



STEM

Action Planning Summit

Science, Technology, Engineering & Math

APPENDIX C: NM STEM DATABASE

- This appendix is part of a larger report developed for the Action Planning Summit: Science, Technology, Engineering & Math.
- The full report is accessible at <http://nmfirst.org/events/stem-action-planning-summit>.

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Appendix C

NM STEM DATABASE

This appendix is part of a larger report developed for the Action Planning Summit: Science, Technology, Engineering & Math. The full report is accessible at <http://nmfirst.org/events/stem-action-planning-summit>.

The New Mexico STEM Database provides information about science, technology, engineering, and mathematics (STEM) resources for NM students, teachers, parents, counselors, and administrators. The New Mexico Experimental Program to Stimulate Competitive Research (NM EPSCoR) manages the database. If you have a program that you would like to include on the New Mexico STEM database, please visit nmstemed.org.

Additional resources are available on the national STEM Career website www.stemcareer.com and the NM STEM Network website at newmexicostem.org.

Program Name	Brief Description	Website
Computer Science and Information Technology Student Pipeline	As part of Los Alamos National Laboratory's Student Programs, the High Performance Computing and Information Technology Divisions continue to recruit and hire promising undergraduate and graduate students into the student pipeline in the areas of Computer Science, Information Technology Management Information Systems, Computer Security, Software Engineering, Computer Engineering, and Electrical Engineering. Students are provided a mentor and challenging projects to demonstrate their capabilities and contributions over time. Students are assessed by mentors and managers and when possible, students are converted to entry level staff at the Laboratory.	http://int.lanl.gov/orgs/dcs/student/
Visiting Faculty Program	The Department of Energy Visiting Faculty Program (VFP) provides a framework and some funding to support summer internship collaborations between universities and the Laboratory. The university faculty members may bring 1-3 exceptional students along for a 10-week research internship. Stipends, housing, and travel costs are covered using a combination of DOE and National Science Foundation funding.	srobbins@lanl.gov
Computer System, Cluster, and Networking Summer	The Computer System, Cluster, and Networking Summer Institute (CSCNSI) is a focused technical enrichment program targeting third-year college	http://institutes.lanl.gov/isti/summer-

Institute	<p>undergraduate students currently engaged in a computer science, computer engineering, or similar major. The program emphasizes practical skill development in setting up, configuring, administering, testing, monitoring, and scheduling computer systems, supercomputer clusters, and computer networks through a variety of activities including hands-on technical training, lectures, professional development seminars, and tours of LANL facilities.</p> <p>Students work in small project teams to execute real-world projects on computer clusters that they assemble and configure. A qualified instructor provides class instruction, and LANL subject matter experts mentor team projects. Students develop written and oral communications skills through critiqued presentations and present their work at a technical poster session at the conclusion of the Summer Institute. The CSCNSI is also an innovative, proactive approach to making the students aware of career possibilities within the Laboratory.</p>	school/cluster_network
Northern New Mexico MathCounts	<p>MATHCOUNTS is a national enrichment, coaching and competition program that promotes middle school mathematic achievement. The mission of MATHCOUNTS is to increase enthusiasm for and enhance achievement in middle school mathematics throughout the United States. MATHCOUNTS is supported by the National Society of Professional Engineers (NSPE), The National Council of Teachers of Mathematics and the National Aeronautics and Space Administration, to name a few.</p>	rusty@santafeengineering.com
New Mexico Computer Science for All	<p>The Santa Fe Institute (SFI), in partnership with the University of New Mexico, the Supercomputing Challenge, and other educational organizations, industry partners, and local schools, is developing an exciting new project called New Mexico Computer Science for All (NM-CSforAll).</p> <p>NM-CSforAll's targets middle and high school STEM teachers, preparing them to be future CS teachers. It offers a novel, interdisciplinary approach that uses</p>	www.santafe.edu

modeling and simulation as the basis for teaching CS Principles, the proposed, new Advanced Placement (AP) CS course. Teachers first take the modeling and simulation version of CS Principles online and then implement it as a dual credit course for their students. During a Spring semester-long course, the teachers investigate real-world problems, view them through the lens of complex systems—SFI’s primary research area—and then model and analyze them using agent-based modeling techniques. The project uses a “flipped” classroom methodology, meaning the lecture portion of the course will be offered as online videos, while the exercise and project work will take place in the lab, face-to-face. A summer workshop focuses on reviewing the CS content of the course, learning pedagogy, and recruitment techniques in preparation for the Fall semester implementation in the schools. The Fall implementation of the dual credit CS Principles class for high school students uses the videos developed for the teacher professional development course as lecture material and weekly “lab” session meetings led by participating teachers acting as learning coaches. (NM now requires a dual-credit, AP, or honors course for high school graduation and this course will fulfill the requirement.)

NM CSforAll’s secondary strategy fosters teachers’ CS content learning, CS teaching pedagogy, and computer programming practice through engagement in a professional online community. NM-CSforAll’s online network will include video sharing, uploading of documentation of work sessions, and social networking capabilities providing opportunities for teachers to learn from each other’s implementations of CS activities and communicate with each other, STEM educators, CS professionals and educational researchers. Teacher participants, as the co-creators of content for the site, will have shared authority, a critical factor in creating environments conducive to building knowledge about teaching and learning CS. The project evaluation will determine whether teacher professional development in CS that integrates

	<p>computational modeling and analysis of complex systems, builds capacity in future CS teachers, and whether co-creation and use of an online professional development network can improve teachers' pedagogical skills and sustain their interest in CS.</p> <p>The graduate level CS Principles Teacher Professional Development course for teachers (UNM CS390) will be offered Spring Semester 2012. The course for students (UNM CS141) will be offered as a dual credit course for students Fall semester 2013. For more information, please email Irene Lee, lee@santafe.edu .</p>	
Rocket Workshop	<p>It is not rocket science...well, maybe it is! Join us for some rocket fun. We will develop and blast off our very own rocket creations. We start with simple straw rockets and work our way up to Eggonautics. We will send our Eggonauts flying in a 2-liter bottle rocket. This program is typically provided Christmas Break, Spring Break, and Summer vacation</p>	www.fmtn.org
Simply Science	<p>Simply Science is just that...SIMPLE. Join us for simple science experiments, the kind you may not get to do at home in the kitchen. Dress accordingly, hopefully things will get messy.</p>	www.fmtn.org
"Creepy Comet" Simulated Space Mission	<p>Come with us for a Halloween-themed space mission. Fly off on a mission to find a comet, guide the action from mission control, and maybe even catch a glimpse of an alien! Costumes are encouraged. We blast off at 6PM on Friday, October 26th. \$10 per person, ages 10 and up (children must be accompanied by an adult). ADVANCE REGISTRATION IS REQUIRED. Call 505-938-7732 or email stephen@challengernm.org for more information, or to register.</p>	www.challengernm.org
Soar to Greater Heights: growing STEM's for the next generation	<p>Join New Mexico educators as we prepare the next generation for STEM (Science, Technology, Engineering & Mathematics) based opportunities; find your focus by understanding common core curriculum & standards; AND experience methods and examples of interdisciplinary environmental education.</p>	www.nmsta.org

Environmental Education Association of New Mexico	<p>EEANM is a nonprofit organization which provides, promotes, and enhances quality environmental education by offering New Mexicans opportunities for professional development, communication, and partnership. We work with the following goals:</p> <ul style="list-style-type: none"> • To encourage and support implementation of high quality environmental education curricula that leads to an environmentally literate citizenry. Determine needs of New Mexico educators for environmental education. • To provide and increase awareness of EEANM programs and resources to New Mexico environmental educators. Serve as a resource network to share information among people involved in environmental education in New Mexico. • To serve existing members through mailings, membership directory, newsletter, conferences, regional meetings, and workshops. • To develop in-house funding to support environmental education in New Mexico. • To foster and support participation by members of diverse groups within New Mexico. 	www.eeanm.org
Bosque Ecosystem Monitoring Program	<p>The Bosque Ecosystem Monitoring Program (BEMP) is long-term ecological research using volunteers (mainly K-12 teachers and their students) to monitor key indicators of structural and functional change in the Middle Rio Grande riparian forest, or “bosque.” Started with fewer than 200 students in 1997, BEMP now has over 7,000 students participating in field data collection, lab processing, and follow-up classroom activities – all helping to increase their understanding and appreciation of science and the riparian ecosystem and all supporting science education reform efforts. The program consists of a series of 27 research sites along 560 km (350 miles) of the Rio Grande. Sites are presently located between Ohkay Owingeh pueblo and Mesilla Valley Bosque State Park.</p>	www.bosqueschool.org/bemp.aspx
International Observe the Moon Night "Under	<p>Join the staff of the Museum of Nature and Science at a special Sky Safari moon observing night on Saturday,</p>	www.las-cruces.org

