

What's The Big Idea?

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In the Beginning...



Kathy DiRanna accompanying Bill Honing, State Superintendent of Public Instruction, visiting CSIN schools in ABC school district in 1993.



Architects of California's science reform (circa 1991) include (from left): Tom Sachse (CDE Science Manager); Elizabeth Stage (CSP Director), Deborah Tucker (CSIN SSD), David Pummill (CSIN Lead Teacher) and Kathy Comfort (CLAS Assessment) at Scott Hays and Helen Huey wedding.



Early CSIN days with then Teaching Consultants Irma Hernandez Larin (from left), Rita Starnes and Deborah Tucker. Were they prophetic or what?!



SS&C Hub Coordinator Dean Gilbert acted as host with Dan Whisman SPAN SSD at skit night way back in 1995.

Celebrating 20 Years — The Party Continues

Learning and Working



As a SPAN participant, Marian Murphy-Shaw learned chemistry; today, she directs an MSP! Once a member of K-12 Alliance, always a member...

Having Fun



Bay to Breakers Race... remember the string of light bulbs in San Francisco?



Earth Science Cadre member Mike Filipow vogues with Jiminy Cricket who shared the Environmentality Project.



The standards movement called for strategies to help implement them in classrooms. Here Ann Pickett of San Bernardino City Schools, models augmentation in 2000!



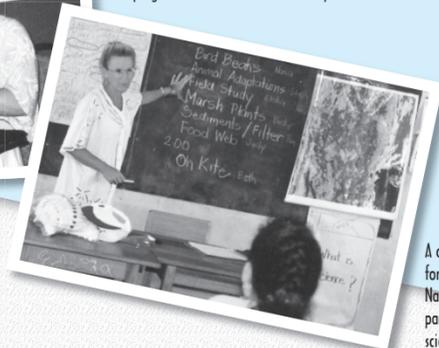
The True North: Ray Woods (from left), Denise Findley, Kathy Jones, Barbara Seguya-Jones, Michael Harris figured out how to stay in the program — and still are here today!



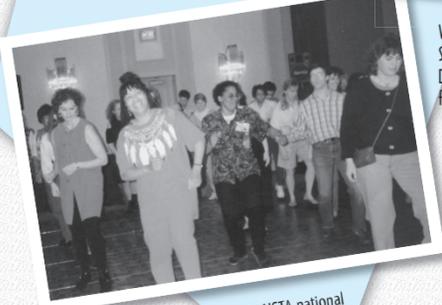
When Meridith Osterfeld (left), Regional Director for San Diego County, retired in 1998, then-Regional Director Phil Lafontaine offers his best nursing care for the aged.



Dana Flaten (left) and Regina Van Wey tackle a training piece in 1996.



A cadre member for umpteen years, Nancy Taylor prepped participants for a life science experience.



CSIN hosted a reception at the 1994 NSTA national convention in Anaheim when line dancing was all the rage!

Twenty years ago, 50 people representing elementary education came together to do something unheard of at the time: they wanted to learn how to build leadership within the science education community. These folks — a statewide director, one secretary and 25 newly appointed staff developers — created the California Science Implementation Network (CSIN), the basis for the K-12 Alliance. The ripples of that initial gathering are still felt today.

With the success of CSIN, middle and high school programs (SPAN and SS&C) were soon created to equally address reform issues on those levels. In time, all three organizations joined together to formally create the K-12 Alliance.

To date more than 5,000 elementary schools, 600 middle schools and 325 high schools have been impacted by this professional development program. Thousands of teachers and millions of students have

CELEBRATING 20 YEARS CONTINUED ON PAGE 2

Improving Education

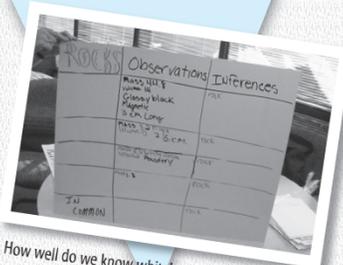
Rick Besocke, high school teacher in Montebello USD, works with elementary students at La Merced School in Montebello.



Here's Karen Cerwin all dressed up and presenting something on pedagogy.



Then Superintendent of Public Schools, Delaine Eastin (right), visits Shelley Alexander's middle school science class in Coachella Unified School District.



How well do we know whiteboards? Very very well!

CELEBRATING 20 YEARS CONTINUED FROM PAGE 1

been exposed to the "Big Idea." Currently the K-12 Alliance is a partner in 13 California Math Science Partnership Programs.

