

LEARNING CIRCUIT

SPRING 2008 VOLUME 23 NUMBER 2

EDUCATIONAL RESOURCES AND OPPORTUNITIES AT SRP

"SEMI HIGH TECH U" INTRODUCES STUDENTS TO A WORLD OF HIGH-TECH OPPORTUNITIES



Tolleson University High School sophomores create biodiesel fuel in the genetics lab at Glendale Community College during High Tech U. The 3-day workshop was sponsored by SRP.

SRP sponsored a three-day, hands-on SEMI High Tech U program for students this spring to learn about and better understand the possible careers and educational pathways available to them in high-tech industries. (SEMI is an acronym for the semiconductor industry.)

The program was held at Glendale Community College in March. Volunteers from organizations and high-tech companies including SRP, Intel, Air Products, ON Semiconductor, Glendale Community College and Estrella Mountain Community College participated as instructors, panelists, and mock interviewers for the High Tech U activities. The event was produced by

the Maricopa Advanced Technology Education Center, a member of the Division of Academic and Student Affairs within the Maricopa Community Colleges. SRP Strategic Economic Services sponsored the event.

"The high-tech industry sector offers exciting opportunities for Arizona youth," said Heidi Schaefer, Manager of SRP Strategic Economic Services. "But high school students need to know that they have to be well-prepared to take full advantage of those opportunities."

This High Tech U program had a special emphasis on alternative energies, particularly solar energy and biofuels, because of SRP's focus

on renewable energies as an economic driver. SRP pursues innovative and effective renewable energy solutions by investing in educational programs and events, such as High Tech U, that introduce students to renewable energy solutions.

Thirty-nine Tolleson University High students were accepted into the program.

All were sophomores and represented a cross-section of the student body.

As with each of the SEMI High Tech U programs, the curriculum emphasized science and math. This included hands-on activities, a tour of

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WHERE MINDS MEET: FIRST BIOSCIENCE SUMMIT CALLS FOR COLLABORATION AMONG ALL

About 110 of the top bioscience educators in Arizona gathered at Tempe's Fiesta Inn last month to network and plan the future of Arizona's entry into the realm of bioscience education.

Sponsored by SRP and APS, the one-day event featured presentations on education's contribution to biogenetic economic development, research in higher education and the need for coordination at all levels of Arizona's education system.

The Arizona Bioscience Education Pipeline Summit was the first effort to bring educators from all levels of biogenetic education together. Educators from high school, community college, universities, and informal education gathered for a day of presentations, breakout sessions, and a reception and tour of ASU's Biodesign Institute.

"The summit was the logical outgrowth of a need for communication and collaboration among all levels of Arizona educators," said Darrell Sheppard, SRP Community Outreach Representative. "We can't expect Arizona to compete effectively in this new global initiative without a strong and coordinated education component."

Speakers included Dr. Michael Mobley, Associate Director of ASU's Biodesign Institute and Board President of the Arizona Bioindustry Association, Jim McPherson, Assistant Vice President of the Flinn Foundation, and Mitch Horowitz, Director of Strategy for the Battelle Technology Partnership Practice.

Mobley presented an overview of

world challenges and advancements in biotechnology. McPherson acquainted the attendees with Flinn's role in coordinating the Arizona Bioscience Roadmap, an overarching plan for Arizona's competitive entry into the new era of biotechnology. Horowitz reported on Arizona's achievements in the Roadmap, and the opportunities and challenges to Arizona as a new player on the national and international scene.

Dr. Elaine Johnson, Director of the BioLink National Center, gave Arizona educators a short course in national connections and opportunities. Featured speaker was Dr. Katy Korsmeyer, President of the Bay Area Biotechnology Education Consortium, who offered a model of collaboration among high schools, universities and private enterprise in the San Francisco metropolitan area.

Breakout sessions dealt with best practices for current and start-up high school programs, funding and partnership opportunities, and programs offered by the state and higher education.

The summit was the brainchild of Rick Fisher, Director of Education Outreach at the Biodesign Institute, Xan Simonson, Director of the BioTech Institute at Mesa High School, and the Flinn Foundation.

