

SUMMER SCIENCE INSTITUTE

Sponsored by **SCIENCE MATTERS** and the *South Coast Science Project at UCSB*

On August 5 – 9, 2013, 38 teachers from around the South Coast will participate in a professional development institute for 4th, 5th, and 6th grade science. Held at Carpinteria Middle School, the workshops will use specially trained “cadres” - University scientists paired with experienced elementary teacher leaders – as trainers. This helps bridge the gap between science experts, accustomed to working in the realm of university-level teaching and research, and classroom teachers who are experts in teaching young children.

The Institute will focus on both science content and pedagogy. Top UCSB scientists will present science concepts; hands-on demonstrations will show teachers how to successfully implement lessons and assessments in their own classrooms. Jo Topps of the K-12 Alliance at WestEd will lead the workshops, which are designed to meet the needs of experienced teachers as well as those who are just beginning to implement science. **In the first of what is planned to be an annual Summer Science Institute,** this summer’s targeted content areas will be Earth Science for Grades 4 and 6 and Physical Science for Grade 5.

With her colleagues Kathy DiRanna and Karen Cerwin of the K-12 Alliance, workshop leader Jo Topps has consulted for over three years with Science Matters Teacher Leaders to develop year-long lesson units based on **“Conceptual Flow”** - a system of presenting lessons that engages students with a coherent story line, builds on their prior knowledge each step of the way, and ensures understanding of academic language for all students (including English Language Learners).

Teachers may receive training in FOSS or the newly-developed Science Matters lesson units – both of which are designed to meet the **Next Generation National Science Standards**. The Science Matters lesson units have been created and field-tested by local teachers in local schools, under the guidance of the K-12 Alliance consultants, and are available at no cost on the Science Matters website (www.sbsciencematters.com). The highly-rated FOSS curriculum, developed at UC Berkeley, is being implemented by a number of local schools.

Workshop participants are treated to a catered breakfast and lunch each day, and will receive, in addition to a stipend for the week, science supplies and materials needed to implement lessons in the coming year. Perhaps even more valuable – **teachers will have an opportunity to make connections with their professional colleagues, and with some of the top local scientists and science educators.**

All the community partners who came together in 2006 to begin Phase I of Science Matters with a CaMSP grant, and have persistently worked toward the common goal of implementing high-quality science in all our elementary schools through professional development and support for teachers, **are proud that these years of effort have resulted in a community-wide “buy-in” for science.** The original partners were: Paul Cordeiro (Superintendent, Carpinteria Unified School District), Dr. Petra Van Koppen (UCSB Chemistry), the Santa Barbara School Districts, the Santa Barbara Museum of Natural History, UCSB Gevirtz Graduate School of Education, Janet Sands (The RORD Foundation), Wharton Foundation, and WestEd/PASS. Paul Cordeiro and Janet Sands continued to lead Phase II of Science Matters in 2010-13, raising funds for the development of high-quality curriculum units that can be freely shared with all interested schools and teachers.

Dr. Petra Van Koppen proposed the idea of sustaining professional development through UCSB using funding from CenSURF (NSF) and the South Coast Science Project, combined with support from local foundations who have supported Science Matters. **This year’s Summer Science Institute has been made possible** through the generosity of the Elizabeth Bixby Janeway Foundation, the Santa Barbara Foundation, the RORD Foundation, the Wood-Claeyssens Foundation, and The Mosher Trust.

For information about this and future Summer Science Institutes, contact Program Director Dr. Petra Van Koppen (petra@chem.ucsb.edu) or Program Administrator Lilly Garcia (lgarcia@education.ucsb.edu). Community funders interested in supporting science in our elementary schools should contact Janet Sands (JanetDSands@gmail.com) or Paul Cordeiro (pcordeiro@cusd.net).