

**UCSB Department of Mathematics
Center for Mathematical Inquiry
Third Annual Summer Workshop, 2007**

**Mathematical Development in Grades 4-8:
Number Sense and Access to Algebra
July 9-13, 16-20: 12:30-4:30 (Two Weeks)
Workshop leaders: Bill Jacob and John Siegfried**

This two-week workshop will develop the big ideas in the Number and Algebra strands of the California Standards in grade 4-8. It will emphasize the role of context and the forms of representation that help students develop number sense and the relationships between proportional reasoning, fractions, variables and equations. The workshop will include close examination of student work (video case studies) and will address the needs of ELL students. Although the focus is on the standards at grades 4-8, high school teachers are welcome since they face many of the same issues each day.

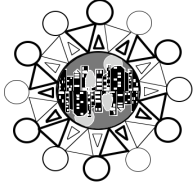
During the workshop participants will work across grade levels to consider the major obstacles students face and how they can be addressed consistently. Participants will also work in grade-bands on approaches relevant to the levels they teach, how to incorporate these approaches into their current instructional program, and will receive Contexts for Learning materials to support these efforts. Four units academic credit will be available through UCSB Extension that can be applied towards supplemental authorization in mathematics. (This is optional). *Participating teachers will receive a \$500 stipend for the 40-hour workshop.*

Academic year follow-up is crucial if the workshop is to impact student achievement, and the UCSB center will coordinate and sponsor a variety of follow-up meetings that extend the ideas developed during the summer. These will provide opportunities for:

- Vertical teaming. This includes examining common forms of representation and strategies students can use across grade levels. This helps provide students a coherent experience as they move through the elementary-junior high-high school transitions.
- Horizontal collaboration. This includes in-depth study of mathematical development (big ideas, representations, strategies) at a grade level and examination of student work using a lesson study model. Teachers can also collaborate trying instructional units that emphasize conceptual development and approaches studied at the workshop.

The workshop will be limited to 24 participants. **It is possible to enroll for either week separately, although priority will be given to two-week participants.** All workshop sessions will be held at UCSB in Trailer 940, Room 1010 and parking passes will be provided to participants. An application is attached. For more information contact Bill Jacob at jacob@math.ucsb.edu. **Applications are due by June 15, 2007.**

This workshop is funded in part by a grant from the Educational Advancement Foundation. All books and materials will be provided by the UCSB grant.



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APPLICATION

Name: _____ School: _____ Grade: _____

Mailing Address: _____

City: _____ Zip Code: _____

Home Telephone: _____

E-mail: _____

If you intend to enroll for one week only, indicate which week here: _____

Mail, Fax or email application to:

Prof. Bill Jacob
Department of Mathematics
University of California, Santa Barbara
Santa Barbara, CA 93106
Fax (805) 893-2385
jacob@math.ucsb.edu

This project is funded by a grant from the Educational Advancement Foundation. For more information email Bill Jacob at jacob@math.ucsb.edu. Space is limited. **Application Deadline: June 15, 2005 by 5pm.** Applicants will receive program information and parking permits prior to the start of the program.