

SEP Newsletter

January 3, 1995 No. 22

WOMEN'S TRIAD PROJECT SCHOOLS AND PARTICIPANTS SELECTED

SEP Staff

The Women's Triad Project in Science Education got off to an exciting start at its fall retreat, held December 2 through 4, at the Ralston White Retreat Center in Mill Valley. In addition to Triad staff members Liesl Chatman and Lisa Weasel, the retreat was attended by the recently selected teacher/scientist teams who will conduct science clubs for girls and look at gender equity in coeducational settings at four San Francisco Middle Schools. Poe Asher and Kristen Sorensen, science teachers at Francisco Middle School, will work with UCSF scientists Erin Gensch and Deda Gillespie; Cathy Christensen and Erla Hackett at Giannini will work with Noelle Dwyer and Elena Levine from UCSF; Ann Clemenza at Martin Luther King, Jr. Middle School will work together with UCSF scientists Jennifer Dockter and Cynthia Fowler; and Judy Logan will host a club at S.F. Community School in partnership with Karen Kirk and Nicole Valtz from UCSF.

Schools were selected for the project based on an open application process in which teachers or groups of teachers submitted proposals detailing their plans for a club at their school, supported by the school principal. A selection committee composed of representatives from both SFUSD and UCSF (Elizabeth Blackburn, Liesl Chatman and Erin O'Shea from UCSF, and Bonnie Coffey-Smith, Debbie Farkas, and Helen McKenna from SFUSD) met to choose the four schools funded this year, as well as the women scientists from UCSF who are partnered with each school site. Although the project was only able to fund four of the six proposals submitted this year, there will be an opportunity for four more clubs to be sponsored by Triad in each of the coming two years. Look for

Triad participants at Ralston-White Retreat Center. Back row: Kirsten Sorensen, Erla Hackett, Willie the Wonder Dog, Cathy Christensen, Poe Asher; middle Row: Deda Gillespie, Jennifer Dockter, Cynthia Fowler, Ann Clemenza, Elena Levine, Judy Logan, Noelle Dwyer; front row: Lisa Weasel, Liesl Chatman, Karen Kirk, Nicole valtz. Missing: Erin Gensch.

announcements and calls for school proposals in the late spring.

The Triad Project has as its mission to effect change in the science education environment with regard to gender equity and does so at multiple levels. The school-based clubs will offer middle school girls the chance to

meet and explore hands-on science in an all-female environment. Research has shown that an all-girl environment fosters girls' enhanced self-esteem, which is a critical factor in girls' interest and performance in math and science. Additional studies have identified self-confidence as one of the
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ABOUT SEP

STAFF

Executive Director

Liesl Chatman

476-0337 liesl@itsa.ucsf.edu

High School Coordinator

Margaret Clark, Ph.D.

476-0338 mrcsep@itsa.ucsf.edu

Middle/High School Coordinator

Helen Doyle, Ph.D.

476-0300 doyle@cgl.ucsf.edu

City Science Project Director

Janice Low

476-6930 citysci@itsa.ucsf.itsa

City Science Admin. Ass't

Cynthia Gusman

476-6937 citysci@itsa.ucsf.itsa

Triad Project Coordinator

Lisa Weasel, Ph.D.

502-5137 lhw@itsa.ucsf.edu

FAX: 476-9926

Resource Center: 476-0300

The Science and Health Education Partnership (SEP) is a collaborative effort between the University of California at San Francisco (UCSF) and the San Francisco Unified School District (SFUSD). Its mission is support high quality science and health education. SEP is the organizational umbrella for the UCSF end of the partnership and is made up of a collection of core program components and specially funded projects. Core programs include equipment and supply donations to schools, various partnerships between UCSF volunteers and SFUSD teachers, the operation of a resource center, and the coordination of the SEP Student Lesson Plan Contest. Specially funded projects include *City Science*, *The Women's Triad Project in Science Education* and summer research internships for teachers and minority high school students. SEP also provides support for SFUSD projects and initiatives including *SF BASE*, and the implementation of newly adopted k-8 science and health curricula. SEP is made possible through funds from NSF, NIH, Howard Hughes Medical Institute, Genentech, Herbert W. Boyer, and the UCSF Chancellor.