<p>the Same Moon"</p>	<p>September 22. The event will be held at the City Hall parking structure on the north end of Campo Street in Las Cruces and will begin at 8:00 PM.</p> <p>See the Moon as never before! Join the Museum and the NMSU Astronomy Department in celebrating the 3rd annual International Observe the Moon Night with activities for all ages including scale models of the moon/Earth, lunar phases, a video of the moon's surface and a short presentation of lunar features you may see! Bring your questions or your own telescope and join us as we explore the moon!</p> <p>The International Observe the Moon Night Team consists of scientists, educators, and Moon enthusiasts from government, non-profit organizations, and businesses throughout the United States and across the globe. This event has created the opportunity for people to take notice of the Moon's beauty and share that experience with one another. Through International Observe the Moon Night, we hope to instill in the public a sense of wonderment and curiosity about our Moon.</p> <p>Please call the museum at (575) 522-3120 for more information. Participants are required to provide their own transportation. Minors must be accompanied by a parent or guardian. Sky Safari is funded by the Southern New Mexico Natural History Foundation (SNMNH).</p>	
<p>Science Cafe</p>	<p>Join Sigma Xi, the Las Cruces Museum of Natural History and the Las Cruces Railroad Museum for an evening lecture by Zoe Richmond, Union Pacific Director of Public Affairs. Ms. Richmond will lead a discussion on technological advances being incorporated into the new Union Pacific classification yard on Thursday, September 27 at 5:30 pm at the Las Cruces Railroad Museum.</p> <p>Hear about tracking cargo, automating safety checks, and fuel saving techniques that will be part of their Santa Teresa facility now under construction. Find out how new railroading technologies being built-in can</p>	<p>www.las-cruces.org</p>

	<p>impact shipments across North America, and learn how this major new facility is expected to influence commerce and transportation in our area.</p> <p>Sigma Xi's Science Café is presented by the Scientific Research Society in cooperation with the Las Cruces Museum of Natural History. The free Café discussions this month are at the Las Cruces Railroad Museum. Recent research is presented to advance greater public understanding and encourage use of available science. Students and those seeking greater knowledge of current science are encouraged to be at the Science café.</p> <p>The Las Cruces Railroad Museum is located at 315 N Mesilla St. If you need accommodation for a disability to enable you to fully participate in this event please contact the museum 48 hours before the event at (575) 647-4480.</p> <p>For more program information: Museum of Natural History (575) 522-3120.</p>	
<p>Workshops for Early Childhood Providers</p>	<p>Join us at Explora to immerse yourself in a science-rich Classroom Exploration and fulfill required early childhood training hours. Each program takes an inquiry approach to learning and involves every participant in active exploration of physical materials that you can apply immediately to your classroom setting.</p> <p>You will receive a signed certificate of completion and 1.5 competency hours in any of the following competency areas. You may choose one, or split the time among multiple competencies:</p> <ul style="list-style-type: none"> *Competency 1: Child Growth, Development & Learning *Competency 5: Learning Environment & Curriculum Implementation *Competency 7: Professionalism 	<p>www.explora.us</p>
<p>Robo Task Force after-school club at Explora</p>	<p>Robo Task Force is an after-school robotics club that offers transactive experiences for 3rd through 7th</p>	<p>www.explora.us</p>

	<p>graders. Join other participants in exploring construction, materials development, electronics principles and robotic systems and design.</p>	
Explora Seasonal Camps	<p>When school is out spend half days or full days immersed in activities that explore science, technology and art. Spring Break Daily Camps for ages 5-12, Summer Camp Week-long Camps for ages 5-15, Winter Break Daily Camps for ages 5-12.</p>	www.explora.us
Classes for Home Schoolers at Explora	<p>The Home School Exploration Series is a semester of weekly, hour-long experiential science, technology and art programs facilitated by Explora educators. Each program takes an inquiry approach to learning and involves every student in active exploration of physical materials. Our Exploration programs are benchmarked to the standards established for relevant grade levels by the New Mexico Public Education Department.</p>	www.explora.us
Explora Outreach Programs	<p>Outreach Programs - We will come to your door! Most of our Classroom Explorations and Educational Theater Programs can be brought directly to your classroom, library or community center. In addition, Explora offers Assembly Programs for large groups of up to 125 students, and Family Science Events specifically designed for fairs, festivals and other special events.</p>	www.explora.us
Field Trip to Explora	<p>Exhibit Explorations - Explore our hands-on exhibit activities and to experience our participatory learning opportunities. An Explora educator will facilitate your group's one- or two-hour visit.</p> <p>Classroom Explorations - Classroom Explorations are hour-long, experiential programs facilitated by Explora educators. Each program takes an inquiry approach to learning and involves every student in active exploration of physical materials. Our Classroom Explorations are benchmarked to the standards established for relevant grade levels by the New Mexico Public Education Department.</p>	www.explora.us
Growing a Scientist	<p>Growing a Scientist™ offers transactive experiences for children ages 2½ through 5 and their adult companions.</p>	www.explora.us

	In these classes preschoolers learn about science by questioning, experiencing and investigating. Each session of Growing a Scientist™ meets every other week and consists of one hour of activities focusing on scientific discovery and incorporating art and literature. Following the program, there is time to enjoy a snack and experience Explora's exhibit activities together.	
Explora Youth Intern Program	Explora's Youth Intern Program involves low-income high school students in a three-year internship during which they experience an engaging approach to learning and become educators in their community.	www.explora.us
LANL Education Programs	<p>Vision Statement: A regional population prepared to enter the Laboratory's STEM (Science, Technology, Engineering, and Math) workforce development pipeline.</p> <p>Mission Statement: Enhancing STEM education and enrichment initiatives in:</p> <ul style="list-style-type: none"> • Workforce Development • Student Internships • Teacher and Faculty Professional Development • Public Understanding of Science • Education Value Proposition • Supporting education partnerships and workforce development in STEM 	community.lanl.gov/education_programs/lanl_education_programs.shtml
"Life in Space" FREE Day Camp	Come join us for an exciting and FREE day camp! We'll do hands-on activities that teach us how humans live in space, and even look at the search for extraterrestrial life. Camp is from 8:30-4:00PM on Monday, September 3, 2012. This camp is open to public school students in APS and RRPS school districts, in grades 4-6. To register, please email stephen@challengernm.org or call 505.938.7732. Spots are limited, so register soon!	www.challengernm.org
Computer Science Outreach	A multidimensional program with components such as in-school presentations, after-school programming, summer programs, state-wide competitions, social networking, forums and conferences, plus teacher-program interaction, in order to facilitate a mentor-lead	www.cs.nmsu.edu/wp/

	pipeline for NM students into Computer Science.	
Young Women in Computing	<p>Young Women in Computing Program (YWiC) is an outreach initiative developed with the vision to increase the participation in computer science (CS) activities and exposure for all students in NM. YWiC is housed in the Department of Computer Science at New Mexico State University and focuses on multidimensional program components such as in-school presentations, after-school programming, summer programs, state-wide competitions, social networking, forums and conferences, plus teacher-program collaborations that will leverage the available resources across opportunities.</p> <p>Young Women in Computing (YWiC) began in the summer of 2006 as part of the National Science Foundation's Broadening Participation in Computing Initiative. Since its inception, YWiC has directly impacted over 5,000 students. YWiC offers a series of integrated curriculum that spans across the multiple areas of middle school, high school and college outreach. This allows the program to reach large groups of students and utilize large scale outreach events to pinpoint students with demonstrated interest in computer science related activities. Those students are then given the opportunity to participate in more intensive and specialized activities like the summer programs, conferences, and competitions.</p>	www.cs.nmsu.edu/YWiC/
New Mexico FIRST® LEGO® League (FLL®)	<p>FLL teams of 3-10 students build LEGO®-based robots and develop research projects based on a real-world Challenge that changes annually. Their activities are guided by FLL Core Values.</p> <p>Students in grades 4-8 (ages 9-14) get to:</p> <ul style="list-style-type: none"> • Strategize, design, build, program, and test an autonomous robot using LEGO® MINDSTORMS® technology • Create innovative solutions to challenges facing today's scientists • Develop career and life skills including critical 	www.nmfill.org

