

SCIENCE AND TECHNOLOGY CONFERENCE 2004

8 am – 3:30 pm Saturday, November 20, 2004

Chapman University Science Center
Orange, California

- Focus on **Inquiry- Assessment - Content Standards**
- Workshops Aligned to the State Standards
- Hands-on Activities
- Classroom Materials
- Keynote Speaker
- Exhibitors of the Latest Science Supplies & Textbooks
- Lunch & Hospitality
- Door Prizes
- Free OCSEA Membership with Conference Registration

This one-day conference will emphasize Inquiry- Assessment - Content Standards. Workshops will cover Life Science, Earth Science, Physical Science, and Inquiry Methods. You will receive information and instructional materials that you can use effectively in your classroom today.

Please check the OCSEA website for conference updates

www.ocscience.org

Cost: \$35.00 General Registration (\$20.00 Student Teachers / Students)

Sponsored by the Orange County Science Education Association and the California Science Teachers Association

Program Summary

| Time | Activity |
|---------------|--|
| 7:30 – 8:30 | Registration Continental Breakfast |
| 8:30 – 9:30 | Workshop Session I (Choose from 7 Workshops) |
| 9:30 – 10:30 | Workshop Session II (Choose from 7 Workshops) |
| 10:30 – 10:45 | Break |
| 10:45 – 11:45 | Plenary Irvine Lecture Hall |
| Noon – 1:00 | Lunch Argyros Forum |

| | |
|-------------|---|
| 1:00 – 2:00 | Workshop Session III (Choose from 7 Workshops) |
| 2:00 – 3:00 | Workshop Session IV (Choose from 7 Workshops) |
| 3:00 – 3:30 | Wrap-up / Awards / Drawing Irvine Lecture Hall |

All activities will take place at the Hashinger Science Center unless indicated otherwise.

Workshop Sessions

| Workshop Slot | Theme |
|---------------|------------|
| 1 | Grades K-3 |
| 2 | Grades K-3 |
| 3 | Grades 4-5 |
| 4 | Grades 4-5 |
| 5 | Grades 6-8 |
| 6 | Grades 6-8 |
| 7 | Pedagogy |

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[Click Here to Register](#)

[Program Summary](#)

| Time | Activity |
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| | |
|---------------|---|
| 7:30 – 8:30 | Registration Continental Breakfast |
| 8:30 – 9:25 | Workshop Session I |
| 9:35 – 10:30 | Workshop Session II |
| 10:40 – 11:40 | Plenary Irvine Lecture Hall |
| 12:00 – 12:50 | Lunch Argyros Forum |
| 1:00 – 1:55 | Workshop Session III |
| 2:05 – 3:00 | Workshop Session IV |
| 3:15 – 3:30 | Wrap-up / Awards / Drawing Irvine Lecture Hall |

8:30 AM-9:25 AM

“Project PRISM: Promoting Research in Science and Math” Irvine Lecture Hall

Kim Lindley

Capistrano Unified S.D.

Target Grade Level: 4-5th

Project PRISM is a unique professional development program designed to promote the use of inquiry-based teaching strategies while strengthening content knowledge in math, science, and technology.

CA Standards: Grades 4 & 5 Science Standards (Inquiry)

“Brain Compatible Learning” SC 109

Helen de la Maza
Orange County Department of Education

Target Grade Level: All

Participate in this interactive session to learn about the biology of learning, including aspects such as attention, comprehension, and memory. You can implement the strategies immediately.

CA Standards: N/A

“Rock On!” **SC 111**

(also 9:35 – 10:30)

Susan Pritchard
CSTA/La Habra City Schools

Target Grade Level: 2nd

Some tech ideas, easy lab ideas, and MI ideas to help you make science ROCK for your 2nd grade students.

CA Standards: Grade 2: Earth Science

“Inflatable Whale” **SC 127**

Sandra Kaszynski

Target Grade Level: K-3

Bring the enormity of whales to life by reading inside one!

CA Standards: Kinder 2.1,2.3 Grade One 2.1 -2.4; Grade Two 2.1-2.3 ; Grade Three 3.1

“Vermicomposting” **SC 306**

(also 9:35 – 10:30)

Nona Reimer
Capistrano Unified S.D. & CSUF

Target Grade Level: K-5

Discuss lifecycle of worms, the role of decomposers to the health of the ecosystem, and the benefits of composting at home and school as a means to defer waste from landfills and enhance

our gardens.

