

SCIENCE AND TECHNOLOGY CONFERENCE 2002

8 am – 3:30 pm Saturday, November 16, 2002

Chapman University Science Center
Orange, California

- Focus on Earth Science
- 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 Earth Science concepts for grades 3-8. Other workshops will cross traditional disciplines of chemistry, physics, biology, environmental science, and pedagogy. You will receive information and instructional materials that you can use effectively in your classroom today.

Exhibitors

Carolina Biological
Em Cal Scientific
Foss-Delta Education
Glencoe / McGraw Hill
Nasco
Ocean Institute
Planetary Science Institute
Southland Instruments
Wonders of Wildlife

Please visit our exhibitors between 8 am and 1 pm

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

Program Registration / Continental Breakfast
8:00 – 8:30 AM / Hashinger Science Center

Workshop Session A – Choose from Seven Workshops
8:30 – 9:25 AM / Hashinger Science Center

Plenary Session
9:30 – 10:30 AM / Irvine Lecture Hall

“Beaks, the ‘Beagle’ and Misconceptions about Evolution”

Dr. William F. McComas, Associate Professor of Science Education, University

of Southern California

Evolution is the most important concept in modern biology, but is also one of the most misunderstood. This illustrated discussion will examine a number of common misconceptions regarding evolution by natural selection including the nature of evolution itself, the role of the Galapagos Islands in the discovery, the impact of the finches on Darwin's thinking, and the interplay of religion and evolution in modern society.

William McComas specializes in the teacher education and curriculum issues associated with the discipline of science education. His research interests and publications center on the elements of effective laboratory and investigative instruction, the relationship between the history/philosophy of science and science instruction, models for the assessment of science learning, and informal science learning in museums and field settings. He is the founding director of the Center to Advance Science Education (CASE) and heads the new M.S.Ed. program in science education. He serves on the committee designing the curriculum for the proposed museum elementary school to be built in cooperation with USC, the Los Angeles Unified School District and the California Science Center. His most recent book is titled "The Nature of Science in Science Education: Rationales and Strategies," published by Kluwer Academic Publishers (1998).

Workshop Session B – Choose from Six Workshops

10:30 – 11:30 AM / Hashinger Science Center

Vendors

8:00 AM – 1:00 PM

Lunch

12:00 – 1:00 PM / Argyros Forum

Workshop Session C – Choose from Seven Workshops

1:00 – 1:55 PM / Hashinger Science Center

Workshop Session D – Choose from Five Workshops
2:00 – 2:55 PM / Hashinger Science Center

Raffle and Closing Ceremony
3:00 – 3:30 PM – Irvine Lecture Hall

OCSEA Workshop Program

8:30 - 9:25 AM / SC-039

Maureen Angle, Science Teacher, McFadden Intermediate School, SAUSD

How Plate Tectonics Have Affected the Coast of Southern California; "Life is a Beach - Evolution of the Life and Land of the Southern California Coast (4 to 12)

Participants attending this workshop will be engaged in standards-based Earth Science activities which facilitate students' understanding of geological processes affecting the Southern California coast. The lessons/activities are appropriate for upper elementary and secondary students. ... Handouts: Provided

8:30 - 9:25 AM / SC-109

Cory Wisnia, Science Teacher / Consultant, Ray Wiltsey Middle School

Our View From Earth: Hands-on Conceptual Astronomy Activities for 5th and 8th Grade (5 & 8)

This workshop highlights a series of useful and interesting activities which bring Astronomy concepts and CA content standards to life. Participants will build Moon Phase models, Star Clocks and Constellation Carousels, and will experience interactive activities which help students and themselves learn more about the night sky. ... Handouts: Provided

8:30 - 9:25 AM / SC-111

Nona Reimer, Elementary Teacher, John Malcom Elementary School

Waste Prevention and Recycling Resources for Grades K-6 (K to 6)

Receive a copy of "Closing the Loop" curriculum and "Kids Talking Trash" video. The curriculum contains numerous activities directed at helping students discover and nurture an environmental ethic and stewardship. Aligned to the State Standards for K-6 classrooms. ... Handouts: Provided

8:30 - 9:25 AM / SC-203

Mary Jane Dunn, Outreach Coordinator, Discovery Science Center

Secrets of the Lead Coffins (5 to 12)

