create a space faring civilization. * Economical - The concept of Galaxy Explorers is an extremely inexpensive means of educating the future generations by drawing on the volunteer spirit of America. The program provides a critical support infrastructure to motivate and educate children outside of the classroom. This infrastructure is particularly important given America's lack of classroom resources, science and math teachers, and modern day peer pressure		
Outcomes	1. Educate and inspire youth in science and engineering using the widely popular concept of space exploration as a theme. 2. Prepare children for employment in the 21st century. 3. Galvanize youth and create scientific literacy among the general population. 4. Create long term citizen activist force in society; shaping the nation's space policy and furthering the science and engineering required in society.		
Started	2002	Funded-Through	
Length	Ongoing	Cost	
Primary-Funding	Industry|Donations	Primary-$	70% donations; 10% membership dues; 20% program service revenues
Materials	All materials and resources are provided free of charge: 1. Loans of materials such as replica space suits, meteorite collections, robotic kits, GPS units, portable planetarium, Space Shuttle simulator, Moon Base simulation software, and scientific equip		
Other-Funding	Product sales that include telescope kits and model rockets		
How-Assessed	Survey forms to instructors, parents, and participants.		
Best-Practice-Why	Yes ---------- Testimonials: As a principal struggling to meet the demands of No Child Left Behind and still make learning an engaging, interactive and fun filled endeavor, I highly recommend Galaxy Explorers to all administrators. Our children have lost track that they are complying to a curriculum and simply enjoy learning and exploring science. Galaxy combines the natural curiosity of children with the expected content needed to attain school success. The support is provided to get the program started but is primarily parent driven. This is a format I firmly support as it brings parents into the educational paradigm and fosters the belief that learning is a home school partnership. Dr Tish Howard, Principal, Washington Mill Elementary, Alexandria VA Using the exploration of space to entice kids toward careers in science and math is ingenious. Their curiosity about spac brings them in; the fun they have building and learning and trying out new ideas--some of which work and some of which don't, keeps them coming back. Ms. Jean Wallace, Teacher, Rugate Montana Quote by 7th grader "I knew I liked to build things and I always knew I liked rockets, but I never liked science that much. Now I know that the career I want is to become an aerospace engineer." "Mr. Eftimiades My son, xxxx, possibly has Asperger's Syndrome. I don't know if you are familiar with it, but some refer to it as high-functioning Autism….I signed up as a volunteer primarily to watch my son – to make sure he wasn't disruptive, stayed in line and had fun. Well, to my amazement, he not only behaved and functioned normally, but he THRIVED. He was involved, he asked questions, he worked very well with this team, he had fun and my eyes are actually welling up with tears right now thinking back on how much fun he was having. It is truly that different of an experience for us and such as relief that there is actually something out there for him where he can be himself, be productive and be happy….." Tanya M. Baltimore, Maryland. Letter received following Moon Base One summer camp		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	* National Aeronautics and Space Administration * National Reconnaissance Office * Naval Research Labs * The Aerospace Corporatio * Raytheon Corporation * The Boeing Company * The Mitre Corporation * The Association of Lunar and Planetary Observers * American Astronautical Society * Analytical Graphics Inc. * Praxis Inc. * The Planetary Society * GarageGames		

Program-Title	Gateway Academy	STEM Inventory	Entry# 328
Org-Type	Non-Profit-based		
Lead	SME Education Foundation	PoC	Laurie Maxson
PoC-Phone	719-266-1430	PoC-Email	lmaxson@pltw.org
Address	SME Education Foundation One SME Drive Dearborn, MI 48121		
URL	http://www.smeef.org/programs/youthPrograms.aspx		
Service-Region	All California|Nationwide		
Type	Student Program		
Subjects	Math|Engineering|Technology		
Level	Middle School (5-8th grade)		
Other-Objectives			
Served-per-Year	7,500	Demographics	Women|American Indian|Asian and/or Pacific Islander|Black or African American|Hispanic or Latino|Economically disadvantaged
Content	A project-based experience, designed to introduce middle school students to the fundamentals of science, technology, engineering, and mathematics. At each Gateway Academy, instructors certified to teach Project Lead The Way (PLTW) courses will provide expert instruction in small-group settings. During the week, students will work together in a fun, exciting environment using leading-edge technologies to sample such disciplines as robotics, aeronautics, and computer design.		