LINKS OF INTEREST:

BioLink: www.bio-link.org

BABEC: babec.org

ASU Biodesign: www.biodesign.asu.edu

Mesa Biotech Academy:

www.mpsaz.org/biotech

Flinn Foundation: www.flinn.org

PROFILE

Xan Simonson

Mesa's Xan Simonson is making a difference in Arizona science education. The coordinator of Mesa Public School's District Bioscience Programs, and director of the Mesa Biotechnology Academy, Simonson was named one of the "20 Women Who Will Change the Way We Live, Work and Play by 2020" by *Arizona Woman* magazine, www.azwoman@pni.com.

Simonson is past president of the Arizona Science Teachers Association and is a member of the Governor's P-20 Council, whose goal is to improve education in Arizona. Last year, the Arizona Bioindustry Association named her the Biosciences Educator of the Year.

Simonson has attracted numerous grants to the Biotechnology Academy, most recently a grant from Science Foundation Arizona. She also co-directs a grant from the National Science Foundation and was a guiding force in the creation of the recent Arizona Bioscience Education Pipeline Summit in Tempe.

"Bioscience is cutting-edge knowledge that our teachers need in order to help our students succeed," said Simonson. "We need the entire community working together to offer the best possible education in these new technologies." Contact Xan at nxsimons@mpsaz.org.

HAPPENINGS

A MESSAGE FROM KAREN A. CONZELMAN, DIRECTOR OF THE ARIZONA SCIENCE OLYMPIAD

“Putting an event like the Science Olympiad together is a little like assembling a jigsaw puzzle — each and every piece is important.

“This year we had nearly 400 participants from 22 schools from throughout the state competing in 25 different events. The awards ceremony recognized students ranked in the first seven places in each of these events as well as the overall top scoring teams and coaches. Catalina Foothill-Blue Team from Tucson placed first this year by a significant margin

and will be going on to the National Science Olympiad in Washington D.C. late this spring.

“We also awarded \$2,000 in scholarships/tuition waivers to the top finishers in four events, about \$2,000 in gift cards and cash to the top placing students, and more than \$1,000 to the student activity accounts of several schools.

“On behalf of our sponsors, the Arizona-Nevada Academy of Science, SRP, myself and the students and coaches from the high school teams from throughout the state, please accept my sincere and most appreciative thanks!”

The Science Olympiad was held in March at Glendale Community College. Karen, who is Assistant Department Chair of the Department of Biology at GCC, is a hands-on organizer of the event.



Karen A. Conzelman

MOUNTAIN VIEW TAKES TOP HONORS

Mountain View High School in Mesa is the new state champion in this spring’s Arizona Academic Decathlon.

About 380 high school students from 40 high schools in Arizona in all size categories competed in this year’s event. Two schools — Blue Ridge High School, Lakeside, and St. Johns High School, St. Johns — shared the small school championship.

SRP is a corporate sponsor of the annual event. Mountain View represented Arizona in the national finals in late April, and St. Johns competed nationally against small schools on-line at the same time. Results were not available at press time.



GETTING STUDENTS TO THINK ABOUT CLIMATE CHANGE AND THEIR RESPONSIBILITIES TO THE ENVIRONMENT

An upcoming workshop will bring life to the science and impacts of climate change by creating a thoughtful, hands-on classroom product to excite and educate students.

“Global Climate Change In the Southwest: An Academy for Educators” is a three-day workshop in June sponsored by SRP and the Arizona Foundation for Resource Education.

The Academy will explore:

- ◆ What is climate change: the science and perceptions
- ◆ What are the implications for climate change in Arizona and the Southwest
- ◆ How to bring life into the classroom on this timely topic.

Check back with *Learning Circuit* in the Fall to read first-hand accounts of the value of this workshop.



HIGH TECH U

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the photovoltaic arrays at SRP’s Agua Fria Generating Station, mock interviews, a mini college fair, and networking with professionals from industry and academia. In addition to the standard High Tech U activities, students participated in new activities that explored alternative energies, particularly solar energy and biofuels.

Solar energy was a major theme. Students created their own solar arrays, visited SRP’s solar array at Agua Fria Generating Station, and presented schemes for solar energy production in developing nations.