	<p>thinking, time management, and teamwork</p> <ul style="list-style-type: none"> • Become involved in their local and global community 	
"Sport for the Mind"	<p>FLL teams of 3-10 students build LEGO®-based robots and develop research projects based on a real-world Challenge that changes annually. Their activities are guided by FLL Core Values.</p> <p>Students in grades 4-8 (ages 9-14) get to:</p> <ul style="list-style-type: none"> • Strategize, design, build, program, and test an autonomous robot using LEGO® MINDSTORMS® technology • Create innovative solutions to challenges facing today's scientists • Develop career and life skills including critical thinking, time management, and teamwork • Become involved in their local and global community 	www.nmfl.org
Cool off with a Comet Public Space Mission	<p>Come join us at the Challenger Learning Center for the most unique night out in Albuquerque. July 20th, 2012 we'll be blasting off for a simulated space adventure. Our space craft launches at 6:00PM, and we'll have drinks and snacks on hand for our astronauts. Come by yourself, with a date, or with a group of friends! Advance registration is required, so call 505.938.7732 or visit www.challengernm.org/events.php. Admission is \$20 per person (age 21+ only).</p>	www.challengernm.org/events.php
STEM UP CNM/UNM Cooperative	<p>A Hispanic Serving Institute (HSI) Grant awarded by the Department of Education. Our primary goals are to:</p> <ul style="list-style-type: none"> • increase degrees earned in Science, Technology, Engineering and Math for Hispanic and low income students at CNM and UNM • Lower cost for attaining STEM degrees at CNM and UNM • Open Transfer Centers at CNM and UNM • Provide outreach to students through tutoring, peer mentoring and STEM specific transfer advising and website • Develop sustainable pathway agreements between 	www.unm.edu

	CNM and UNM. Carolina Aguirre - caguirre@unm.edu	
Inquiry Science Education Consortium (ISEC)	<p>In fall 2010, the LANL Foundation launched the Northern New Mexico Inquiry Science Education Consortium (ISEC) as a regional program to improve performance of high-need students in grades K–6.</p> <p>Four school districts (Española, Mesa Vista, Peñasco, and Santa Fe) joined the Consortium for the 2010–2011 school year, each making a five-year commitment to bring inquiry science instruction to all K–6 classrooms in their districts. Pojoaque joined in 2011. Dulce and Springer have joined for 2012. Additional Northern New Mexico school districts will be invited to join the Consortium in subsequent years with the goal of providing inquiry science instruction to the whole region.</p> <p>Teachers receive ongoing professional development with the inquiry materials and methods of instruction. They are also supported in class by Science Literacy Coaches (SLCs) who teach model lessons, observe lessons and provide feedback, meet with individuals and groups of teachers, and assist in data collection for the on-going ISEC evaluation.</p> <p>For additional information the ISEC website is www.lanlfoundation.org/inquiry-science/index.html.</p>	www.lanlfoundation.org/inquiry-science/index.html
STEM Gateway Program, Title V	The STEM Gateway program opens wide the gates to graduation for Hispanic and low income students. By focusing resources on undergraduate science and math courses that traditionally have low student success rates, UNM provides richer learning opportunities for students and increases the number of...	stemgateway.unm.edu/
Academy of Young Scientists - From Stone Age to Space Age	The STEM Gateway program opens wide the gates to graduation for Hispanic and low income students. By focusing resources on undergraduate science and math courses that traditionally have low student success rates, UNM provides richer learning opportunities for students and increases the number of students	ays.nmsu.edu/index.html

	<p>attaining degrees in science, technology, engineering and mathematics (STEM).</p> <ul style="list-style-type: none"> • Gateway Science and Math Course Reform: Faculty-driven projects designed to change instruction and curriculum to better serve low-income and minority students. • Peer Learning Facilitators: Peer-assisted collaborative learning activities in large gateway sections. The assistance of peer learning facilitators allows instructors to incorporate a wider variety of effective instructional strategies. • STEM Student Interest Groups: One-credit shadow seminar courses that connect core STEM courses to other STEM majors. These courses introduce students to the connections between STEM disciplines, while encouraging them to explore their own career and professional interests. • Data-driven Prioritization: Data collection and analysis to assist UNM in better understanding the course-taking patterns and success rates of UNM students and CNM transfers in relation to STEM degree attainment. <p>The STEM Gateway program is funded through a U.S. Department of Education TITLE V grant, 2011-2016, 100% grant funded (total anticipated funding \$3.82 million).</p>	
<p>New Mexico Partnership for Math and Science Education</p>	<p>The Southern New Mexico Academy for Young Scientists (AYS) provides opportunities to spark the interest of students in Science, Technology, Engineering, and Mathematics. Through hands-on science adventures, AYS educates and motivates the next generation of scientists, mathematicians and engineers in the Las Cruces, New Mexico community!</p> <p>Funded by the National Science Foundation, the Academy for Young Scientists bring an assortment of out-of-school science, technology, engineering, and mathematics opportunities to approximately 400 middle school students and their families. AYS students enjoy exciting and educational science excursions, as</p>	<p>web.nmsu.edu/~pscott/partner.htm</p>

	<p>they work toward their goal of 150 hours of AYS activities during 5th, 6th and 7th grades.</p> <p>The Academy for Young Scientists program emphasizes hands-on science fieldtrips and participation in after-school space and science programs, all with an “Adaptation to the Environment” theme. Students explore many science topics from the “Stone Age to the Space Age” including archaeology, aerospace and astronomy, engineering, biology, geology, environmental awareness, and the latest technology.</p>	
New Mexico Partnership for Math and Science Education	<p>The New Mexico Partnership for Math and Science Education (NMPMSE) is a statewide membership organization representing institutions and projects involved in STEM education. The vision of the NMPMSE is to promote coherence and quality of STEM education initiatives through dissemination of information, networking, coordination, and collaboration so that New Mexico will become a leader in STEM education. The mission of the NMPMSE is to serve as a clearinghouse and network for STEM education initiatives in New Mexico.</p> <p>The NMPMSE works to accomplish its mission by:</p> <ul style="list-style-type: none"> • Providing a forum for communication among state government, non-profit organizations and projects, and private organizations interested in STEM education; • Promoting coordination of STEM education projects and activities in New Mexico; and • Providing opportunities for people and projects with similar goals to communicate and to work collaboratively. 	web.nmsu.edu/~pscott/partner.htm
Santa Fe Science Cafés for Young Thinkers	<p>Held 6 times per academic year, the purpose of this program is to introduce middle- and high school students to interesting topics in science and technology. Please see the Alliance website, www.sfafs.org, for a detailed schedule.</p>	www.sfafs.org
Project Learning Tree	<p>Project Learning Tree® (PLT) is an award winning, multi-disciplinary environmental education program for educators and students in PreK-grade 12. PLT is a</p>	www.eeanm.org

	<p>program of the American Forest Foundation. It is one of the most widely used environmental education programs in the United States and abroad, and continues to set the standard for environmental education excellence.</p> <p>PLT helps students learn how to think, not what to think, about the environment.</p> <p>PLT meets state and national education standards. The curriculum materials provide the tools educators need to bring the environment into the classroom and their students into the environment. Topics range from forests, wildlife, and water, to community planning, waste management and energy.</p> <p>PLT is a network of 3,000 grassroots volunteers and over 120 state coordinators that work with formal and nonformal educators, school staff, state agencies, foresters, businesses, civic organizations, museums, nature centers, and youth groups to provide professional development programs. To date, more than 500,000 educators are trained in using PLT materials, reaching approximately 26 million students in the United States and abroad.</p>	
<p>New Mexico Science Teachers Association (NMSTA)</p>	<p>The mission of The New Mexico Science Teachers Association (NMSTA) is to provide a network for educators throughout the state to work collaboratively towards improving science education from pre-kindergarten through college. The NMSTA assists classroom teachers by providing guidance and strategies through professional development opportunities that enhance science education.</p>	<p>www.nmsta.org</p>
<p>Watershed Watch and Resilient Water Future Programs</p>	<p>River Source supports people living as good stewards of their watersheds by providing watershed science and policy education, planning, monitoring, ecological restoration and promoting collaboration. River Source focuses on STEM education at all of our schools by teaching cutting-edge watershed monitoring of several physical, chemical and biological measurements. We provide science and policy education to over 1,000</p>	<p>www.riversource.net</p>