Outcomes	This program is intended to recruit students into Project Lead the Way coursework at the middle school and high school level with an emphasis on introducing young women and under represented minority students to STEM.		
Started	1986	Funded-Through	Ongoing
Length	Ongoing	Cost	$3,000 - $5,000
Primary-Funding	Foundation|Industry|Donations	Primary-$	$5,000
Materials	Along with the $5,000 grant, each school recieves access to the camp curriculum and all materials necessary to run the camp.		
Other-Funding			
How-Assessed	The program is tracked by an independent company along with each school providing the SME Education Foundation and Project Lead the Way with data and feedback from the teachers, students and parents.		
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Project Lead the Way 4H Academy of Engineering NDIA SAE		

Program-Title	CalTeach Berkeley	STEM Inventory	Entry# 329
Org-Type	Higher-Education-based		
Lead	UC Berkeley	PoC	Nicole Nunes
PoC-Phone	510-642-7685	PoC-Email	calteach@berkeley.edu
Address	Cal Teach 367 Evans Hall #3860 Berkeley, CA 94720-3860		
URL	http://calteach.berkeley.edu/		
Service-Region	Bay Area		
Type	Professional Development for Teachers|Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Environmental Science		
Level	Elementary School (K-5th grade)|Middle School (5-8th grade)|High School (9-12th grade)|Undergraduate|Teacher Certification|Professional Development		
Other-Objectives	*To support local math and science classrooms by providing science, math and engineering college-going role models during the semester *To recruit, prepare, support and retain highly qualified mathematics and science teachers specifically trained for work in urban schools		
Served-per-Year	150	Demographics	
Content	Cal Teach is an undergraduate teacher education program for math, science and engineering majors. Students complete their STEM major, while also taking coursework in education, and having field experiences working with students and mentor teacher in local public schools. The Cal Teach program also includes a summer research institute where students work in a scientific research lab and have a 4 hour a week course about integrating research into K12 teaching. The program also includes workshops and professional development for both undergraduates and mentor teachers.		
Outcomes	The main outcome for the program is to encourage science, math and engineering majors to becomes middle and high school math and science teachers. A secondary outcome is to encourage more K12 students to pursue college and STEM majors in college.		
Started	Spring 2006	Funded-Through	Spring 2012
Length	Ongoing	Cost	
Primary-Funding	Foundation|Academia|Donations	Primary-$	
Materials	We currently have an experimental credential program proposal in with the CCTC and expect to be approved to award teaching credentials beginning in Fall 2009. Cal Teach also has a Noyce scholarship program to provide financial support to math, science and		
Other-Funding			
How-Assessed	Cal Teach has a research and evaluation program to assess the effectiveness of the program and to contribute to research in teacher education.		
Best-Practice-Why	The program has been modeled after the UTeach program which is considered nationally a best practice. Cal Teach Berkeley has been adapted to meet the needs of our Bay Area context. As part of our experimental credential program proposal, we plan to evaluate the attributes of our program and the quality of the teachers we prepare.		
Promising-Practice			
Sponsor	National Math and Science Initiative	Sponsor-Org	http://www.nationalmathandscience.org/
Sponsor-Phone	214-665-2548	Sponsor-Email	info@nationalmathandscience.org
Other-Orgs	Cal Teach Berkeley is part of a UC systemwide effort to increase the number of math and science teachers in California. Cal Teach Berkeley is also part of a national UTeach replication effort lead by the National Math and Science Initiative (NMSI)		

Program-Title	USAGraduate.com		STEM Inventory	Entry#	330
Org-Type	Other				
Lead	Gradnet, Inc.	PoC	Bob Clary		
PoC-Phone	315.373.0284	PoC-Email	bclary@usagraduate.com		
Address	P.O. Box 170 Syracuse, New York 13201				
URL	www.usagraduate.com				
Service-Region	Nationwide				
Type	Student Program				
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology				
Level	Middle School (5-8th grade)|High School (9-12th grade)				
Other-Objectives	The program is designed to foster an interest in and an understanding of STEM and its applications in the informal setting of an interactive, user-driven website and to provide inspiration to sustain the interest. The USAGraduate.com competition engages student in a fun learning experience in the informal setting of an interactive, user-driven website and provides inspiration to sustain their interest, showcase local STEM initiatives and career opportunities, and inspire them to consider pursuing a career in Science, Technology, Engineering or Mathematics. As a unique communications medium it presents the opportunity to add other applications, such as wellness, environment, and civics.				