SFUSD Superintendent Waldemar Rojas Visits City Science with Bruce Alberts

Waldemar Rojas, Superintendent of the San Francisco Unified School District, visited City Science the morning of Saturday, November 5. Bruce Alberts, President of the National Academy of Sciences and Principal Investigator of the City Science Project, introduced Mr. Rojas to an audience of 80 City Science teachers gathered for a DNA workshop at UCSF. Mr. Rojas was generous with his time, offering the opportunity for numerous questions at the end of his talk.

Mr. Rojas noted that all of the activities that are on the cutting edge in science education reform exist in San Francisco, but that they need to be supported with dollars. "How can we get on the information highway in a classroom with one electrical outlet?" He outlined fiscal and budgetary issues and changes surrounding Title I moneys, class size, split grades, and technology.

At the high school level, Rojas stressed a movement toward competitive schools that make improvements by viewing "youngsters as customers," and that are implement-

ing strong projects such as the AAAS Project 2061.

During his talk, he emphasized the connection between instruction and students, urging teachers to "move toward teaching kids as opposed to teaching content." While he supports site-based management in schools, he expressed concern over the emphasis on governance instead of instruction. "Get off the issue of governance--it bores everyone. Teachers don't want to order books! School-based management needs to be about instructional strategies--what is it that the schools tell the customers they're doing?"

After commenting that City Science teachers are the vanguard of reform efforts, he punctuated the point by adding, "We need to catch up with *you*." Rojas also praised Maria Santos, Supervisor of the SFUSD Math/Science Unit and also present, saying that she is "one of the few administrators that I don't have to tell to dream and think big."

"What *we* know isn't important; what you know is, because you work with the children. There's no sense of despair here. Continue to dream, to prioritize, to breathe that sense of life and vitality; be the professional that you are."

Tracy Stevens takes City Science Teachers along with the Superintendent through the process of dissolving cell membranes to release DNA. Tracy had none other than Bruce Alberts as her illustrator.

On November 5th, 80 City Science elementary teachers donned lab coats and assembled in the 11th floor Pharmacy Lab. They were there to participate in a hands-on lab session on DNA conducted by 13 UCSF scientists. Volunteers Tracy Stevens and Chris Field organized the day, using a set of experiments developed by Helen Doyle, SEP Middle School Coordinator. During Tracy's introductory activity, Bruce Alberts received enthusiastic acknowledgment for his impromptu illustrative diagrams, drawn while Tracy was talking. As the day progressed, teachers' excitement grew with their new understanding of how DNA samples are analyzed and used in forensics and research. Teachers and scientists alike enjoyed extensive discussions about the power and the potential limitations of so-

Sandip Datta watches as City Science Resource Teacher Andy Estrin and Sophie Tom add enzymes to DNA samples.

City Science Teachers Explore DNA with UCSF Scientists

From the perspective of Steve Weinstein, scientist from the DeFranco Lab:

I recently participated in a SEP-sponsored activity that brought together SF public school teachers and UCSF scientists like myself. The program featured a fictional murder case to be solved by the teachers with the aid of scientists. The key pieces of

evidence in the case were (simulated) DNA samples taken from the murder scene. These were analyzed by the teachers by cutting the DNA with specific enzymes, then separating the pieces on agarose gels by electrophoresis. My job was to help the teachers interpret the patterns of DNA fragments they had generated. The teachers proved to be excellent sleuths

and had the DNA samples and the case "sized up" in short order. I was amazed by how quickly the teachers grasped the concepts of molecular biology and the thoughtfulness of their questions. From my perspective, the program was very enjoyable and successful. The teachers were exposed to some new science to which they responded enthusiastically, and I had fun playing the role of "teacher" for the day. Some comments from the teachers:

"I expected something complex and way over my head. The scientists set up a wonderful hands-on experience for us. They did a wonderful job simplifying complex procedures."

"Now I understand how DNA is isolated and identified. It was very exciting to see. What a well organized lab!"

called DNA fingerprinting.

SEP, City Science, and SFUSD teachers all thank the following scientists for donating their time and talents to create a great learning experience: Lisa Belmont, Vivien Chan, Marian Chin, Margaret Clark, Sandip Datta, Chris Field, Carolyn Koo, Nancy Gerber, Kent Nybakken, Jim Richards, Trish Roth, Tracy Stevens, and Steve Weinstein.

SFUSD elementary teachers Dorothy Williams and Jenny Louie-Hall get ready to load a gel with the help of UCSF volunteer Marian Chin

MedTeach Teams Placed in 9 SFUSD Middle Schools

by Paul Wallace

The MedTeach program entered its fifth year on November 21 when a group of medical students gathered over pizza and soda to choose teachers to work with during the upcoming quarter. This program continues to be one of the most popular extracurricular activities amongst first year medical students at UCSF. It always attracts a great deal of interest from middle school teachers in the San Francisco Unified School District as well.