But the K-12 Alliance is more than mere numbers. It is the synergy of people who come from all walks of education to contribute to productive work. Though the years, K-12 Alliance folk have contributed to state and local policies, provided seminal work in building professional learning communities (Teaching Learning Collaborative); building conceptual frameworks (conceptual flows/*Making Connections*); using assessment for reflective practice (CAP/CLAS/PASS/CAESL); and creating model instructional materials (*Project Storyline/A Child's Place in the Environment/Earth's Resources/Strategic Science Teaching*)

The K-12 Alliance is the embodiment of the following quote:

**Be aware of your thoughts, they give rise to words
Be aware of your words, they become your actions
Be aware of your actions, they determine your character
Be aware of your character for from it flows vision
Be aware of your vision, from vision comes your destiny**

Enjoy a view from the past 20 years as we celebrate in pictures and in deeds, the work, the networking, the warmth and the joy of creating quality science programs for students in California and across the nation!

People...

Heeeeeere's Doris Waters getting ready for a 1990 institute.



Joining the group as the Regional Director for San Diego in 2000, Cindy Anderson is back again in 2006 as the project director for the Vista MSP.



Another clothing apparel addition for the staff developers in 2001 — their very own lab coats! Some faces include: Barbara Seguya-Jones, Cindy Anderson, Rita Starnes, Keith Thompson, Kendall Zollar, Michael Harris, Kathy Jones, Bruce Carnish, Roberto Runner, Janelle Goulart, Connie Fong, Evie Guerra, Ray Wood, Jody Skidmore, Jim Parker, Tina Lucas, Susan Zwiep, Bev Marcum and Phil Lafontaine.

Regional Directors in 2000 included: Jo Topps (from left), Karen Cerwin, Kathy DiRanna, Diane Carnahan, Cindy Anderson, Phil Lafontaine, Rita Starnes, Lonnie Martin, Tina Lucas, Judy Wilson and Larry Lack. Were they in deep water or what?!



LAUSD CSINNERS Gary Finkle, Shelia Bush and Judy Gordon join then CSIN TC Jo Topps at the 1996 CSTA convention in San Jose.



Kendall Zollar—we knew you when—helped us learn about non-verbals. Now famous, he still comes to visit!



Leading the flock or serenading the crowds? You decide...



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LEADERSHIP



The Creation of a TOSA

BY GRETA SMITH

Teachers on Special Assignment (TOSA) are not born — they are created. They are formed much in the same way that the Earth smashes, grinds, pulverizes, heats, cools and smoothes rocks from one type into another.

Taken from that known classroom environ and thrust into a world of pseudo-administration, many classroom teachers feel out of their element at first — not to mention having experiences that smash, grind, pulverize, heat, cool and smooth them into something different and new.

I became a TOSA at the end of the 2004-2005 school year when I had the task of moving out of my familiar classroom and into the great unknown.

Once my colleagues heard where I was headed, they all looked at me differently. I have to admit, I looked at myself differently. Here I was, a mere teacher, now having an official “office” at the district with a classroom to use for Teaching Learning Collaboration (TLC) planning days. In many ways, I felt I was swayed over to “the dark side” because of that office!

But when I saw the place where I was to work for the next academic year, I couldn't help but laugh. This was certainly no temptation! The walls did not go quite to the ceiling; you could hear everything going on in the building around you. The location was in a far corner — most of the time people weren't even aware that you were there.

Yes, it was somewhat disappointing, but I told myself, it could be worse. Then I looked at the walls — avocado green. OK, it was worse.

While I adjusted to the office space, I realized that doing the job was the bigger challenge. Trying to sell people on a new idea that might actually change their way of thinking is very difficult.

Participants were anxious to come during the summer and, struggles arose when participants realized they would also have to “do something” with their learnings during the school year. Attempting to move people in a direction they are not ready to travel is exhausting. Many had concerns about being out of their class and the time it would “take away” from their students.

Yet, through the struggles I know that my presence/guidance has impacted more than 70 teachers in a positive way. Over the course of the year, many people asked me, “Do you like what you are doing?” My answer was always the same, some days yes and some days no. I guess this is true of any job that involves participation, human beings and life in general.

My vision for the year was to impact teachers who would in turn impact students. I see movement, but I am always too impatient and I tell myself that change takes time.

I try to think of a rock — of the smashing, grinding, pulverizing, heating, cooling and smoothing that has to take place to change into something different than it once was. If you can recognize this process as what it is — one of change — then you truly do become something different than what you once were. And so do those around you. The key challenge is to make sure that it's all for the better!

TEACHING & LEARNING



Project-Based Learning: Jiminy Cricket!

Fifth grade students across the state are being encouraged to “think green” thanks to a program that engages them in authentic, “real world” project-based learning.