Served-per-Year	25,000 +	Demographics	Economically disadvantaged		
Content	USAGraduate.com is an engaging website for students in grades 7 - 12, currently devoted to increasing their interest and understandin of Science, Technology, Engineering and Math (STEM). Participation in USAGraduate.com is provided at no cost for students and schools. Students are attracted to the USAGraduate.com program, and the repeated informal STEM learning experiences, by incentives - both intrinsic and extrinsic throughout the program. They enjoy the freedom of a program that is self-directed and geared toward their interests even while expanding their exposure to curriculum relevant STEM topics. They are able to track their weekly scores on the STEM quizzes and view their cumulative record as the competition progresses. Numerous prizes including laptops, netbooks, iPods and Amazon gift certificates will be presented each week and at the end of the competition. In addition, all participants that complete all of the quizzes will receive a certificate of completion. The program is based on the 'Graduate Online Youth Quiz' which is a free on-line educational quiz for primary and post primary students which has been available throughout Irelanc for the last six years. USAGraduate.com uses the same proven concept and technology. For more information on 'The Graduate', go to www.graduate.ie. STEM topics are critical for many future workforce development opportunities. STEM has been clearly identified in the USA as a major area of concern for government, educators and businesses. This focus also represents an immediate need to get students engaged in the United States' commitment to green and sustainable jobs. To date, over 25,000 students have participated in the program in the United States.				
Outcomes	Participants will: 1. Experience an increased awareness, knowledge and understanding of STEM concepts, processes and/or careers. 2. Develop a more favorable attitude toward STEM concepts, processes and/or careers. The primary focus of the program is secondary students in grades 7 – 12. Our research shows that this is where most students are considering subject preferences and career options				
Started	January, 2006	Funded-Through			
Length	Ongoing	Cost	No cost to the students, teachers, parents.		
Primary-Funding	Industry	Primary-$			
Materials					
Other-Funding					
How-Assessed					
Best-Practice-Why					
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	Syracuse City School District Marist College Syracuse University SUNY ESF Ballston Spa School District MOST Clear Channel Communications Sensis Corporation				

Program-Title	USAGraduate.com	STEM Inventory	Entry# 331
Org-Type	Industry-based		
Lead	Gradnet, Inc.	PoC	Bob Clary
PoC-Phone	315.373.0284	PoC-Email	bclary@usagraduate.com
Address	P.O Box 170 Syracuse, NY 13201		
URL	www.usagraduate.com		
Service-Region	Nationwide		
Type	Student Program		
Subjects	General Science|Biology|Math|Chemistry|Physics|Earth Science|Space|Computer Science|Environmental Science|Engineering|Robotics|Technology		
Level	Middle School (5-8th grade)|High School (9-12th grade)		
Other-Objectives	The program is designed to foster an interest in and an understanding of STEM in the informal setting of an interactive, user-driven website and to provide inspiration to sustain the interest. The objective is to have the USAGraduate.com competition engage students in a fun learning experience, showcase local STEM initiatives and career opportunities, and inspire them to pursue a career in Science, Technology, Engineering or Mathematics. As a novella unique communications medium, it presents the opportunity to add other applications, such as wellness, environment, and civics.		