MedTeach is a student organization that seeks to promote interaction between members of the UCSF student body and the teachers and students of San Francisco Middle Schools. Every Wednesday morning cars full of enthusiastic medical students fan out

across the city, and groups of 3-6 medical students spend a few hours in sixth grade classrooms teaching about biology and medicine and addressing health education issues. The emphasis is on interactive learning, so much of the time is spent in smaller groups doing simple experiments or working on projects. Past programs have included dissection of kidneys and other organs, examination of lung tissue from smokers, skits dealing with drugs and alcohol use, and assembly of model skeletons. Many of the activities center around specimens or models provided by the SEP Resource Center. The goal is not only to teach, but also to provide role models in the

science and health professions.

This year there are thirty-nine medical students working in teams with eleven sixth grade teachers at nine different schools (Everett, Visitation Valley, Horace Mann, Potrero Hill, Herbert Hoover, Twenty-first Century, Aptos, James Denman and Luther Burbank) participating in the program, an expansion of the program over last year. In previous years, the program has received high praise from all parties involved, and we enter this fifth year with a high level of enthusiasm and excitement.

Paul Wallace is a second year medical student who was a very active and effective MedTeach volunteer last year at James Lick MS. This year Paul is the student coordinator for MedTeach.

(Triad Project, from p. 1)

few true differences between boys and girls in relation to performance in math and science. It is hoped that by encouraging girl's self-esteem in the club setting, their participation and performance in the classroom will be positively affected.

Teachers and scientists involved in the project also stand to benefit from their participation. Scientist and teacher participants will collaborate in the research component of the project, where teachers will have a chance to look at their own teaching behaviors and strategies and student interactions with respect to gender equity. Through their involvement in the clubs, scientists will gain valuable leadership and teaching experience. As UCSF Professor Elizabeth Blackburn, a member of the Triad selection committee, commented, "these young scientists are leading the way and I think that we as faculty should follow."

In addition to initiating the project and offering an opportunity to plan for the year's clubs, the retreat provided an introduction to the Triad Project's research component. Joining Triad from the Stanford School of Education's Program in Complex Instruction were Nicole Holthuis and Julie Bianchini, who described the

practice of Action Research, through which teachers and scientists together can seek to improve and understand gender equity in the classroom by combining reflection with action. Nicole and Julie stressed the special kind of expertise teachers bring to such research, since they have knowledge of their classroom that can often not be obtained by outside educational researchers. It is planned that the results of the Triad Project's research into teaching strategies and behaviors promoting gender equity in science will be made available to teachers in the district and members

of the UCSF community through workshops held in subsequent years. National dissemination of the results is also incorporated into the project.

After the planning sessions held at the retreat, it is anticipated that the clubs will start up following winter vacation. Clubs will meet at least twice a month at the schools, with time for hands-on activities as well as field trips, demonstrations, and guest scientist visits. Teachers and scientists will meet monthly with Triad Staff in workshop sessions designed to address gender equity issues and provide educational and leadership training, and a follow-up retreat will be held in the spring.

*Triad participants
Erla Hackett, Cathy
Christensen, Elena
Levine, Deda
Gillespie, and Noelle
Dwyer explore
instructional
methods through
building a gabled
bridge.*

New Workshops for SF BASE

by Len Poli

Biotechnology and genetic engineering are in the news almost every week: the gene that may be responsible for obesity was isolated; better food products are being created; and vaccines for HIV and other disease are being designed. San Francisco high school students are learning first hand the scientific basis of biotechnology and are trying out some of these experiments in the classroom themselves. This unique opportunity is made possible by the San Francisco Biotechnology Alliance in Science Education (SF BASE), a big name for an ambitious and growing project.

SF BASE is a collaborative partnership involving SFUSD, UCSF, San Francisco State University (SFSU), and City College (CCSF), all of which are represented on the Steering Committee to help guide the direction of the project. One of our goals is to incorporate inquiry-based laboratory investigations into the high school biology core curriculum that focus on molecular genetics and biotechnology. Start-up funds for SF BASE were provided by a grant from the Toshiba Corporation, and for the last four years major funding has come from the Genentech Foundation. This year, long time SF Base participants Len Poli, now Director of SF BASE, and Russ Janigian, both of Mission High School, have been released part-time from classroom duties so they can devote more effort to developing SF BASE experiments.

