You've worked hard for what you've earned. Don't let it go to waste.

Moving Beyond the Bell ASES Program
Presented by Amy Worley

Rural Committee Presentation

Moving Beyond the Bell

ASES STEM Academy

Every year, time for science in the school day dwindles. Science units and hands-on projects might be a thing of the past. ASES STEM Academy is bridging that gap by bringing science, technology, engineering and mathematics to the afterschool programs at Fuller, Pierce, and Inyokern Elementary Schools. Our goal is to bring STEM experts into schools and K-5 classrooms to supply essential exposure to science.

We have a variety of 1-4 week units planned this school year in a variety of fields and interests, such as Astronomy, biology, Earth science, geology, engineering, ecology,ressed conservation and business development. We want each unit to provide as much hands-on experience as possible, with labs, testing, and enrichment at each opportunity.

Please call us today at (661) 245-1070 to find out more about how you can help, or visit our web site at www.bdrc.org for more information.
STEM Academy

As a result of the 2011-2012 program evaluation/reflection, the STEM Academy was developed to better meet the needs of the students, program staff and address goals of program funding.

- Focus of our curriculum is Science, Technology, Engineering and Math (STEM)
- Year-long curriculum schedule has been developed and include topics of Forensics, Business, Junk Box Wars, Biology, etc.
- Standards-based [Common Core Math, Common Core ELA, CA Content Standards for Science and Health aligning to the Next Generation Science Standards]
- Hands-on, project-based activities that utilize scaffolding techniques
- Variety of topics and activity formats to meet the needs of all learners
Afterschool Education and Safety Program (ASES)

Changemakers Awards

High Desert Leapin’ Lizards was awarded the Jhumki Basu Foundation Special Focus Award for the Partnering for Excellence: Innovations in Science, Technology, Engineering and Math Education competition. The U.S.-based competition—hosted by Carnegie Corporation of New York, The Opportunity Equation, and Ashoka Changemakers®—is sourcing innovative solutions for bringing STEM professionals into schools to offer their talent, knowledge, and real-world skills to students, in partnership with their teachers and schools. This recognition is a result of the strong partnerships that High Desert Leapin’ Lizards has with Sierra Sands Unified School District, Cerro Coso Community College, and Naval Air Warfare Center and its Educational Partnership agreements and staff.
Scientific Method Unit

- Established the format and expectations of the STEM Academy and provided basic information to begin the study of science topics
- Began process of utilizing science notebooks (adjusted format for grade levels)
Forensics Unit

- Four week unit - evidence, prints, impressions, blood/DNA
- Concentrated on math standard of pattern recognition and science standard of variation of individuals and inherited characteristics and investigation.

A Collaboration of
Sierra Sands Unified School District
High Desert Leapin' Lizards, Inc.
Business Unit

- Three week unit- develop a plan, understanding marketing, and supply and demand
- Unit addressed math standards and technology
- Culminated in our LOA event

Moving Beyond the Bell ASES Program

A Collaboration of
Sierra Sands Unified School District
High Desert Leapin’ Lizards, Inc.
Junk Box Wars

- Two week unit- design and redesign, engineering basics, simple machines, and forces and motion
- Unit addressed science standard of simple machines and forces and motion
- Participated in pilot “Go Green Racer” program from Museum of Science, Boston
- Students from Advanced Engineering Program at BHS assisted with unit
- Culminated in Racer Rally!

Moving Beyond the Bell ASES Program

A Collaboration of
Sierra Sands Unified School District
High Desert Leapin’ Lizards, Inc.
Astronomy Unit

- Three week unit - concentration of human explorations, focusing on Moon, Mars, Stars and Constellations
- Unit addressed science standards for astronomy
- Utilized NASA-developed curriculum and lessons
Racer Rally

Moving Beyond the Bell ASES Program

A Collaboration of
Sierra Sands Unified School District
High Desert Leapin’ Lizards, Inc.
Collaboration

- Collaborate with Naval Air Weapons Station, Weapons Division to provide Robotics and Chemistry
- Collaborate with Hungry River Theater Group, Maturango Museum, Kern County Waste Management “Clean Sweep” and the China Lake Astronomical Society to provide programs during afterschool
- STEM Coordinator is a member of the California Afterschool Network’s STEM Committee, Co-Chair of the Promising Practices Dissemination Workgroup, and serves on the Quality, English-Language Learners, and Rural Committees
- Elicit support from Burroughs High School programs, staff and students related to curriculum topics
Community Involvement

- Participated in the 2013 Children’s Fair
- Participated in the 2012 Non-Profit Community Showcase
- HDLL is a United Way Member Agency
- Representative attends monthly IWV Collaborative meetings
- Participate in the Cerro Coso Community College Career Fair
- Participated in the National Lights On Afterschool event
Professional Development

• STEM unit trainings
  • Planned and provided by STEM Coordinator and the STEM Committee.
  • Held one per unit and scheduled before the school year begins.
  • Present staff with unit background knowledge, hands on experience with lessons to be presented.
  • Allow staff members to participate in a Professional Learning Community with their afterschool peers.
  • Provide staff with unit pacing guides and themes and vocabulary.

Moving Beyond the Bell ASES Program

A Collaboration of
Sierra Sands Unified School District
High Desert Leapin’ Lizards, Inc.