First launched in 1994, Jiminy Cricket's Environmental Challenge is a challenging and fun hands-on experience that compels students to learn more about their environment, the State of California and show them why it's cool to care about the earth.



GREEN CLASS — *Finalist in the Jiminy Cricket's Environmental Challenge, Mike Kenny (left) from George I. Sanchez Elementary assisted his students with the project “S.O.S. (Save our Species)” in which they explored how to help endangered species in California and around the world.*

The program is the result of a unique partnership with many organizations including: The K-12 Alliance, The Walt Disney Company, the California Department of Education, the California Environmental Education Interagency Network (CEEIN), the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, and California Regional Environmental Education Coordinator (CREEC) Network.

To date, more than one million students have enrolled in the program that challenges students to think and act responsibly toward the environment.

The Environmental Challenge encourages students to use their standards-based content knowledge and develop action projects that target real-world environmental problems. The challenge helps students select open-ended projects or problems with more than one approach or answer.

Students engaged in the Environmental Challenge generally work in cooperative groups for extended periods of time and are encouraged to seek out multiple sources of information about the topic of their project.

Though the end product is the driving force in project-based learning, it is the content knowledge and skills acquired during the project that are important to the success. And best of all, students have fun while they learn!

Consisting of two parts, the Environmental Challenge is made up of the pledge and the class project competition. The level of commitment is up to the teacher and their students. The pledge entails a small commitment, while the class project competition requires a more comprehensive project. It's easy, exciting and educational!

Of the many K-12 Alliance teachers who participated in the 2006 Environmental Challenge, two teachers from the Garvey School District in Rosemead helped their classes to become finalists.

Mike Kenny from George I. Sanchez Elementary assisted his students with a project entitled “S.O.S. (Save our Species).” They explored how to help en-

COLLABORATION



Rising Collaborations

BY JODY SKIDMORE

As the K-12 Alliance moves boldly through 2006, four more partnerships have joined in our march for improved science and mathematics education.

We happily welcome Marysville Joint Unified School District, Palm Springs Unified School District, Vista Unified School District and Wiseburn School District to our network. With four more CaMSPs — bringing the total to 13 — we certainly have lots of work ahead!

A major component of the CaMSP is establishing collaborative partnerships with institutes of higher education and other local organizations. Many times, these partnerships are a new connection, requiring a little more time, energy and trust to be successful. But the end result can be amazing work in which all parties benefit from the synergy.

In all the CaMSPs, we have established those mutually beneficial relationships with area universities, colleges and community colleges. University and community college instructors work side-by-side with local high school and middle school teachers to help participating teachers delve deeper into the nature of science or mathematics content.

These collaborations also have impacted the teaching at the university and community college level where instructors have realized the importance of pedagogical content knowledge, and inquiry-based and student-centered learning to increase student understanding. The professors are now using such K-12 Alliance tools as whiteboards and effective questioning.

Our new partners of higher education include: CSU San Marcos, Palomar Community College (Vista MSP), CSU San Bernardino, College of the Desert (Palm Springs MSP) Pepperdine University, UC Los Angeles, Los Angeles Trade-Technology College (Wiseburn MSP), CSU Sacramento and Yuba Community College (Marysville MSP).

An interesting collaboration this year took place in Marysville. Yuba Community College provided science content instruction and partnered with CSU Sacramento to establish a CT website. Now Marysville teachers can directly ask professors their science content questions. Teachers get answers and professors get service hours — what a deal!!

Another great collaboration is occurring with teachers in Vista who have an opportunity to “go back to college” where they can use scientific materials and tools and have real life lab experiences. Adding to that, mathematics coaches will also be working with elementary science teachers for the purpose of exploring mathematics applications to science curricula.

Palm Springs Unified School District's collaboration with College of the Desert and CSO San Bernardino is further enhanced with the newly added UC Riverside faculty member Dr. Pam Clute who is part of the leadership team for improving mathematics education in the Coachella Valley.

Many CaMSPs have industry partners that want to be involved with schools to promote math and science as a way inspire the workforce of tomorrow. They provide financial and education resources to help meet the schools' educational needs. This year, we welcome our new industry partners: Northrop Grumman, Booz Allen Hamilton and the Appeal-Democrat Newspaper,

Overall, collaboration is an effective means to the desired end. It is an inclusive and reciprocal approach to getting what both collaborators want. With a clear strategic vision, acknowledgement and respect for partners' expertise, a will for positive intent, and shared responsibility for the overall success of the program, successful collaborations are united in a desire to work together for the greater good.

PROJECT-BASED LEARNING CONTINUED ON PAGE 4

Summer of Fun — and Learning!