The primary activities of SF BASE are: (1) program implementation support; (2) curriculum revision; and (3) professional development in biological sciences and molecular biology. The project provides all the equipment, supplies, protocols, and support personnel for teachers who wish to include hands-on investigations in DNA technology in their curriculum. The SF BASE Kit contents are sufficient for a class of 35 students working in pairs. Teachers use the kit for three weeks. The kit is then restocked and sent out to another classroom. Some of the laboratory experiences that are possible with the equipment include:

- Skill-building activities emphasizing

Cindy Keleher of Stanford's Human Genome Mapping Center works with students at Mission HS

- the tools of molecular biology
- Isolation of DNA from living cells
- Construction of a recombinant DNA molecule
- Transformation of bacteria with recombinant plasmid DNA

New, updated units that are being designed for implementation in the next year include:

- DNA fingerprinting
- Effects of UV radiation on cells
- Isolation of giant chromosomes from *Drosophila*

The success of the SF BASE program depends on support from our partners. Scientists visit the classroom during experiments, provide hands-on support during the sometimes complicated experiments, and may give short presentations about the significance of these activities in the world of science and medicine. Specific examples where UCSF volunteers are needed include helping students with micropipetting, gel analysis, and in the upcoming pilots of the exciting new curriculum units listed above.

A similar critical partnership exists between SF BASE and the CCSF, which in the past has provided materials to restock the kits between classrooms through the hard work of Anna Marie Bratton. Currently, the Teacher Education in Biology (TEB) at SFSU provides a huge amount of support by making media, preparing DNA samples, providing stock cultures, and preparing chemicals--all of which are necessary for a successful experience in the high schools. Cindy Murphy-Erdosh and Lane Conn of TEB are also working hard on curriculum development projects.

During the past year, UCSF scientists Helen Doyle, John Murnane,

Shoumen Datta, and other volunteers presented professional development workshops for the SF BASE teachers, including activities with *Drosophila* and yeast genetics. An important outgrowth of these workshops is curriculum development, which are currently in draft stages. In addition, we have just begun piloting a DNA fingerprinting investigation this year that was stimulated by a presentation at UCSF on "Public Science Day" during last year's American Association for the Advancement of Science convention. Professional development workshops planned for this year include one on plasmid DNA preparation by Cindy Murphy-Erdosh of SFSU, and another on the epidemiology and detection of infectious diseases using PCR (polymerase chain reaction) technology by Eva Harris of UCSF.

In addition to support from the Genentech Foundation for replenishing materials and updating labs, equipment donations have been obtained from UCSF. Thanks go out to the donating labs and to the many eager UCSF classroom volunteers. Finally, thanks also go to the Science and Mathematics Resource Unit of the SFUSD, which supports SF BASE's professional development activities by releasing teachers from the classroom to attend workshops and by providing space in the Math and Science Center.

Len Poli spends half his time as a teacher at Mission High School and the other half as Director of the SF BASE program. Len has been involved with SEP on just about every level, including serving on the SEP Steering Committee and having a long-standing partnership with UCSF Professor Dick Shafer.

Minneapolis Project RISE

This past Halloween, SEP folks joined with friends from Pasadena, Minneapolis, and Washington, DC in presenting hands-on sessions in inquiry-based science education at a one-day workshop, "Science Education Partnerships, National Standards, and School Reform" held at the University of Minnesota. The collaborative sponsors included the University of Minnesota, Minneapolis Public Schools, Project RISE, and Sci/Math^{MN}. Liesl Chatman teamed up with Cindy Murphy-Erdosh, Co-Director of the Teacher Education in Biology (TEB) program at San Francisco State University, and former SEP volunteer. They presented a hands-on workshop using the FOSS Human Body kit, a fourth grade level curriculum unit. Other presenters included Jim Bowers and Barbara Bray from California Technical Institute and Pasadena Unified School District; Patricia Hoben, Minneapolis RISE Coordinator; and Jan Toumi, National Project RISE Director and former director of City Science.

Pasadena's Project SEED

On November 1st Janice Low, City Science Director visited Project SEED, an elementary school science project in Pasadena. The trip was very informative because, like City Science, the SEED Project is a partnership between a school district (Pasadena Unified School District) and a university (the California Institute of Technology). Jennifer Yure, the Project Director, has been guiding the project for five years and has much valuable experience that she shared. The two projects have many challenges in common: providing professional development for new teachers and for experienced teachers who change grade levels, maintenance of materials and kits, curricular enhancement, and attracting the involvement of principals and parents. Both projects were initiated with funding from the National Science Foundation. NSF funding for Project SEED has now ended, but the Pasadena Unified School District, which is about half the size of San Francisco, is supporting the continued work of the project through its own funding.

