



# MEEC

MOJAVE ENVIRONMENTAL EDUCATION CONSORTIUM



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## STEM takes center stage at YELC

**M**ore than 200 students and team advisers from schools throughout the High Desert participated in MEEC's 13th annual Youth Environmental Leadership Conference (YELC) and STEM Service-Learning event held on Saturday, October 27th, 2018 at Granite Hills High School in Apple Valley. Science, Technology, Engineering and Math (STEM) is a vital step towards providing students with the needed skills and technological familiarity that will enable them to take part in the exciting economies of the future.



*Students and their advisor learn about the importance of air quality during STEM Fest at YELC 2018*

This year, MEEC was pleased to once again incorporate Maker Education into the event. Maker Education is a technological and creative revolution taking place around the world and the next step in advancing STEM education in the classroom. It is an approach to problem-based and project-based learning that relies on hands-on, often collaborative, learning experiences as a method for solving authentic problems. The Maker philosophy combined with STEM Service-Learning prepares kids to solve problems their teachers never anticipated with technology we can't yet imagine.

MEEC was pleased to welcome back guest Keynote Speaker Joel Greene, host of PBS's "Curiosity Quest" who energized and motivated the 27 teams to "be the change" before they spent the day rotating through workshops learning about water conservation, robotics, and coding using Makey Makey.

Students and advisors enjoyed many fun and informative hands-on activities during "STEMFest," an exhibitor fair that included Mojave Desert AQMD, Advance Disposal, Women in Mining and Daisy Gibson School's Femineers.

## SPONSOR SPOTLIGHT: MOJAVE DESERT AQMD

The Mojave Desert Air Quality Management District having just surpassed 25 years as an independent agency wants to remind High Desert residents that "Clean Air is Everybody's Business." Geographically, MDAQMD is the second largest air district in the state, spans two counties and serves more than 600,000 residents.

MDAQMD's mission is to "to attain and maintain a healthful environment while supporting strong and sustainable economic growth." The district works with local businesses to ensure they are not causing pollution, and alerts the public when the air quality is bad enough to affect the health of residents. Encompassed in the district's mission is a wide array of duties and responsibilities. One major driver of the district is community education. The district's Community Relations and Education department is dedicated to educating the area's youth on the importance of maintaining healthy air quality. Through community presentations, contests, social media campaigns and the school flag program, the district is continuing to expand its outreach efforts to ensure a healthy air quality for generations to come.

"Few things are more important than finding fun ways to educate our next generation of leaders on the importance of air quality and environmental stewardship," said Brad Poiriez, Executive Director of the Mojave Desert Air Quality Management District.

MDAQMD is proud to serve as the lead supporting agency of the Mojave Environmental Education Consortium, a separate non-profit organization whose sole focus is to educate teachers and students on a wide array of environmental issues. Activities that MEEC undertakes include an annual solar oven cook off, multiple teacher workshops, annual scholarship and awards banquet, a Youth Environmental Leadership Conference and much more. MDAQMD not only serves as a financial sponsor of the non-profit organization but also allows several District Staff members to assist MEEC with their annual events.

For more information on MEEC visit [www.meeconline.com](http://www.meeconline.com). To learn more about educational programs offered by MDAQMD visit [www.mdaqmd.ca.gov](http://www.mdaqmd.ca.gov) or call (760) 245-1661 ext. 3001. Be sure to follow the district on social media @MDAQMD on [Facebook](#), [Instagram](#) and [Twitter](#).



TEACHER

FEATURE.



### Meet Monica Cooper

Monica Cooper, a first-grade teacher at Gus Franklin Jr. STEM Elementary School in Victorville, CA is humbled and honored for the privileged task of educating Adelanto Elementary School District (AESD) students. "Teaching is a rewarding profession," she shares. "I am a proactive educator who deeply cares about the future of students, their families and education."

A MEEC Teacher Ambassador and lifelong learner, Monica advocates for quality professional learning (PL). She encourages her colleagues to actively participate in MEEC sponsored events. "MEEC PL opportunities introduce educators to best practices, strategies and hands on activities to create a solid educational foundation for students to experience environmental learning. MEEC workshops empower teachers to expose students to science with fun and engaging activities and lessons," she states. The CA Environmental Education Intuitive (EEI) curriculum is her favorite-shared MEEC resource. EEI uses environmental literacy as a context to help students learn science and history-social science.

After attending many MEEC's sponsored trainings, Monica's quest for learning more about environmental literacy became a passion. Her passion as a learner led her to volunteer as a facilitator for Population Education, Project Wild, Project Learning Tree and Project WET. "MEEC is the catalyst for many educators and their students on the topic of the environment and science. By collaborating, supporting and inspiring others with similar goals or interests to come together to bring about quality PL on the environment I am grateful to MEEC."

## Laughlin, NV plays host to 2018 EnviRetreat



MEEC's 2018 EnviRetreat was held on November 7th and 8th with five specially selected teachers taking part in the two-day event, which introduced them to a host of environmentally relevant educational sites. The 2018 event was held in Laughlin, Nevada.

Highlights of the event included a visit to Newberry Springs which included a tour of the Hector Mine, owned and operated by Elementis Specialties. Teachers learned about the geological requirements necessary to produce Hectorite, the rare earth mineral that is mined from the site. Attending educators were also given the chance to tour the Ivanpah Solar Project located outside of the California/Nevada State Line. The project is currently

the largest solar thermal power plant in the world.