	<p>students per year in over 20 communities throughout New Mexico. We serve 6 grade through 12 into college. We also provide adult training for New Mexico counties, tribes and cities.</p>	
Science Advisors Program	<p>The Science Advisors (SCIAD) Program services teachers and students K-12 with local STEM community resources for support with STEM instruction and activities. The program networks with STEM professionals in higher education, industry, organizations, or retirement to provide classroom presentations, career information, field trips, teacher training, or support with STEM events and/or competitions. Small Grant opportunities are also available for teachers for STEM projects and activities.</p>	<p>lcps.k12.nm.us/Departments/Prof_Dev/sciad.shtml</p>
Project WILD and Project WILD Aquatic	<p>Project WILD is an award winning, multi-disciplinary wildlife education program for educators and students in Pre-K through grade 12. Project WILD has been involved in STEM training since it was launched in 1983. Project WILD training is available to pre-service-education college students. Project WILD includes two activity guides: terrestrial and aquatic as well as an early childhood guide, Growing up WILD. Project WILD has grown to be the most widely used wildlife program in the United States; and it is also used internationally.</p> <p>The goal of Project WILD is to assist students of any age in developing awareness, knowledge, skills, and commitment to result in informed decisions, responsible behavior and constructive actions concerning wildlife and the environment. Project WILD has trained over 1 million educators in the U.S. Those educators, in turn, have provided wildlife education to more than 53 million youth since the program was first introduced. Project WILD is provided to educators through a network of professional coordinators representing state wildlife, natural resources and educational agencies.</p> <p>Project WILD activities allow students to learn through inquiry methods and field investigations while integrating science, mathematics, language arts, social</p>	<p>www.wildlife.state.nm.us</p>

	<p>studies, environmental education, and expressive arts. Project WILD is correlated to both national and state Academic Content Standards and to the Common Core Standards adopted by many states including New Mexico.</p>	
RiverXchange	<p>This innovative, long-term outreach project motivates New Mexico fifth grade students and their teachers to protect local water resources by combining a hands-on curriculum, computer technology and class partnerships. Students become “high tech pen pals” with fifth grade students in another U.S. state or country throughout the entire school year using a private wiki workspace to write about their experiences. Participating classes learn about water conservation and water quality issues/strategies through hands-on activities, participate in a field trip/service learning project, and learn about water resources from guest lecturers who visit the classroom. The project is provided at no cost to participating teachers.</p>	www.waterfestnm.com
Mathematically Connected Communities - Leadership Institute for Teachers	<p>Mathematically Connected Communities (MC2) is a partner project involving mathematicians, math educators, teachers, principals and district administrators across the state of New Mexico. It is designed to improve the mathematics learning of students in grades 5-12. The activities of this project are designed to build the capacity of districts to implement and monitor a rich, standards-based mathematics curriculum. These activities include: 1) Summer Academies facilitated by mathematicians, mathematics educators, and teacher leaders; 2) school-based follow-up professional development with individual teachers and within professional learning communities (PLC) provided by MC2 staff and district-based math specialists; 3) professional development for district leadership teams through Secondary Lenses on Learning; and (4) leadership development for mathematics coaches in partner districts.</p> <p>MC2 is based out of New Mexico State University.</p>	mc2.nmsu.edu/

	Other institutional partners include: University of New Mexico, New Western New Mexico University (WNMU), Central New Mexico Community College, Los Alamos Labs Math and Science and Academy (MSA), and Northern New Mexico Rural Schools Network (Northern Network).	
Mathematically Connected Communities - Leadership Institute for Teachers	The Mathematically-Connected Communities (MC2) Leadership Institute for Teachers (LIFT) project is a partnership among mathematicians, education faculty, and school district leaders to develop a cadre of 60 mathematics teacher leaders that have a deep conceptual knowledge of K-12 mathematics, as well as the knowledge, skills and dispositions to facilitate growth in mathematics teaching and learning environments in schools or districts. The institute provides a two year cycle of professional development through intensive summer study as well as a follow-up academic year program that includes application of teachers' learning in their school or district setting. The program leads to a Masters of Arts in Teaching Mathematics. The first cohort of 31 elementary, middle and high school teachers began in summer 2010. A second cohort will begin in summer 2012.	mc2lift.nmsu.edu/
Southern New Mexico Science, Engineering, Mathematics, and Aerospace Academy (SNM SEMAA)	<p>The Southern New Mexico Science, Engineering, Mathematics, and Aerospace Academy (SNM SEMAA) is a national, innovative project designed to increase participation and retention of historically underrepresented K-12 youth in the fields of science, technology, engineering and mathematics, or STEM.</p> <p>SEMAA has emerged as a nationally renowned leader in the efforts to increase the participation of historically underserved K-12 youth in the areas of STEM. Established as a joint venture in 1993 between NASA Glenn Research Center and Cuyahoga Community College, the project has grown from a single site to a national organization that is supported by Congress and dedicated to improving the academic success of children nationwide.</p> <p>SNM SEMAA Office is based at New Mexico State</p>	semaa.nmsu.edu

	University, College of Education and College of Engineering.	
Ecology Field Program	The Ecology Field Program is a free, placed based, hands on program that introduces students to thier local ecosystem. Students meet SMNHC educators at a wild area near thier school or at the SMNHC in Cedar Crest. They are given a brief introduction to ecosystems and then they are taken on 2.5 hour hike. During the hike they will explore the interconnectedness of nature through a series of hands on activities. After a picnic lunch, the students will participate in another focused activity if time permits. The program is aligned with the New Mexico state standards and benchmarks for the 5th grade but is a great experience for 3rd through 8th grades. For more information about this free, state wide program, please visit our website at sites.google.com/a/aps.edu/smnhc/	sites.google.com/a/aps.edu/smnhc/
Santa Fe Alliance for Science	SFAFS is an organization of more than 100 STEM professional volunteers in the Santa Fe area who work with students and teachers to help improve K-14 math and science education. SFAFS offers high school and community college tutoring in all science and math subjects, provides an extensive cadre of advisors and judges for science fairs, and offers an evening "Santa Fe Science Café for Young Thinkers" series for middle and high school students (adults also welcome). New this year are a program of "Professional Enrichment for Middle and High School Math and Science Teachers," and a "Math Blitz" effort aimed at improving the math skills of middle school students. SFAFS volunteers are also available for classroom discussions on math and science. Please see our website (www.sfafs.org) for more information.	www.sfafs.org
Challenger Learning Center New Mexico - Rendezvous With a Comet	The Rendezvous with a Comet mission takes students up into our simulated space craft in order to locate, track, and research Comet Encke. Our program seeks to increase student expectations of success and student skill levels in mathematics and science, while focusing on situations where students are required to utilize	www.challengernm.org

	communication and leadership skills. The Rendezvous with a Comet mission meets state and national standards for all middle and high school grade levels and challenges students to truly absorb information through experiential learning and inquiry.	
Scientifically Connected Communities (SC2)	<p>Goals: Focusing on public elementary, middle and high schools in New Mexico that primarily serve minorities and students underrepresented in the science fields, the goals of Scientifically Connected Communities are to:</p> <ul style="list-style-type: none"> • Provide professional development and resources for teachers that promote inquiry-based teaching strategies and increase scientific literacy for all students; • Increase science content knowledge of elementary and middle school teachers; • Provide support and resources to increase the number of highly qualified science teachers in New Mexico; • Provide structures where best practices are shared and a professional network is established. <p>Main Components of the SC2 Program:</p> <ul style="list-style-type: none"> • Summer Professional Development Institutes; • Support in the Classroom throughout the School Year (Materials, Equipment, Science Resources, and Team Teaching); • Professional Development Events Each Semester; • Collaborative Workshops with Science Experts 	education.nmsu.edu/sc2/
Challenger Learning Center New Mexico - Micronauts	The Micronauts mission begins with team building activities and group-oriented problem solving. After establishing a positive team environment, the Micronauts ride in our Space Transport Vehicle up to the CLC Space Craft. Once they arrive, teams of Micronauts move from research station to research station, exploring scientific concepts like mass, weight, planetary movement, and microorganisms. The Micronauts experience teaches teamwork and leadership skills, while encouraging students to explore	www.challengernm.org