Caroline Schooley tries an experiment at ASCB that involves immobilizing elbow joints.

ASCB Workshop

On December 10, SEP participated in an all-day workshop at the American Society of Cell Biologists (ASCB) Annual Meeting held at the Moscone Center. The workshop, "Connections for Excellence," was organized by Maureen Shiflett, Director of the National Research Council (NRC)'s Education West. The primary goals of the workshop were to inform scientists

about current reforms in pre-college education and to present examples of scientist involvement with teachers and students. Information about the newly released National Science Education Standards was given by Donna Gerardi of the NRC. Barbara Schultz, President of the National Association of Biology Teachers, presented examples of teacher-scientist partnerships, and Robert Bloodgood, Chair of the ASCB Education Committee, discussed the role that professional societies can play in supporting pre-college education. SEP Executive Director Liesl Chatman gave an overview of SEP, illustrating the many levels of UCSF scientist and clinician involvement with the San Francisco public schools. For the session "Science as Inquiry," Middle School Coordinator Helen Doyle coordinated the presentation of hands-on activities for workshop participants using materials from the *FOSS Human Body* kit and the SEP Resource Center. Many thanks go to Robin Sharp, S.F. Community School; Ellen Champlin, Lakeshore School; and UCSF participants Tracy Stevens, Karen Kirk, Naomi Robinson, Mark Weisskopf, and Elena Levine for helping plan and execute this successful workshop.

Middle school students from James Lick get a first-hand look at electron microscopy with UCSF microscopist Mei Lie Wong.

Project Micro

Teachers and microscopists from the Bay Area joined forces at the Lawrence Hall of Science (LHS) on Nov. 17th to field test a middle school curriculum developed by the Microscopy Society of America in collaboration with Lawrence Hall of Science. Susan Brady, Director of the STEP Program at LHS and Caroline Schooley, Educational Outreach Coordinator for the Microscopy Society, put together a great array of creative workshop stations involving microscopy.

Five San Francisco teachers (Yvonne Chong-Wolf, Jane Gerughty, Joan Regan, Kristen Sorensen, and Irene Uesato) and SFUSD Middle School Science Coordinator Roberto Bonilla were able to attend through the SFUSD Mentorship and the Middle School Science Implementation Team programs. UCSF was represented by Mei Lie Wong, Helen Doyle, and Liesl Chatman. UCSF volunteer microscopists interested in this partnership opportunity should contact Helen Doyle.

SEP Student / Teacher Internship Program Adds New Features

SEP Staff

Since 1988, SEP has conducted a summer research internship program for high school students and teachers. In recent years, 10-12 students and 2 teachers have enjoyed the opportunity to become a member of a UCSF research team and learn what daily life in the lab is really like. The program will continue to offer internships this year, with some expansion of the program and some changes in the eligibility requirements. SEP has just been awarded a new 3-year grant by the National Institutes of Health (NIH), which will provide most of the funding for the internship program. This grant follows new guidelines from NIH, which has the goal of encouraging students from ethnic groups that are most underrepresented in science to consider a scientific career. This means that this year, the criteria for selection of students will be somewhat more closely defined than in the past, giving preference to African-American, Latino, Southeast Asian, and Pacific Island students and including women students from a Chinese background.

In order to help prepare students better for their summer lab experience, SEP is selecting students earlier this year, so that participants can attend two preliminary workshops where they will learn some basic lab skills. In December, SFUSD science teachers were asked to nominate qualified students, and all those nominated were invited to attend an informational session to get more information about the program and some suggestions for how to prepare the strongest possible application.

We expect to host 10-12 students again this year. They will work 20 hours a week with a mentor in the lab (usually a post-doctoral fellow or graduate student, sometimes a faculty member), attend a core series of weekly sessions with the other program participants, and prepare both an oral and written report at the end of the summer. Previous student interns have

worked on a great variety of projects, ranging from cloning genes to experimental surgery in animals to studies in behavioral sciences. Intern mentors have generally found their involvement with the students both stimulating and personally rewarding.