Multimedia presentation based on a true-life investigation of the excavation of three 17th century lead coffins. Slides from the actual excavation along with models of human bones introduce students to the field of anthropology. ... Handouts: Provided

8:30 - 9:25 AM / SC-306

Nancy Bleuer, Science Teacher, Revere School
Kathleen Dang, Science Teacher, Barton Elementary
Jannita Zinter, Science Teacher, Barton Elementary

A Virtual Exploration of the Galapagos Islands (4 to 6)

This presentation demonstrates how to create a multimedia project using PowerPoint as a guide. This project was created during the Galapagos Expedition and based on grade level science standards. ... Handouts: Provided

8:30 - 9:25 AM / SC-319

Tish Daly, Pamela Brigandi, Education Representatives, Municipal Water District of Orange County

Water Quality: The Qualities and Science of Water (6 to 12)

Hands-on inquiry based approach to water quality issues faced by the water industry and society. Students construct investigations and experiments to examine their theories and hypotheses ... Handouts: Provided

8:30 - 9:25 AM / SC-327

Lisa Babilonia, Paleontologist, Clark Regional Park

Interpreting a One Million Year Fossil Record in Orange County (K to 8)

This workshop will provide background information on the geology and paleontology of Orange County during the last one million years. Teachers will receive a handout containing a visual guide to local fossils and tips on assembling a fossil collecting "field kit". ... Handouts: Provided

10:30 - 11:30 AM / SC-109

Kathy Iverson, Jim Pacelli, Science Teachers, Westminster High School

Physics Day @ Knott's - Physics of Amusement Rides (7 to 12)

Knott's Annual Physics Day will be held on Feb. 19, 2003. Students will be allowed to take scientific equipment on the thrill rides to take measurements of acceleration, distances and velocities. Participants will receive instructions for making materials to use on that day. ... Handouts: Provided

10:30 - 11:30 AM / SC-111

Nona Reimer, Elementary Teacher, John Malcom Elementary School

JASON XIV - From Shore to Sea: An Expedition to the Channel Islands Marine Sanctuary (4 to 9)

Learn about Dr. Bob Ballard's and the National Geographic Society's exciting new JASON Expedition for the 2002-2003 academic year. Learn about the curriculum and

interactive website for students and teachers that covers the exploration of terrestrial and marine ecosystems off the California coast. Experience some of the hands-on lessons you can do with your class prior to, during, or following the live broadcasts from the islands during January and February, 2003. ... Handouts: Provided

10:30 - 11:30 AM / SC-203

Neil Campbell, Volunteer, Special Projects, Discovery Science Center and Boeing Corp., retired,

The Search for Life in the Universe - A 3-D Multimedia Presentation (4 to 12)

This presentation is available for free in OC classrooms. Is there life in our solar system and beyond? Learn about recent discoveries and future space exploration missions in this 3-D multimedia presentation. 3-D glasses provided. See www.discoverycube.org. ... Handouts: Provided

10:30 - 11:30 AM / SC-303

George Sherman, Physics Professor, Fullerton College

Weather and the Behavior of Air (2 to 8)

Learn the fundamentals that govern the behavior of the Earth's atmosphere. Teachers will come away from this presentation with the basics they need to teach their students about our weather. ... Handouts: Provided

10:30 - 11:30 AM / SC-319

Tish Daly, Pamela Brigandi, Education Representatives, Municipal Water District of Orange County

Story of Water Aquifers in Orange County / Southern California (6 to 12)

This presentation is a walk through the water industry from the global perspective, to California State, Santa Ana River watershed, down to Orange County, ending with future

water issues that will impact us all. ... Handouts: Provided

10:30 - 11:30 AM / SC-327

Spencer Campbell, Program Support Specialist, Inside the Outdoors

Rockin' Geology - Rocks and Rock Cycle (4 to 5)

Students learn about different kinds of rocks and their formation through interactive hands-on lab stations that let them touch and experiment with a variety of rocks and minerals. ... Handouts: Provided

1:00 - 1:55 PM / SC-109

Alan Colburn, Associate Professor of Science Education, California State University at Long Beach

Building Classroom Web Pages with Free Software (K to 12)

I will show you how to create simple, free web pages for use in your classes that you can have up and running this weekend! Web page template included. ... Handouts: Provided

1:00 - 1:55 PM / SC-111

Laura Henriques, Associate Professor of Science Education, California State University at Long Beach