CA Standards: Numerous life science standards at most elem levels

“Water Quality Monitoring” SC 319

Janet Yamaguchi

Discovery Science Center

Target Grade Level: 6-8 grades

During this standards-based workshop, participants will learn integrated science concepts such as the chemical components of water and water conservation.

CA Standards: N/A

“Minerals In Our Lives” SC 327

Maureen Angle

McFadden Int, SAUSD

Target Grade Level: 6th and 8th

Teachers will participate in hands-on activities related to properties and use of minerals.

CA Standards: 6th - 6b,c ; 8th - 3b,f, 7c

9:35 AM-10:30 AM

“ScienceWorks CUES - Everything You'll Need for 4th & 5th Grade Science”

Irvine Lecture Hall

Lauren Vu-Tran

ScienceWorks

Target Grade Level: 4th & 5th Grade

This Workshop is designed for educators who are seeking ideas, materials, lessons, science games, songs and review units to meet ALL of the 4th & 5th grade science standards.

CA Standards: All of 4th & 5th Grade Science Standards

“Vermicomposting” SC 306

(2 sessions)

Nona Reimer

Capistrano Unified S.D. & CSUF

Target Grade Level: K-5

Discuss lifecycle of worms, the role of decomposers to the health of the ecosystem, and the benefits of composting at home and school as a means to defer waste from landfills and enhance our gardens.

CA Standards: Numerous life science standards at most elem levels

“Rock On! (Ok, so it is not original, come anyway!)” **SC 111**

Susan Pritchard

CSTA/La Habra City Schools

Target Grade Level: 2nd

Some tech ideas, easy lab ideas, and MI ideas to help you make science ROCK for your 2nd grade students.

CA Standards: Grade 2: Earth Science

“Turn on the Heat” **SC 109**

Cynthia Rounds

Fisler School

Target Grade Level: 6th

Help your students better understand the mystery of heat. Conduction, convection and radiation will be addressed with the integration of hands-on inquiries and technology.

CA Standards: Earth Science 3 and 4

“Meet Science Standards” **SC 127**

Marcia Sprang

Placentia-Yorba Linda USD

Target Grade Level: 6th-8th

IMMEX software, an interactive online resource, has problem sets aligned to the state science standards. Learn how you can use this powerful resource in your classroom to enhance science learning and reasoning for your students.

CA Standards: grades 6, 7 and 8 standards

“Bioinformatics in Middle and High School Science”

SC 50

Alan Van Divort

Cal State Long Beach

Target Grade Level: 6th-12th

Teachers can use web-based resources to create lessons that use current and exciting content that engage students. Using the techniques presented in this workshop, teachers can bring the technology and scientific discoveries of the human genome project into their classrooms.

CA Standards: MS: (Grade 7) 2. Cell Biology (e) 3. Evolution (a) 7. Inv. & Exp. (a)

10:40 AM – 11:40 AM

Plenary Session - Irvine Lecture Hall

"Mapping the World in 3-D"

Dr. Michael Kobrick, Project Scientist, Jet Propulsion Laboratory

Remember when the world was flat? Not any more.

In February, 2000 NASA sent six astronauts aboard the Space Shuttle Endeavour on an 11-day mission, the first human space flight of the 21st century, to gather data for the first complete three-dimensional global map of our planet. The 12 terabytes of data they collected (a bit more information than is contained in the U.S. Library of Congress) will revolutionize our knowledge of the Earth, and have applications in fields as disparate as geologic mapping and petroleum exploration, flight training and navigation, citing cell phone transmitters, water drainage modeling and disaster planning.

This talk will tell you how a single good idea can turn into a Shuttle mission, how to make holograms of the Earth from space, some oddities about the true shape of our planet, and a preview of the completed data set.

Dr. Michael Kobrick is the Project Scientist for the Shuttle Radar Topography Mission at

Caltech's Jet Propulsion Laboratory. He holds a doctoral degree from UCLA in Planetary and Space Physics, and, for 31 years at JPL, has specialized in radar remote sensing of the Earth and planets.

