

JEAN PENNYCOOK

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Career Objective: Continue to expand my knowledge and experience in connecting the world of science research to the K-12 community. Develop engaging and dynamic classroom ready curriculum based on data sets and problem solving scenarios using the internet and world wide web as the classroom. Provide teachers with the training to implement engaging content and inquiry based activities in their classrooms. Amplify the discoveries of science by connecting ongoing field research to the larger learning community.

Education

- 2002 MA Education, Science Curriculum and Instruction. California State University, Fresno.
- 1991-09 Course work in Astronomy, Technology, Oceanography, Geology, Biology, Physics, Evolution, Electronics, and Climate Change
- 1975 Teaching Credential, Montana State University, Bozeman.
- 1972 BS University of California, Davis, Major: Wildlife Biology, Minor: Chemistry.

Appointments

- 2010 Einstein Fellowship, National Science Foundation, Collaborate with program officers, policy makers and other stakeholders on education reform and STEM initiatives.
- 2006- Penguin Science Education and Outreach Specialist. (NSF grant) Translate the research of Antarctica to the K-12 community regarding global climate change using penguins as the hook and bellwether. Maintain an interactive website to connect with students around the world; develop and promote instructional materials, and engaging activities for teachers to use in their classrooms.
- 2007-10 Environmental Grant Program Coordinator, Fresno Unified School District. (NSF grant). Provide teacher instruction and leadership in implementing environmental studies curriculum across the content areas in the middle school. Promote the STEM careers and provide exemplar experiences for students both in and outside the classroom.
- 2000- Instructor, Chemistry, Calif State University, Fresno. Upper division Chemistry for Non-majors.
- 2000- Lead Instructor. Summer Science Institutes for elementary and secondary science teachers. Two week intensive content and pedagogical programs infusing science related research materials into their lesson plans.
- 2000-07 Secondary Science Staff Developer, Fresno Unified School District. Develop and conduct teacher workshops and summer institutes to enhance teacher content knowledge in the sciences as well as best practices in the classroom, mentor and support new teachers in the district, develop and implement standards based benchmarks for content assessment in the classrooms.
- 2004-06 Instructor, Geosciences, University of Alaska, Fairbanks. Ends of the Earth Remote Class taught simultaneously to students in Alaska and McMurdo research station, Antarctica. Online class developed to teach about the science of the poles and current research developments in both areas.
- 2003-06 Polar Education Coordinator, Raytheon Polar Services. (NSF technical event) Develop a Polar Intern Program in Antarctica during the austral summer. Provide education opportunities to the community of McMurdo Research Station and develop education outreach opportunities for K-12 classrooms across the nation amplifying the Geosciences research in Antarctica.
- 2002-05 National Field and Pilot Test Coordinator, *Active Chemistry*, an NSF funded inquiry-based curriculum. Managed 80+ teacher nationwide, coordinated summer workshops and compiled formative and summative data from teachers and students. Results were an inquiry based text book for high school Chemistry students. Innovative activities centered around real world applications dominated this classroom experience for college bound students.
- 1996-01 Instructor, Chemistry, Honors Chemistry. Bullard High School, FUSD.
- 1995-98 Project Excel and Tech Trek, Grant funded summer program for girls. Goals included enhancing science and math education for girls. (3 years)
- 1994-96 Instructor, 8th grade GATE Science, Tenaya Middle School, FUSD.
- 1992-94 Science Teacher, American International School, Florence, Italy.
- 1987-92 Instructor, Biology, Chemistry, Honors Chemistry, Roosevelt High School, Fresno Unified School District (FUSD).

Professional Awards:

- 2010 Einstein Fellowship, Triangle-Coalition
- 2008 Sierra Club, Educator of the Year for Environmental Sciences.
- 2007 California Science Teacher Association, Keynote speaker,
- 2000 California League of High Schools, Educator of the Year, Finalist.
- 2000 Veterans of Foreign Wars, National Citizenship Education Teacher Award.
- 2000 Fresno Public Education Fund, Excellence in Teaching Award Finalist.
- 1999 Recipient, Teacher Experiencing Antarctica (TEA) Program funded through the NSF. Connected polar research to the K-12 community.
- 1996 Recipient, FOSTER Teacher in Space Grant from NASA. AMES Research Station and Stanford Univ. Mission aboard the KUIPER Airborne Observatory.

Leadership Roles:

- Science Department Chair (6 years)
- Principals Advisory Committee (3 years)
- Lead teacher, (2 years)
- Science Olympiad Coach (4 years)
- Odyssey of the Mind Coach (2 years)
- Science Fair Coordinator. Recruit and train judges. (3 years)
- All school science day coordinator. Solicit community participation. (3 years)
- Science Fair Judge (5 years).
- Textbook Adoption Committee (2 years).
- Event Coordinator, Science Olympiad (12 years).
- California Science Teachers Association, Keynote speaker
- Test Writer, Golden State Exam in Chemistry (4 years).
- Textbook Adoption Committee, California Department of Education.
- California Raisin Advisory Board, 7 years
- Team Coach: National Academy for Curriculum Leadership, 3 years
- NSF Grant Reviewer 3 sessions
- NSTA (National Science Teachers Association) presenter, 8 years
- AGU (American Geophysical Union) presenter 2 years
- ACS (American Chemical Society) presenter 1 year