Glendale Community College, Phoenix College, Arizona State University Polytechnic, Northern Arizona University, and the University of Arizona were among the educational institutions that participated in the mini college fair on day three. One student stated that “learning about college schools and what they offer” was the best part of the third day.

All of the students agreed that High Tech U met or exceeded their expectations in terms of learning and fun. Employees from SRP and faculty members from Glendale Community College donated their time on all three days to teach various High Tech U activities.

The High Tech U program has several overarching goals: increase students’ knowledge of high tech industries, introduce students to education and career pathways in high tech industries, give students an opportunity to feel successful in a business and college environment, and provide the sponsoring organization with visibility in support of their community. For more information, contact the Maricopa Advanced Technology Education Center (MATEC) at www.matec.org

ASU WILL HOST EDUCATION FAIR

Arizona State University will host the Fourth Annual Education Fair at the Polytechnic campus on October 4, 2008, for administrators and educators of all educational levels in Arizona.

The goal of the Education Fair is to enhance instructional innovation by providing opportunities for networking and sharing resources between community partners, educators and university students. More than 50 community partners have participated in past Education Fairs, including the Botanical Gardens, American Red Cross, Arizona Museum for Youth, Leapfrog School House, Riparian Institute, Science is Fun, and many more. SRP and Arizona Foundation for Resource Education (AFRE) are the primary sponsors for this exciting event.

Attendees will have many opportunities throughout the day to gather new ideas, information and

DON'T MISS IT
At the Polytechnic Campus
School of Educational Innovation and Teacher Preparation
4th Annual Education Fair
October 4, 2008
8:00 a.m. - 3:30 p.m.

freebies. In addition to a large Community Resource Fair, breakout sessions will be available. Participants can select breakout sessions of their choice and take away lessons that can be quickly and easily implemented in their classrooms.

This year, the Fair's educational opportunities will include content area workshops, which can be used to meet the professional development requirements for many local districts. The breakout sessions and workshops will range from 60 to 90 minutes, and will cover a wide range of content including science, math, reading, social studies, art,

educational games and more. Each session emphasizes the use of community resources in the classroom and content is aligned with state academic standards.

The Fair is open to educators from 8:00 a.m. to 3:30 p.m., in the Student Union Ballrooms and the Polytechnic classrooms. Registration for the events is only \$25 to \$50. Full-time education department students at ASU, CAC or MCCD can attend for \$10 to \$20 with student ID. Check-in will be from 7:30 a.m. to 9 a.m. in the Student Union.

For more information, contact **Dr. Debi Molina-Walters** at **480-727-1510** or by email at **drmo@asu.edu**.

PROFESSIONAL DEVELOPMENT ROAD SHOW FOR SCIENCE

An enthusiastic group of SRP engineers are taking their show on the road, visiting schools through the Valley to help train teachers in the basics of electricity and magnetism.

Who better to learn from than the SRP pros who practice what they teach? These engineers are members of Sci4Kids, an employee interest group that is all about inspiring kids in science. Take them up on their offer of providing you, as a science teacher, with the basics and materials to make science fun for students.

For more information, contact Tina Skjerping at SRP, **602-236-2497**, **tmskjerp@srpnet.com**.

NEW OPPORTUNITIES

Check out SRP's Web site for relevant, up-to-date information about education grants, workshops and trainings, materials and more.

At **www.srpnet.com/education**, the site is packed with new resources for parents, students and teachers. Visit the site regularly for updates and new opportunities.

ABOUT US

SRP is an electricity and raw water provider, offering free support to public, private, charter and home school educators in our water and electric service territories (Metropolitan Phoenix and Pinal and Gila counties) as well as Yavapai County, Page and St. Johns, Ariz.

MAILING ADDRESS

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P.O. Box 52025
Phoenix, AZ 85072-2025

FOR MORE INFORMATION


Contact SRP Community Outreach,
(602) 236-2484



RESOURCES FOR YOU

SRP offers a wide variety of published materials on the subjects of water, energy and the environment. Please refer to the *2007-09 SRP Education Resource Catalog*, visit www.srpnet.com/education or call (602) 236-2581.



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08-0862-01

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