12:00 Noon – 1:00 PM

-
Lunch

Argyros Forum 209

1:00 PM-1:55 PM

“Science Fairs Simplified”

SC 109

Judy Fusco

Villa Park High School

Target Grade Level: 6-8th

Learn how to conduct a successful science fair at your school. Review important forms, photos, and helpful websites.

CA Standards: N/A

“Color It On the Periodic Table”

SC 111

Sandra Kaszynski

Target Grade Level: 5th

5th grade teachers who have no experience with the the Periodic Table of Elements can learn the essentials.

CA Standards: 5th grade physical science 1b and 1d

“Science Connections to Open Court ”

SC 127

JoAnn Kanshige

Fries Avenue Elementary

Target Grade Level: 4th

With time constraints, how can teacher fit science into the program?
Fit science standards and Open Court in one day.

CA Standards: physical, life, earth standards

“Hands-on (Archimedes Principle)” SC 303

George Westrom

Future Scientists and Engineers of America (FSEA)

Target Grade Level: 4 - 8th

There will be a brief overview of the FSEA hands-on program with over 50 projects. There will be a hands-on project, where each participant will build and test a boat to float 5 gram glass marbles.

CA Standards: 4th grade 6a,6b,6c 5th grade 5a,c & all discovery

“Mouse Paint” SC 319

Janet Yamaguchi

Discovery Science Center

Target Grade Level: K-2nd

Interactive lessons on color recognition, color mixing, and color separation. The storybook, Mouse Paint, is incorporated into the lessons.

CA Standards: Kindergarten, PS 1A; LS2B; I&E4A,B; 1st Grade, LS2B,C; I&E4A,B,C; 2nd Grade, LS2C,D; I&E4A,C,D,E

“Models and the Earth, Moon and Stars” SC 327

Maureen Angle

McFadden Int, SAUSD

Target Grade Level: 8th

Teachers will investigate the use of models in the study of the structure and composition of the universe.

CA Standards: 8th 4e

2:05 PM-3:00 PM

“You're a Ribosome! : A Hands-On Activity”

SC 109

Ralph Varela
Fedde Middle School

Target Grade Level: 7th grade life science

This hands-on activity is one that I developed when I was a high school Biology teacher. This activity allows students to construct their own "protein" out of different colored "amino acid" beads. Students learn about codons, mRNA, tRNA, ribosomes, and the effects that DNA mutations have on subsequent protein synthesis.

CA Standards: 7th grade Life Science 1

“Magic Science”

SC 111

Linda Galloway
Kaiser Elementary

Target Grade Level: K-3rd, but all invited

GRAB--and keep-your students' attention through science-based "magic." Lessons are easy, engaging, and most of all, FUN!

CA Standards: N/A

“Project WET Activity - "Capture, Store and Release””

SC 127

Pam Brigandi
Municipal Water District of OC & Discovery Science Center

Target Grade Level: 4th-5th

This activity helps students understand how soils in wetlands absorb water. Students learn to appreciate the importance of wetlands in watersheds and to understand the issues of urban runoff and pollution.

CA Standards: Life Sciences 3 c & d Investigation and Experimentation 5 c, d & e

“Shining Light on the Subject!” SC 303

Laura Henriques
CSU Long Beach

Target Grade Level: 3rd

Link science and literacy strategies in this session as you become enLIGHTened about light!

CA Standards: Gr. 3 physical science 2: Light has a source and travels in a direction.

“New 5th grade Physical Science Unit”

SC 306

Maureen Allen
OCDE

Target Grade Level: 5th

Correlated to Harcourt and Houghton Mifflin texts

CA Standards: 5th grade physical science

“Properties of Water”

SC 327

Robert Ferazzi
Dr. Ken Janda's Research Group

Target Grade Level: 8th

Phase changes of water will be described. A special group of compounds called clathrate hydrates will be discussed. The workshop will contain two hands on experiments that can be carried out in the classroom.

CA Standards: 3. Structure of Matter (Eighth Grade) Parts C and D.

3:15 PM – 3:30 PM

Wrap-up and Drawing Irvine Lecture Hall

Turn in your completed evaluation form.

Receive your certificate for Professional Growth Hours

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