Imagine! The 20th year of summer K-12 Alliance Institutes! Once again, the learning was targeted for developing conceptual understanding enabling teachers to be master teachers in their classrooms. And for twenty years, the motto continues: “work hard, learn lots and enjoy.”

Snapshots this year included seeing staff developers and cadre at statewide meetings, regional directors “netting” the state together and everyone leading the charge.

Highlights from this year’s institutes are wide and varied. Here’s our annual roundup.

- **Tulare Institute**

The days were incredibly hot, hot and more hot. Tulare cows were swishing their tails to keep cool, but in a new school building, 60 returning lead teachers were in air conditioned coolness having a fantastic time learning content from the cadres. How’s that human body? What is the role of water on our planet? Let’s learn more about electricity and magnetism!

Highlights of the week included a visit to the Edison AG-TAC center along Hwy. 99 where electricity is the main focus and a visit to see a cadaver at the UC Davis satellite campus in Tulare.

- **Marysville Institute**

Yuba Community College graciously gave us their restaurant for our main meeting room for our 4th, 5th and 6th grade teachers from Marysville Joint Unified School District. The 44 teachers were immersed in 5th grade chemistry and 4th grade electricity and magnetism principles.

Although brains were stretched, participants enjoyed learning and the opportunity to network with their colleagues. The college also offered teachers the chance to bring their students to the campus for lab experiences. For teachers who could not bring the students to the campus, the instructors have graciously offered to bring the equipment out to the schools for the students.

Leslie Williams, Co-PI on the grant, says she is looking forward to providing more courses focused on the needs of elementary teachers.

- **Yreka Institute**

We all know that earthquakes and volcanoes occur as evidence everywhere in the far north. But this summer, Yreka teachers — after spending time in the lab — put on their hiking boots, grabbed water bottles and went into the field to study Earth science up-close and personal.

Visiting the Shasta Valley volcanoes where they compared the different types of lava rocks, going into the caverns and seeing fossils of ocean life were only a few of highlights of this institute. The final day was spent on a hike to Castle Craggs where everyone had opportunities to see evidence of our changing Earth. The finale was a great celebration luncheon with a panoramic view of Siskiyou County.

- **Lodi Summer Institute**

As temperatures rose in the heart of the San Joaquin Valley, 64 Lodi Unified teachers kept cool learning math and science at Christa McAuliffe Middle School. In mathematics, teachers continued to develop understanding on Multiple Representations, and added a focus on Notation and Language — using appropriate algebraic symbols and vocabulary to communicate algebraic thinking. Teachers also considered student misconceptions.

Conceptual learning was flowing for Lodi’s 4th and 5th grade teachers as they participated in Earth science, standards-based science content. Fourth grade teachers focused on geological processes while 5th grade teachers focused on weather.

Whether it was the Rule of 4, rocks, minerals, water or wind, teachers left with the tools, resources and background to tackle another busy year with students!

- **San Diego City Schools Summer Institute**

A milestone for the San Diego City Schools Summer Science Institute: for the first time, participants included K-12 teachers who all came together for the advancement of science education.

Content sessions included high school biology, chemistry and physics. Middle school teachers focused on chemistry, while elementary teachers attend life or Earth science.

Teachers increased their pedagogical skills in sessions such as: Writing In Science, Questioning, Conceptual Flow, Student Notebook implementation, the “Stories” of Science Units and 5E Lesson Planning.

Many of the teachers were involved in Focus Groups and looked at depth into assessment, high-level learners, English language learners, curriculum enhancement and writing in science. Each focus group came away with tools to share with other teachers that will enhance and assess student understanding



- **Vista Summer Institute**

Science and mathematics were alive and well in Vista. Middle school teachers tackled mathematical content and pedagogical skills, while 4th and 5th grade teachers sharpened their science knowledge and skills.

Teachers from the Vista summer institute were electrified with a field trip to the General Atomics fusion facility in San Diego. Participants were able to view the huge General Atomic electromagnet and observe scientists at work.

The General Atomics staff then extended the learning by providing interactive workstations on magnetism and electricity for teachers learn from and enjoy.

Beating the summer heat and relishing time in each other’s company, participants were treated to a mid-week Ice Cream Social with ice cream supplied by Baskin-Robbins and drinks from Starbucks.

- **Palm Springs Math Opens Doors**

The New Palm Springs CaMSP grant kicked off with a mathematics institute where 30 teachers from Palm Springs attended two weeks of mathematics content and pedagogy. In the first week, teachers tackled conceptual flows using their instructional materials and used student work to inform their instruction. In the second week, College of the Desert’s mathematics faculty worked with teacher/staff developers providing content background for teachers.