	science topics through inquiry. The program meets math and science standards for students of all grades from Kindergarten to 4th grade.	
First Friday Fractals	A monthly fulldome planetarium show that dramatically showcases the beauty of algebra, and the connections between math and nature. This award-winning, awe-inspiring show draws fans from grandchildren to grandparents, and always sells out in advance, so tickets must be purchased online at FractalFoundation.org.	www.FractalFoundation.org
RoboRAVE International	An annual robotics competition for 3rd - 12th grade age students who work in teams of 2-4 students. Two different levels of robotic challenges - Open Platform Challenge has robots programmed to follow a 1/4" line to a tower, deliver a payload, and return home and the second challenge, Fire Fighting, robots seek out and extinguish candles using programming and an array of sensors. Registration is open until April 1, 2011 and the event is two days - Friday April 29 (An ice cream social) and Saturday, April 30 for the event. Open to anyone from anywhere. Cash prizes, trophies and banners are awarded to participants, INCLUDING the coaches! Check us out at www.roborave.org or call Inquiry Facilitators at 888-527-2007. We are anticipating over 800 participants at our 10th Annual RoboRAVE International being held at the Albuquerque Convention Center.	www.roborave.org
Intel Math	Intel Math is an 80-hour professional development course in mathematics content for K-8 teachers. The program was adapted from the Vermont Math Initiative developed by Dr. Ken Gross. The course is collaboratively taught by a practicing mathematician and a mathematics educator. One of the goals of Intel Math is that teacher participants deepen their own understanding of math through problem-solving. Intel Math "is designed to close the gap between insufficient mathematics training of elementary school teachers and the demands of the contemporary	math.arizona.edu/~ime/intelmath/

	<p>mathematics classroom” (Kenneth Gross, on VMI) and places emphasis on deepening the teacher participants’ understanding of core K-8 mathematics concepts.</p>	
<p>Northern New Mexico Math & Science Academy</p>	<p>The Northern New Mexico Math and Science Academy (MSA) was started in 2000 by the Los Alamos National Laboratory (LANL) in partnership with the Northern New Mexico Council for Excellence in Education. Since then, over 300 teachers in Northern New Mexico have been part of the MSA program!</p> <p>The goal of MSA is to significantly improve the math and science education in participating school districts—currently these are Chama, Española, Pojoaque, and Taos. This is accomplished through an intensive professional development program for teachers in these districts. Participating teachers make a three-year commitment to MSA, and are expected to devote at least 200 hours of their time each year (over and above that required by their teaching contract) to MSA activities.</p> <p>MSA includes six core components: MSA Summer Institutes, MathCitement, Internet-based communication among MSA participating teachers, MSA Days, and MSA Team Teacher Meetings. The program begins with a three-week Summer Institute that includes two weeks of instruction in standards-based education and MathCitement, a one-week, stand-alone session focusing on math content and pedagogy. This is followed during the school year by collaboration and planning in content and pedagogy with other members of their Summer Institute cohort. The vehicle for this collaboration is an MSA teacher blog. Teachers use this chat group to read current articles on best practices in math teaching, post reflections about teaching, alert others to interesting articles, and conduct an asynchronous dialog that is mutually supportive.</p> <p>In addition, MSA staff and coaches regularly meet with participants throughout the school year and conduct quarterly follow-up professional development sessions.</p>	<p>www.mathandscienceacademy.org</p>

	<p>The MSA staff and coaches consist of Dr. Lorenzo Gonzales, Carol Brown, Dr. Melissa Salazar and Zachary Leonard. Two district-level Espanola Public Schools mathematics coaches, Yanira Vazquez and Manny Espinoza, also conduct professional development of and classroom support for participating MSA teachers. Participating MSA teachers are also required to conduct two school-wide Celebrations of Learning that are designed to engage parents in their children’s learning. Finally, two “MSA Days” are conducted each year to give participating teachers the opportunity to share their reflective portfolios with other MSA teachers that they created over the course of the school year as well as engage them in a mid-year professional development opportunity. This cycle repeats for an additional two years.</p>	
Nuclear Science Education Programs	<p>Students, families, educators, and the general public can participate in education programs around the fundamentals of physics, chemistry, nano-scale engineering, and other science topics. The Museum offers classroom programs, hands-on science demonstrations, educator workshops, kids' camps, lectures, and much more. The Museum is the only national museum in the state and an affiliate of the Smithsonian Institute.</p>	www.nuclearmuseum.org
Supercomputing Challenge	<p>Founded in 1990, the Supercomputing Challenge is a not for profit educational organization that sponsors an annual computational science competition for middle and high school students in New Mexico. The Challenge is a program encompassing the school year in which teams of students complete science projects using high-performance supercomputers. Each team of up to five students and a sponsoring teacher defines and works on a single computational project of its own choosing.</p> <p>Throughout the program, help and support are given to the teams by their project advisors and the Supercomputing Challenge organizers and sponsors.</p>	challenge.nm.org

UNM-PNM Statewide Mathematics Contest Public Lecture	<p>In conjunction with the UNM-PNM Statewide Mathematics Contest, two public lectures in mathematics will be given on February 5, 2011 starting at 10 am in SMLC 102 on the UNM campus. Our first speaker is Dmitry Khavinson from University of South Florida who will speak on From Algebra to Astrophysics. Catherine Bénéteau from University of South Florida will follow at 11 with her presentation on Discrete Wavelets and Image Compression. Posters for the talks can be found at www.unm.edu/~vassilev/PosterDK.pdf and www.unm.edu/~vassilev/PosterCB.pdf. The public is welcome to attend.</p>	mathcontest.unm.edu/
TechGYRLS	<p>TechGYRLS is a residential summer camp in Tijeras. There are 4 separate weeks, and each week has a different theme. TechGYRLS is also a free after school program in select schools. It is currently at Harrison, Polk, Cleveland and Tierra Adentro.</p>	www.ywca-nm.org
Southwest Center for Microsystems Education (SCME) at the UNM Manufacturing Training and Technology Center	<p>The SCME offers professional development and educational materials to excite and engage secondary and post secondary students in the field of Microsystems (MEMS) technology. This is a fast growing, multidisciplinary field. Microsystems products are found in all the gadgets we use today and require a high level of technical skills by the people who manufacture, design and integrate these devices. By engaging students in learning where these Microsystems are used, how they are made and why they should care, we, as educators, can get them to see the relevancy and importance in learning Science, Technology, Engineering and Mathematics (STEM). For more information, see our website www.scme-nm.org.</p>	www.scme-nm.org
American Chemical Society – Central New Mexico Local Section	<p>The Central New Mexico Local Section of the American Chemical Society has a membership of over 800 members in the central portion of New Mexico (counties of Bernalillo, Los Alamos, Rio Arriba, Sandoval, Santa Fe, San Miguel, Socorro, Taos, Tarrant, and Valencia). Our ACS Local Section supports awards at two regional Science & Engineering Fairs, the State of New Mexico Science & Engineering Fair, and</p>	acs.nm.org

	<p>the American Indian Science and Engineering Society (AISES) Science & Engineering Fair.</p> <p>Our ACS Local Section works to recognize several outstanding New Mexico students as part of our ACS Chemistry Olympiad program. Our ACS Local Section also partners with the New Mexico Academy of Science to recognize two outstanding New Mexico science teachers each year. Our ACS Local Section also recognizes National Chemistry Week (www.acs.org/NCW) annually.</p> <p>The American Chemical Society assists the college aspirations of African American, Hispanic, and American Indian students pursuing a chemical science degree (www.acs.org/scholars). The American Chemical Society also administers the Project SEED program to involve economically disadvantaged students in a summer research program (www.acs.org/projectseed). The American Chemical Society also provides a structure for high school teachers and students to form chemistry clubs (www.acs.org/chemclub).</p>	
Making Stuff Family Day	<p>“Making Stuff” Family Day: What will the future bring, and what will it be made of? Learn about scientific innovations that are ushering in a new generation of materials that are stronger, smaller, smarter, and cleaner than anything we've ever seen. Families can participate in hands-on activities that demonstrate nano-scale science and engineering from 10 a.m. to 3 p.m. on Saturday, January 15, 2011. This day is affiliated with the PBS Program called “Making Stuff,” which will air on KNME on January 19, 2011.</p>	www.nuclearmuseum.org
New Mexico Project Lead the Way	<p>New Mexico State University is an Affiliate University with Project Lead the Way (PLTW). PLTW prepares students to be the most innovative and productive leaders in Science, Technology, Engineering and Mathematics (STEM) and to make meaningful, pioneering contributions to our world.</p> <p>PLTW partners with middle schools and high schools to provide a rigorous, relevant STEM education. Through</p>	pltw.nmsu.edu