In addition to the exciting place-based learning destinations, the group enjoyed a reception aboard the Colorado River Queen sponsored by the California Desert Air Working Group, which was simultaneously hosting its annual conference at the Aquarius Hotel and Casino. Proceeds from the annual CDAWG conference, which is sponsored by the Mojave Desert Air Quality Management District and the Mojave Desert Chapter of the Air and Waste Management Association, directly benefit MEEC. The reception provided teachers with the opportunity to mingle with MEEC sponsors and supporters as well as other environmental industry professionals.

Left: The following teachers were selected to participate in the event: L-R: Donna Hackney, Academy for Academic Excellence, Apple Valley; Luis Platero, Daisy Gibson School, Palmdale; Kathleen Hackel, Barstow High School, Barstow; Virginia Price, University Preparatory School, Victorville.

# Biomimicry teacher workshop wows in AV

Educators were treated to a one-of-a-kind experience at the Biomimicry Teacher workshop on October 16th. Hosted by Lockheed Martin, the two-hour workshop provided teachers with an introduction to biomimicry and approaches for incorporating the concept into standards-aligned science education. Teachers enjoyed hands-on lessons that were co-taught by leading Biomimicry experts & educators from the Biomimicry Institute and BiomimicryLA. Teachers learned exactly what biomimicry is and how to use it to spark interest and promote problem solving skills for their students. During the workshop, participants observed wolf spiders and discussed how to mimic spider's legs to engineer hydraulic lifts.

Each participating educator got to bring home a hydraulics lift engineering kit in addition to resources and lessons that could use in their classrooms to inspire their students to problem solve by looking at nature in a different way.

*Below: Teachers assemble hydraulic kits during Lockheed Martin's teacher workshop.*



## Outstanding environmental science fair projects honored

This winter and spring, the Mojave Desert Air Quality Management District, the Mojave Environmental Education Consortium and the Mojave Desert Chapter of the Air & Waste Management Association invited schools and districts from within their boundaries to participate in the 2019 "Outstanding Environmental Science Project Awards" program.

The purpose of the program - which is open to students in grades K-12 attending school in the High Desert portion of San Bernardino County, Blythe and the Antelope Valley - is to promote environmental education in local schools. Together, the MDAQMD, MEEC, and the local chapter of A&WMA - an international organization of environmental professionals - have joined forces to recognize local students who develop outstanding environmentally-themed projects for competition in local or regional school science fairs. Winners of school-level competitions will be awarded \$25 gift cards, while winners of district, regional and higher level science fairs will receive \$50 gift cards. Volunteers from all three organizations acted as judges at 18 local school, district and regional science fairs.

**Congratulations to all of this year's winners!**



*Above: Chris Anderson, Mojave Desert AQMD Air Quality Engineer judging science fair projects at Maple Elementary School in Hesperia.*

## SoCal Gas celebrates winning writers

The Mojave Environmental Education Consortium (MEEC) and Diamond Sponsor SoCal Gas recently challenged High Desert students to put their pens to paper with their essay contest entitled "The Energy Balancing Act," which focused on the importance of getting energy from many different sources - including natural gas. On March 21st, the winners and their families gathered for an awards ceremony held at the Mojave Desert Air Quality Management District office in Victorville. Winners of the 1000-words-or-less contest received special certificates and gift cards for their insightful views on maintaining a balanced energy portfolio.



*Above: MEEC/SoCal Gas Essay Contest Winners: Front Row (L-R): Ana Marie Polanco, Brentwood Elementary School, Victorville; Sameer Ferguson, Brentwood Elementary School, Victorville; Ezekile Leleimen, Montara Elementary School, Barstow; Carson Perry, Sage Oak Charter School, Victorville; Ashly Perez, Quail Valley Middle School, Phelan. Back Row (L-R): Chris Shank, Granite Hills High School, Apple Valley, Jessie Eidenberger, Granite Hills High School, Apple Valley; Nigel Camacho, Morgan Kincaid Elementary, Adelanto; Arturo Carrillo, The Idea Academy @ Cottonwood, Palmdale; Cassie Detwiler, Excelsior Charter School, Victorville; Jamission Perry, Sage Oak Charter School, Victorville.*



**MOJAVE ENVIRONMENTAL EDUCATION CONSORTIUM**

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**MEEC Executive Board**

**Brad Poiriez**

Mojave Desert Air Quality Management District

**Cheryl Vermette**

Helendale CSD

**Chuck McCall**

Granite Hills High School

**Dave Rib**

Mitsubishi Cement

**Desirea Haggard**

CalPortland Company

**James Stockdale**

Knight High School

**Jesse Cain**

3M Oak Hills

**John Kell**

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- High Desert Power Project
- Lockheed Martin
- Mojave Desert Air Quality Management District
- Northrop Grumman
- SoCal Gas Company

**Multi-Platinum**

- Mitsubishi Cement
- Southern California Edison

**Platinum**

- 3M Oak Hills
- CalPortland Company
- Liberty Utilities
- Rio Tinto Borates
- Women in Mining
- Victor Valley Wastewater Reclamation Authority

**Gold**

- Abengoa Solar
- Advance Disposal
- Air and Waste Management Association: Mojave Desert Chapter
- American Organics
- Antelope Valley Air Quality Management District
- CEMEX
- CADIZ Organic Farms
- Elementis Specialties
- Hi-Desert Water District
- Lone Vally Solar, LLC
- Sanitation Districts of Los Angeles County
- Mojave Water Agency
- Omya, Inc
- Tetra Tech
- Vulcan Materials
- Victor Valley Transit Authority

**Silver**

- Adelanto District Teachers Association

**Bronze**

- City of Barstow
- Helendale CSD
- Verdant Environmental