In addition Dr. Pam Clute, UC Riverside, presented a session on Mathematics in Everyday Life, a “jump-start” program for 5th grade mathematics that also offered networking time for local teachers. For participating teachers, the math institute certainly “added up” to new beginnings for quality math programs.

- **Coachella Valley Science Institute**

Coachella Valley is a “hot — hot” place in the summer and it sizzles with science. More than 100 teachers from Coachella Valley Districts of Coachella Valley Unified, Palm Springs Unified and Desert Sands Unified joined by Lake Elsinore Unified District attended the two-week institute. Participating teachers were either part of the CA MSP, or the CPEC Pathways program.

Program highlights included sessions on life, Earth, physical science for elementary as well as biotech and physics for secondary. Coachella Valley teachers from

K-12 attended the science institute together and have developed a wonderful learning community throughout the desert region. Several cadres planned field studies as part of the content sessions with the bio-tech cadre traveling to the university DNA lab for first hand lab experience.

- **Summer Institute Montebello/Garvey Style**

What is so unique about Summer Institute with Montebello and Garvey (a.k.a. MonteGarvey)? Here’s the breakdown:

- It’s a commuter institute. (oops...so are others)
- It combines mathematics and science. (oops...so do others)
- It has two neighboring school districts that make up the participants and staff developers for the institute. (oops...so do others)
- It offers at least two institutes at different times. (oops...so do others)
- So then it’s held at a retreat center, a peaceful environment that comes complete with a pool — that no one ever gets to use! (yep, this one is unique!)
- MonteGarvey Institute provided multitudinous networking, learning and resource possibilities so that teachers can go back to their sites and effect quality changes in their classrooms.

- **Ravenswood**

Ravenswood School District in East Palo Alto finished up their CaMSP program, taking full advantage of the science expertise available in the San Francisco Bay area. Professors from San Jose State provided 6th grade teachers experiences focusing on the Earth science content standards. Teachers enjoyed compelling activities that deepened their content knowledge, enabling them to be more effective in the classroom.

Seventh and 8th grade science teachers made the trek to the Exploratorium’s Teacher Institute for their four-week summer program where staff met teacher’s content needs, sharing lessons and resources.

“This has been such a valuable program for our district,” said district coordinator Ann Haigh. “It has made a huge difference in providing training for teachers that they would have never otherwise received. I know that students have also benefited from these worthwhile opportunities.”

- **Rialto**

As Rialto begins its third year of implementation with the CaMSP, they have much to celebrate because 120 teachers have participated in almost 200 hours of professional development that has proven to increase their science knowledge and instructional skills.

Life science was the content focus for the 2006 August and September institutes. Fourth and 5th grade teachers attended sessions on effective questioning and how to use science notebooks to further student understanding of concepts.

A core group of teachers have been working hard as science specialists, acting as liaisons between the district and their school. These teachers will begin the school year by implementing the Teaching Learning Collaborative for interested teachers at their site. They will also field-test the district’s new Earth science assessment.

- **Wiseburn**

The Wiseburn MSP is a collaborative of Wiseburn School District and several charter and private schools in the Los Angeles area. Science teachers from this collaborative joined the K-12 Alliance for its first ever CaMSP institute. Forty teachers in grades 4-8 learned to make science come alive through content sessions, conceptual flow, 5-E learning cycle and levels of questions. During the school year, the teachers will implement the strategies in their classrooms.

With the help of scientists and engineers from Pepperdine, UCLA, LA Trade-Tech, Northrop Grumman, and Booz Allen Hamilton these enthusiastic teachers look forward to in lab experiences, field trips and other real world experiences during the upcoming school year.

PROJECT-BASED LEARNING CONTINUED FROM PAGE 3

dangered species in California and around the world. This is Kenny’s second time as an Environmentalism finalist; last year he was a semi-finalist.

Another finalist was Alice Nishimoto from Rice Elementary. Her class studied the quality of water in Rosemead and discovered the water in Whittier Narrows was higher quality than the quality of the water in their own school drinking fountain!

As a statewide finalist in 2006 Kenny’s class received a Radio Disney lunch and entertainment for all fifth graders at Sanchez.

The grand prize for the state winner was an all expense paid trip to Disneyland for the entire fifth grade class and a parade in their honor.

Join your K-12 Alliance colleagues and use the environment as a context to strengthen your stu-

dents’ skills and knowledge in language arts, science and mathematics. Check out the Jiminy Cricket Environmentalism website, www.jceckids.org, to enroll in this year’s challenge.

Assortments of complimentary environmental education resource materials are available by calling the informational hotline at (800) 290-0299.