	<p>an engaging, hands-on curriculum, PLTW encourages the development of problem-solving skills, critical thinking, creative and innovative reasoning and a love of learning.</p> <p>PLTW is the largest non-profit provider of innovative and rigorous STEM education programs. More than 350,000 students at nearly 4,000 schools have taken part in PLTW classes. PLTW hopes to reach more than 1,000,000 students each year by growing to 10,000 implementations by the 2015-16 school year.</p>	
Young Women in Computing	<p>The Young Women In Computing Program began in 2006 and is funded by a National Science Foundation grant called Broadening Participation in Computing. The goal of this program is to gain the interest of young women in the various fields of computer science. For five weeks during the summer, 20-25 girls come together to learn about different areas where computer science is applied and just to have fun. The areas the camp focuses on are animation with Alice, robotics, web programming, and bioinformatics.</p> <p>The camp is organized so girls can become confident in their CS abilities and hopefully pursue careers in computer science, a field in which they are a minority. The program has expanded into middle school and high school road shows, and created a college mentoring program for young women who are majoring in computer science. The application process for the 2011 camp is now open!</p>	www.cs.nmsu.edu/ywic
The Memorial Middle School Agricultural Extension and Education Center (MMSAEEC)	<p>The Memorial Middle School Agricultural Extension and Education Center (MMSAEEC) is located in Las Vegas, New Mexico on the Memorial Middle School campus. The campus occupies 34.4 acres of former agricultural land in the Gallinas river valley, with approximately two acres dedicated to the MMSAEEC. The MMSAEEC was founded in 2005 through a special legislative appropriation and is administered through the NMSU's College of Agriculture and Home Economics.</p>	mmsasc.nmsu.edu

<p>AERO AV8R's - Southwest Learning Centers</p>	<p>Our AERO (Aeronautical Education and Research Opportunities) AV8R Program introduces our students to the exciting and rewarding career fields found in aviation. As a technology-based preparatory school, we found that aviation offers a unique opportunity to demonstrate the concepts found in Science, Technology, Engineering and Mathematics. In the cockpit, pilots use algebra, trigonometry, geometry, earth science, physics, geography and communications on each and every flight. The practical application of these subject areas adds relevance to our students' educations and depth to their understanding.</p> <p>Starting the fourth grade, aviation lessons are taught in the classrooms. In the seventh grade, our students can be a part of our AV8R's in the Wings program where they attend monthly meetings and field trips designed to expose them to the many facets of aviation. When they are sixteen and a half years old, they are eligible to enter our AERO AV8R Flight Academy and earn their Private Pilot Certificate, Instrument Rating, and Commercial Pilot Certificate. In addition to becoming pilots, our AERO AV8R Flight Academy students begin their career tracks in either Aerospace Engineering, Aerospace Design, Air Traffic Control, Airport Management, or Professional Pilots, to name a few.</p> <p>This innovative program is one nine such programs in the nation and open to all students enrolled at Southwest Primary, Southwest Intermediate, or Southwest Secondary Learning Center in Albuquerque, New Mexico</p>	<p>www.sslc-nm.com</p>
<p>Desert Science in the Classroom</p>	<p>The Asombro Institute for Science Education (home of the Chihuahuan Desert Nature Park) is a non-profit organization dedicated to increasing scientific literacy by fostering an understanding of the Chihuahuan Desert. To achieve this mission, we serve more than 13,000 K-12 students and 500 teachers in southern New Mexico with interactive, inquiry-based science education program each year. These programs are designed to bring the excitement of hands-on, inquiry-</p>	<p>www.asombro.org</p>

	<p>based science to your students.</p> <p>All of our programs are correlated to New Mexico State Education Standards in Science, Math, Language Arts, and Social Studies and are grade specific. For more program descriptions, please visit our website at www.asombro.org.</p>	
Adventures in Science and Knowledge (ASK) K-12 Education Partnerships	Supporting the development of the next generation of scientists and engineers.	www.sandia.gov/ciim/ASK/
Delta Education Inquiry Science Curriculum K-8	<p>Our educational programs and resources embody the best in inquiry-based science, providing teachers the opportunity to really engage their students. Delta Education supports these teachers by providing the highest-quality hands-on science programs and materials and by providing programs that are correlated to NSES and state standards.</p> <p>Our flagship K–8 curriculum program, Full Option Science System® (FOSS®), was developed under a National Science Foundation grant at the Lawrence Hall of Science, University of California at Berkeley. Dr. Lawrence Lowery, a professor at the University of California at Berkeley, has been an instrumental contributor since the inception of FOSS and remains a committed partner in its growth. FOSS is now the most widely used elementary school hands-on science curriculum in the United States and is used in many large school districts, including New York City, Los Angeles, San Diego, Minneapolis, Chicago, Dallas, Baltimore, and Washington, DC.</p> <p>In addition to our FOSS program, Delta Education offers our new Seeds of Science Roots of Reading (SSRR) program. SSRR is a research-based, field-tested curriculum that integrates inquiry science with content-rich literacy instruction. Funded in part by the National Science Foundation, Seeds/Roots was developed by a team at the University of California Berkeley's Lawrence Hall of Science and Berkeley's Graduate School of</p>	www.deltaeducation.com

	<p>Education. Seeds/Roots addresses the urgent need for materials that help students develop the inquiry skills needed to make sense of the physical world while building fundamental literacy skills.</p> <p>Delta also offers complete modular classroom kits, such as our popular Delta Science Modules (DSM). With 57 modules, DSM provides classroom flexibility, allowing teachers to reinforce science content or to build curriculum to meet state or local frameworks.</p> <p>Finally, Delta Education's Custom Educational Services builds custom science kits for school districts such as Miami-Dade County, Florida, and specialized curriculum producers such as Johns Hopkins University's Success for All program</p>	
<p>Celebrating the Colorado Plateau: Water Within a Landscape</p>	<p>The BOEP welcomes your submission for their annual spring conference in the heart of the Colorado Plateau. The Colorado Plateau Bioregional Outdoor Education Conference is part of the Four Corners School of Outdoor Education's Bioregional Outdoor Education Project. BOEP was started in 1999 to allow students and teachers to study their roles in the natural and cultural heritage of the Colorado Plateau. This conference is held annually to bring together K-8 teachers and other educators to learn how to better incorporate bioregionally focused, place-based, hands-on, outdoor education into their classrooms.</p> <p>Conference sessions should reflect place-based, bioregional, and/or outdoor education philosophy, pertaining specifically to the Colorado Plateau. Presenters will have 90 minute sessions on Saturday or Sunday morning. Last year's conference drew 50, K-8 educators from the Colorado Plateau and we are expecting about the same this year.</p> <p>To submit a proposal go to the Four Corners School website to download the forms. Proposals are due by Dec 15, 2011.</p> <p>Presenters have their registration fee waived but do</p>	<p>www.boep.org</p>

	<p>need to register for the conference and make lodging arrangements. Registration will begin in February 2012.</p> <p>Questions? Please contact Kristen Trejos, AZ Regional Coordinator, at ktrejos@boep.org or 720-933-0246.</p>	
Micronauts Public Space Mission	<p>Come join the Challenger Learning Center New Mexico for our first ever Micronauts Public Mission! Together, our littlest astronauts will blast off on a simulated space adventure in our space station simulator. There, they will perform experiments and collect vital data for NASA. Our Micronauts Public Mission begins at 9:00AM on Saturday, January 28th 2012, and is for kids age 6-9 (and their parents). Advance registration is required, so call 505.938.7732 or visit www.challengernm.org/holiday-camp-programs.php soon! CLCNM public missions are \$10 per person.</p>	www.challengernm.org
Sweetheart Space Mission	<p>Take your sweetheart to space for Valentine's Day! Come join us at the Challenger Learning Center for the most unique date in Albuquerque. This Valentine's Day (Tuesday, February 14th), we'll be blasting off for a simulated space adventure. Our space craft launches at 6:00PM, and we'll have wine and snacks on hand for our astronauts. Advance registration is required, so call 505.938.7732 or visit www.challengernm.org/learning-communities.php?layer=community. Admission is \$40 per couple (age 21+ only).</p>	www.challengernm.org
New Mexico FIRST Robotics FLL Championships and Information Event	<p>The New Mexico FIRST Robotics FLL Championship and Information event will highlight all four levels of FIRST Robotics Programs aimed at engaging students ages 6-18 in hands on, real world challenges that get them excited about STEM education. Information about all four levels will be available to New Mexico educators and community leaders. This is a FREE EVENT being held on January 21st at the New Life Baptist Academy at 6900 Los Volcanes NW, Albuquerque, NM from 8-5pm.</p>	www.usfirst.org
Energy on the Move Day Camp	<p>Bring your kids for a fun and educational day camp on January 16th (APS schools are OUT for Martin Luther King Jr. Day). Our "Energy on the Move" day camp</p>	www.challengernm.org