The eligibility guidelines for teacher interns have been expanded, making the program now available to teachers at any grade level K-12, rather than being limited to high school teachers as in previous years. If the teacher is not from an underrepresented minority group, his or her classes need to contain a substantial proportion of students from an underrepresented minority group, but most SFUSD teachers meet that qualification. The teachers work full time for ten weeks on an on-going research project, during which time they also make plans for how to use their experience to enhance their classroom teaching. Ideally, the teacher and mentor develop a continuing partnership that gives the teacher's students a connection with the laboratory and gives their study of science more depth and understanding of the way science is done and its impact on society.

With the initiation of the new grant, SEP also plans more follow-up of student interns. If they are not graduating seniors, students will be encouraged to invite their lab mentors to visit them at school the following school year, and mentors will be encouraged to invite the students back to the lab. SEP will also request information from previous interns about their choices of majors in college and their career plans.

The internship program is a very popular component of SEP, and we are always eager to provide these opportunities for as many students as possible. The internships have been powerful motivating experiences for participating students and teachers, and the lab mentors have found working with the interns both stimulating and rewarding. If you or any of your colleagues would like to apply for a teacher intern position or host either a student or

SEP Lesson Plan Contest Underway

Like last year, the 8th Annual SEP Science and Health Lesson Plan Contest for SFUSD middle and high school students is underway earlier than in past years. February 17 is the entry deadline, and presentations will occur between March 20 and April 7. SEP Middle and High School Coordinators Helen Doyle and Margaret Clark are available to visit schools and talk with teachers and students about the contest. Helen and Margaret are also actively recruiting UCSF Contest judges for this always popular event.

The purpose of the contest is to get teams of students working together in order to create their own lesson plans on a health or science topic. They also need a teacher to sponsor and coach them. Teams then submit their lesson plans as entries for the contest. After reviewing the entries a panel will select 20 middle school teams and 20 high school teams as finalists. This is when the fun really begins. Each

(Lesson Plan Contest to p. 8)

SEP Resource Center

The SEP Resource Center keeps growing in use. SEP is working hard to keep up with the demand through acquiring more materials and scheduling SEP staff to be available during peak hours. With our increase in staff, SEP has been able to staff the Center from 3:30 to 5:00 PM every weekday afternoon.

The Resource Center is a lending library of over 1,000 pieces of science and health education materials. It is available to any SFUSD teacher or UCSF volunteer working with a San Francisco public school. It is generally open weekdays from 9:00 AM to 5:00 PM and by appointment. Contact the appropriate grade level SEP coordinator for more information.

Want Ads

WANTED: MACINTOSH computers, monitors and external floppy or hard **disk drives** — for schools and the SEP Office. Also **IBM computers** (especially 386 models) for schools.

WANTED: LAB COATS in LARGE sizes, for student lab assistants.

DRY ICE, LIQUID NITROGEN: Sources needed for occasional donation — 1-2 times/yr.

ANATOMIST NEEDED: Someone who can look at a some of our anatomical models and help us make identification keys for teachers, students and SEP volunteers who use our resources.

FEEDBACK REQUESTED on the new format of the SEP Newsletter. How does it look? Are the articles interesting? Call your favorite staff member and leave a message!

WRITERS NEEDED who are interested in contributing to the SEP Newsletter about their experiences in the partner-

AVAILABLE TO TEACHERS: SEP has older model computers and printers coming in on an on-going basis. If you want to be on our waiting list, call SEP and let us know about your needs and preferences.

(Lesson Plan Contest from p. 7)

team must find a classroom of students to whom they can teach their lesson, submit dates and times to SEP, practice their presentations, and then actually teach their lesson in front of three judges. After viewing all of the presentations, judges will determine first, second, and third places in each division.

With five third places, two second place pizes, and one first place award in each division, there's plenty of opportunity to recognize talent. There's also plenty of opportunity to add to a nest egg: cash prizes range up to \$1000 for first place. All prizes--16 total--will be divided between team members, their sponsoring teacher, and the science department of their school. All who enter the contest or serve as judges will receive commemorative T-shirts, and all finalists will be recognized at an awards ceremony at Cole Hall. The SEP Lesson Plan Contest is made possible through generous support from the Herbert W. Boyer Fund.

Events Calendar

January 16.....	UCSF Holiday - SEP Closed
January 17	SEP Steering Committee
February 2	Internship Application Deadline
February 17	Lesson Plan Contest Deadline
February 20	UCSF Holiday - SEP Closed
March 20-April 7 ..	Lesson Plan Contest Presentations
March 24.....	UCSF Holiday - SEP Closed