Served-per-Year	25,000 +	Demographics	Economically disadvantaged
Content	USAGraduate.com is an engaging website for students in grades 7 -12, currently devoted to increasing their interest and understanding of Science, Technology, Engineering and Math (STEM). Participation in USAGraduate.com is provided at no cost for students and schools. Students are attracted to the USAGraduate.com program, and the repeated informal STEM learning experiences, by incentives - both intrinsic and extrinsic throughout a 10 week competition. They enjoy the freedom of a program that is self-directed and geared toward their interests even while expanding their exposure to curriculum relevant STEM topics. They are able to track their weekly scores on the STEM quizzes and view their cumulative record as the competition progresses. Numerous prizes including laptops, netbooks, ipods and Amazon gift certificates will be presented at the end of the competition. In addition, all participants that complete all of the quizzes will receive a certificate of completion. The program is based on the 'Graduate Online Youth Quiz' which is free on-line educational Quiz for primary and post primary students which has been available throughout Ireland for the last six years. GradNet Limited operates the franchise in Ireland and USAGraduate.com using the same proven technology. For more information on 'The Graduate', go to www.graduate.ie. STEM topics are critical for many future workforce development opportunities. STEM has been clearly identified in the USA as a major area of concern for government, educationalists and businesses. This focus also represents an immediate need to get students engaged in the United States' commitment to green and sustainable jobs. To date, over 25,000 students have participated in the program in the United States.		
Outcomes	Participants will: 1. Experience an increased awareness, knowledge and understanding of STEM concepts, processes and/or careers. 2. Develop a more favorable attitude toward STEM concepts, processes and/or careers. The primary focus of the program is secondary students in grades 7-12. Our research shows that this is where most students are considering subject preferences and career options.		
Started	January, 2006	Funded-Through	
Length	Ongoing	Cost	No cost to the students, teachers, parents.
Primary-Funding	Industry	Primary-$	
Materials			
Other-Funding			
How-Assessed			
Best-Practice-Why			
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs			

Program-Title	CyberPatriot		STEM Inventory	Entry#	334

Org-Type	Professional Association-based		
Lead	Air Force Association	PoC	David "Buck" Buckwalter
PoC-Phone	703-247-5803	PoC-Email	bbuckwalter@afa.org
Address	1501 Lee Highway Arlington, VA 22209		
URL	http://www.highschoolcdc.com/		
Service-Region	Nationwide		
Type	Student Program		
Subjects	Computer Science|Technology		
Level	High School (9-12th grade)		
Other-Objectives	CyberPatriot is a national high school cyber defense competition designed to educate and motivate the next generation of cyber defenders (& other STEM grads) the nation needs. The competition for this year is set and will touch over 20,000 students nationwide. Next year we will open the program to broader participation and hopr to reach 500,000.		
Served-per-Year	20,000 - 500,000	Demographics	
Content	A High School Cyber Defense Competition with basic network security academics serving as preparation fo an online series of competition events leading to an in-person, live finals.		
Outcomes	Excitement toward a career in computer scuience or other STEM disciplines, plus a greater awareness of basic cyber security practices among the nation's youth.		
Started	Sep-08	Funded-Through	through the 2010-2011 year, with additional funding under negotiation
Length	Ongoing	Cost	$3-5 million/year when fully deployed
Primary-Funding	Foundation|Government|Industry	Primary-$	less than $1million at this satge -- $5milion under negotiation
Materials	Online educational materials and access to program resources modest competitor prizes and recognition travel expenses for finalists		
Other-Funding	still under development		
How-Assessed	post-event surveys and a Competitor Relationship Management system that seeks to maintain contact and support of "alumni" of the program, seek information to improve the overall project, and develop comprehensive outcome measures for future evaluation.		
Best-Practice-Why	It is too early to make that claim, but that is clearly the goal.		
Promising-Practice	Absolutely. The interest and potential support that it has generated in just over a year ofexistence has been phenomenal.		
Sponsor	David Buckwalter	Sponsor-Org	Air Force Association
Sponsor-Phone	703-247-5803	Sponsor-Email	bbuckwalter@afa.org
Other-Orgs	Center for Infrastructure Assurance and Security at UT-SA Science Applications International Corporation General Dynamics Advanced Information Systems Microsoft Northrup Grumman Foundation Harris Corp. others in negotiation		