	<p>focuses on the most exciting kind of energy: Kinetic! Kids will get to do lots of hands-on science activities, and will finish up the day by designing, building, and testing a rubber-band powered car.</p> <p>This camp runs from 8:30AM to 4:00PM on Monday, January 16, 2012, and is for students in grades 2-4. Advance registration is required, so call 505.938.7732 or visit www.challengernm.org/holiday-camp-programs.php soon! CLCNM day camps are \$50 per camper for the full day.</p>	
NM MESA Program	<p>NM MESA is a pre-college program for grades 6 through 12 in schools throughout New Mexico with an emphasis on STEM. The NM MESA Mission: Empower and motivate New Mexico's culturally diverse students with science, technology, engineering, and math (STEM) enrichment.</p>	nmmesa.org
Project GUTS - Growing Up Thinking Scientifically	<p>Project GUTS -- Growing Up Thinking Scientifically -- is a summer and after-school science, technology, engineering and math (STEM) program for middle school students based in Santa Fe, New Mexico and serving New Mexico. Growing up thinking scientifically means learning to look at the world and ask questions, develop answers to the questions through scientific inquiry, and design solutions to their problems. Project GUTS is hosted by the Santa Fe Institute and is funded by the National Science Foundation, the Bengier Foundation, the Los Alamos National Bank, Lockheed-Martin/Sandia Foundation, the New Mexico Public Education Department Math and Science Bureau, New Mexico Experimental Program to Stimulate Competitive Research (NM-EPSCoR), the Los Alamos National Laboratory Foundation, and by private donors.</p>	projectguts.org
GUTS y Girls Summer Workshops	<p>GUTS y Girls helps you explore new concepts and careers in science, technology, and engineering while it develops your computer skills and gives you access to the very latest technology. As a summer workshop participant, you will learn about complex systems science through hands-on activities and computer</p>	www.gutsygirls.net

	simulations. You will learn to make your own computer models, run experiments, and analyze the data that the computer models generate. You will also meet and interview scientists and learn about career paths in science, technology and engineering.	
Robot Alliance	<p>The Robot Alliance represents all of New Mexico’s robot competitions and education programs. Members of the alliance have agreed to cross-promote all the other competitions and programs, as each offers a unique opportunity to New Mexico students.</p> <p>The competitions run from late September to early June, allowing academic athletes to participate in multiple “game” days throughout the school year.</p> <p>Members of the Robot Alliance pursue this shared aim: Students will, through team competition, learn how to design, build, program and test machines to complete tasks and communicate results in a variety of ways.</p>	www.gotoif.org
Using Scientific Data for Multi-Disciplinary Science Instruction	<p>This course will focus on climate change and earth systems science and outline how climate concepts can be incorporated into biology and physics classrooms. The course will provide the opportunity to explore multi-disciplinary resources available for data-rich classroom instruction. Teachers will review and critique online curricula and datasets, experiment with data visualizations and share how they use scientific data in their classrooms. Part of our work will be geared towards examining datasets specific to New Mexico providing an opportunity for place-based instruction. This course is supported by NM EPSCoR.</p>	seis institute.org
Using Rock Samples to Think like a Scientist	<p>This course for K-8 teachers will focus on making basic observations on a wide variety of rock types, followed by development of multiple working hypotheses to explain - and argue about - the specific features we observe. We will spend the first day in the classroom and examining rocks around the UNM campus. All of day 2 will be spent up close and personal with rocks, outcrops, and landforms in the greater Albuquerque area. Collection of rock samples for classroom use will</p>	seis institute.org

	<p>be part of the agenda. On day 3, we will be back in the classroom, working together to devise thought-provoking classroom assignments based on the samples we collected and the landscapes we observed. The course will involve some hiking on uneven ground (i.e., a walk to the top of one of the Albuquerque volcanoes). A day pack for carrying rocks and plenty of water will be needed.</p>	
<p>Mammals of New Mexico and the Value of Natural History Research Collections</p>	<p>The class will be based out of the Division of Mammals at the Museum of Southwestern Biology. The mammal collection is among the five largest in the world and is an amazing resource that has been largely under-utilized by K-12 classes. We will focus on the natural history and distribution of NM's mammals and incorporating natural history collections and data into your curricula. You will get hands on experience in the museum and real world examples illustrating lots of topics in evolution and adaptation. You will leave with an understanding of how biological museums work, and lots of information on adaptations, evolution, and mammal natural history that can be integrated into your own classes. Will include a fieldtrip to the Sevilleta National Wildlife Refuge to observe small mammals up close and learn about their adaptations to life in the Chihuahuan desert. We are confident you will thoroughly enjoy the class and leave with a new appreciation for natural history collections and the amazing mammalian diversity of New Mexico.</p> <p>Taught by Dr. Jon Dunnum, Collection Manager, Division of Mammals, Museum of Southwest Biology, UNM and Suzy Dunnum, NBCT, 7th Grade Science Teacher, Truman Middle School</p>	<p>seisinstitute.org</p>
<p>Clouds and Weather</p>	<p>This course is an introductory weather class designed for K-8 teachers. No previous weather knowledge is required or assumed. We will learn about many weather variables such as temperature, humidity, and air pressure as well as the atmospheric processes that cause changes in these variables. We will learn how to read and interpret weather maps and make simple</p>	<p>seisinstitute.org</p>

	<p>forecasts. A special emphasis is placed on understanding clouds, including nomenclature and processes that create them. We will discuss potential weather projects for students and talk about weather phenomenon common to the New Mexico.</p>	
<p>Museum Teaching Fellowship</p>	<p>Are you an elementary school teacher who would like to learn more about programs, materials, and other resources at either the New Mexico Museum of Natural History and Science (NMMNHS) or the Albuquerque BioPark to enhance learning and teaching in your classroom? Would you like to work on your own self-directed natural history or conservation science learning project? Then don't miss this great opportunity to become deeply immersed in the NMMNHS, or the Albuquerque BioPark, as part of this summer's Museum Teaching Fellowship, co-sponsored by the Science Education Institute of the Southwest (SEIS) and Sandia National Laboratories.</p> <p>Six elementary teachers will be chosen to participate in this 80-hour program that offers valuable learning and resource opportunities, as well as a \$1,000 stipend. Those teachers who choose the NMMNHS session will meet from June 18-21. Teachers choosing the Albuquerque BioPark session (includes Rio Grande Zoo, Albuquerque Aquarium, Rio Grande Botanic Garden and Tingley Beach) will meet from June 25-28. An additional 48 hours of self-directed study is required for all teachers participating in the program, followed by final presentations on July 25.</p> <p>For more information, please contact Selena Connealy at selena.connealy@comcast.net or 505-217-5605.</p>	<p>seisinstitute.org</p>
<p>Micronauts Public Mission</p>	<p>Come join the Challenger Learning Center New Mexico for our newest Micronauts Public Mission! Together, our littlest astronauts will blast off on a space adventure in our space station simulator. There, they will perform experiments and collect vital data for NASA. Our Micronauts Public Mission begins at 9:00AM on Saturday, March 24, 2012, and is for kids age 6-9 (and their parents). Advance registration is required, so</p>	<p>www.challengernm.org</p>

	call 505.938.7732 or visit www.challengernm.org/events.php soon! CLCNM public missions are \$10 per person.	
New Mexico in Space - Day Camp	Delve into the history of space exploration and how New Mexico and its residents helped shape it. What steps towards space were taken in New Mexico? Who were the New Mexicans involved in our exploring to the skies? Join us as we explore the development of the science and technology of space exploration, how the New Mexican community has been integral to the progress in space exploration and experimenting with where we can go from here. This camp is for students in grades 6-8, and runs from 9AM to 4PM on March 12, 2012. Advance registration is required, so register at www.challengernm.org/spring-camp-programs.php now! All camps are \$50 per camper.	www.challengernm.org
A Walk on the Moon - Day Camp	Join us as we learn all about the moon and why it looks the way it does. Campers will discover how and why the moon seems to change shape, learn about the moon's surface and participate in several moon based activities. This camp is for students in grades K-1, and runs from 9AM to 4PM on March 13, 2012. Advance registration is required, so register at www.challengernm.org/spring-camp-programs.php now! All camps are \$50 per camper.	www.challengernm.org
All Wound Up - Day Camp	Have you ever wondered how wind-up toys work? Have you ever wanted to design and make your own toy? Join us as we explore the science and technology of wind-up toys. We will delve into how energy is stored and used, explore how toys are engineered, and design and make our own toys using recycle and repurposed materials. This camp is for students in grades 4-5, and runs from 9AM to 4PM on March 14, 2012. Advance registration is required, so register at www.challengernm.org/spring-camp-programs.php now! All camps are \$50 per camper.	www.challengernm.org
Our Night Sky - Day Camp	Take a journey with us as we walk through our night sky and learn about the things we see (and might not see)	www.challengernm.org

	<p>in the sky above. During this session, campers will learn how to recognize familiar constellations and planets, discover how they were named, and much more! This camp is for students in grades 2-3, and runs from 9AM to 4PM on March 15, 2012. Advance registration is required, so register at www.challengernm.org/spring-camp-programs.php now! All camps are \$50 per camper.</p>	
Crater Kids 1 Summer Camp	<p>Come learn about our Moon! The week begins with a “launch” to the Moon. Once we’re on the Moon, we will explore craters, build lunar rovers, and create edible solar systems. Back on Earth, we will plan time to share our adventures. This week-long camp runs from June 11 to June 15, 9:00AM to Noon. Our Crater Kids 1 camp is for students entering grades K-1 in the 2012-2013 school year. Advance registration is required at www.challengernm.org. All CLCNM summer camps are \$125 per camper.</p>	www.challengernm.org
Space Girls 1 Summer Camp	<p>Calling all young women! Have you even wondered about space exploration? Ever dream about being an astronaut? Join us as we explore the science and technology of space exploration. From engineering structures and spacecrafts to planning nutritious and delicious food for astronaut meal, we will explore the wide variety of elements needed for a successful mission to space. This week-long camp runs from June 11 to June 15, 12:30PM to 3:30PM. Our Space Girls 1 camp is for students entering grades 1-3 in the 2012-2013 school year. Advance registration is required at www.challengernm.org. All CLCNM summer camps are \$125 per camper.</p>	www.challengernm.org
Cosmic Capers Summer Camp	<p>As an astronaut preparing for your mission, campers will explore the secrets of comets as they investigate scientific data and discover ways to solve unexpected emergencies. At the end of training they will be part of the crew that journeys into space to extend your study of comets in our spaceflight simulator. This week-long camp runs from June 25 to June 29, 9:00AM to Noon. Our Cosmic Capers camp is for students entering grades</p>	www.challengernm.org

	4-6 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper	
Robotics Summer Camp	Campers are part of a team challenged to design and build a robot to carry out a mission on Mars. Teams must work together to rescue a crew of astronauts stranded in a Martian dust storm. Find out how robotics can save lives, explore space, and improve life on Earth. This week-long camp runs from June 11 to June 15, 9:00AM to Noon. Our Robotics camp is for students entering grades 4-8 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	www.challengernm.org
Cosmic Capers Summer Camp	As an astronaut preparing for your mission, you will explore the secrets of comets as you and your teammates investigate scientific and discover ways to solve unexpected emergencies. At the end of your training, you will be part of a crew that journeys into space to extend your study of comets in our spaceflight simulator.	www.challengernm.org
Tiger Team Summer Camp	Step up to the plate as a member of the Tiger Team to solve unexpected problems that arise during a space mission based on real NASA situations. Campers will devise solutions, test, modify, and retest their solutions to save the astronauts! Many fun problem solving activities and games abound! This week-long camp runs from June 25 to June 29, 9:00AM to Noon. Our Tiger Team camp is for students entering grades 6-8 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	www.challengernm.org
Space Girls 2 Summer Camp	Calling all young women! Have you even wondered about space exploration? Ever dream about being an astronaut? Join us as we explore the science and	www.challengernm.org

	<p>technology of space exploration. From engineering structures and spacecrafts to planning nutritious and delicious food for astronaut meal, we will explore the wide variety of elements needed for a successful mission to space. This week-long camp runs from June 25 to June 29, 12:30PM to 3:30PM. Our Space Girls 2 camp is for students entering grades 4-6 in the 2012-2013 school year. Advance registration is required at www.challengernm.org. All CLCNM summer camps are \$125 per camper.</p>	
Micronauts Summer Camp	<p>Be part of our Discovery crew planning and doing experiments in our spacecraft simulator. Pre-flight training includes learning about life on-board the space station, orbit, and re-entry through hands on activities.</p>	www.challengernm.org
Racing to Space Summer Camp	<p>Come take part as we learn about the similarities between race cars and aerospace, beginning in the early 20th century and continuing to the present day.</p>	www.challengernm.org
Miconauts Summer Camp	<p>Be part of our Discovery crew planning and doing experiments in our spacecraft simulator. Pre-flight training includes learning about life on board the space shuttle, orbit, and re-entry through hands on activities. This week-long camp runs from August 6 to August 10, 12:30PM to 3:00PM. Our Micronauts camp is for students entering grades 2-4 in the 2012-2013 school year. Advance registration is required at www.challengernm.org. All CLCNM summer camps are \$125 per camper.</p>	www.challengernm.org
Racing to Space Summer Camp	<p>Come take part as we learn about the similarities between race cars and aerospace, beginning in the early 20th century and continuing to the present day. This week-long camp runs from August 6 to August 10, 9:00AM to Noon. Our Racing to Space camp is for students entering grades 2-4 in the 2012-2013 school year. Advance registration is required at www.challengernm.org. All CLCNM summer camps are \$125 per camper.</p>	www.challengernm.org
Space Crafters Summer	<p>Do you have an irrepressible urge to make and build? Join us as we test properties of different materials,</p>	www.challengernm.org

Camp	explore form and function, and delve into structural engineering for space. Using recycled and repurposed materials we will design and engineer structures that solve problems and make things easier. This week-long camp runs from July 23 to July 27, 12:30PM to 3:30PM. Our Space Crafters camp is for students entering grades 3-6 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	
Paper Capers Summer Camp	Where can a piece of paper take you? The sky's the limit! In this exciting, sky-themed adventure, campers will learn how to fold airplanes and birds, build papier-mâché aliens, launch tissue paper hot air balloons, and much more. Join us to reach for the stars -- with paper! This week-long camp runs from July 23 to July 27, 9:00AM to Noon. Our Paper Capers camp is for students entering grades 3-6 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	www.challengernm.org
Crater Kids 2 Summer Camp	Come learn about our Moon! The week begins with a "launch" to the Moon. Once we're on the Moon, we will explore craters, build lunar rovers, and create edible solar systems. Back on Earth, we will plan time to share our adventures. This week-long camp runs from July 23 to July 27, 9:00AM to Noon. Our Crater Kids 2 camp is for students entering grades K-1 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	www.challengernm.org
Mission to Mars Summer Camp	Using hands-on explorations, campers will learn about the planet Mars and its place in space. Investigations will include volcanoes, craters, sand dunes, and the atmosphere. Campers will learn about missions to Mars, how they got there and what scientists hope to learn about the planet. This week-long camp runs from July 9 to July 13, 12:30PM to 3:30PM. Our Mission to Mars camp is for students entering grades 2-3 in the 2012-2013 school year. Advance registration is required	www.challengernm.org

	at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	
Up in the Air Summer Camp	We can't see it, feel, hear it, or touch it and yet air is all around us. Spend the week with us as we explore the physical properties of air; delve into aerodynamics and how things fly; and experiment with the science of a mysterious matter that is essential to life on Earth. This week-long camp runs from July 9 to July 13, 9:00AM to Noon. Our Up in the Air camp is for students entering grades 4-6 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	www.challengernm.org
Flight Specialists Summer Camp	Campers will explore the principles of flight by creating model airplanes and rockets. We'll experience Newton's Laws of Motion as we navigate a dirigible through a flight plan. At the end of our week, we will even have an air rocket launch! Come join the team! This week-long camp runs from July 9 to July 13, 9:00AM to Noon. Our Flight Specialists camp is for students entering grades 2-3 in the 2012-2013 school year. Advance registration is required at www.challengernm.org . All CLCNM summer camps are \$125 per camper.	www.challengernm.org