Linking Science & Language Arts (K to 6)

This session will showcase several books and related activities that can be used to link science teaching to the language arts curriculum. Participants will get pairings of children's books and science units, sample assignments and take-home activities. ... Handouts: Provided

1:00 - 1:55 PM / SC-127

Maureen Allen, Program Specialist, Math and Science, Orange County Department of Education

Bob Kelly, Middle School Teacher, Newport Mesa School District

Make & Take Activities for Earth Science (1 to 8)

Sample from a variety of classroom activities in Earth Science (repeated at 2:00 PM) ...
Handouts: Provided

1:00 - 1:55 PM / SC-203

Linda Wyant, Science Teacher, Kaiser Elementary School

Use Your Brain! (K to 12)

Did you know that the brain thinks five times better in color, or that a picture truly is worth more than a thousand words? Are girls' brains really more efficient than boys'? Learn brain-friendly, kid-friendly, and teacher-friendly techniques you can immediately do with your students to promote learning and FUN! And learn an easy magic trick to wow your kids while you have Brain Jell-O for Dessert! ... Handouts: Provided

1:00 - 1:55 PM / SC-319

Jon Lewengrub, Marine Life Refuge Project Manager, Ocean Institute

Cheri Schonfeld, Marine Life Refuge Community Watch Volunteer Coordinator, Ocean Institute

Intertidal Monitoring in Orange County Marine Life Refuges (6 to 8)

Why is there a need for studying the tidepools of Orange County? The animals and plants that live between the tides are being loved to death. Not only do they have to deal with nature's ferocity but they also have to deal with Human Impact. Whether it is collection, trampling or moving them around, it is important to know if we are truly having an impact on these organisms that live in the tidepools. This workshop will introduce teachers to the art of intertidal monitoring techniques. ... Handouts: Provided

1:00 - 1:55 PM / SC-327

Christie Cosand, Rayleen Williams, Science Teachers, Imperial Middle School

Rocks and Minerals Mania (2, 6 - 8)

Suggested activities for students to identify rocks and minerals, and resources for teachers. ... Handouts: Provided

1:00 - 2:55 PM / SC-039

Sue Hayden, Science Teacher, El Camino Real High School

Mapping Local Geology - Double Workshop (6 to 8)

Learn about the geological forces (faults, oil fields, rivers, and landslides) which affect Orange County. This is a double session with time for you to make and take a large map. ... Handouts: Provided

2:00 - 2:55 PM / SC-109

Ranjit Mayadas, Educational Specialist, O.C. Department of Education

Elementary Science Olympiad (4 to 6)

The Elementary Science Olympiad provides the elementary student a less restrictive environment for learning where individual leadership, cooperation and peer support are incorporated as motivators. The program promotes learning through hands-on, minds-on constructivist activities; cooperative learning through events which require teamwork, and making applications and connections to the real world. ... Handouts: Provided

2:00 - 2:55 PM / SC-111

Lori Musick, Ed. Tech. Coordinator, KOCE

Free Videos for your Classroom (Science and More!) (K to 8)

Come view clips of the CTAP-licensed instructional videos for K-12. California licenses over 60 series (800+ programs) for K-12 that cover every subject area. California educators can record, retain, and duplicate them FOR FREE. Every attendee will be given a booklet with information about the programs and whom to contact to obtain the programs or the low-cost teacher guides. ... Handouts: Provided

2:00 - 2:55 PM / SC-127

Maureen Allen, Program Specialist, Math and Science, Orange County Department of Education

Bob Kelly, Middle School Teacher, Newport Mesa School District

Make & Take Activities for Earth Science (1 to 8)

Sample from a variety of classroom activities in Earth Science (repeat of 1:00 PM session) ... Handouts: Provided

2:00 - 2:55 PM / SC-203

Helen de la Maza, Project Assistant, Inside the Outdoors

"Exploring the Environment" (2 to 6)

Participate in environmental science activities and receive lesson plans that can be adapted for use inside the classroom Handouts: Provided

2:00 - 2:55 PM / SC-303

Susan Martin, Beckman@Science

Beckman Landforms Kit (6 to 8)

The landforms module consists of five investigations that introduce students to fundamental concepts in earth science: change takes place when things interact; all things change over time; patterns of interactions and change are useful in explaining landforms. Students also learn tools and techniques cartographers use and use them to

depict landforms. ... Handouts: Provided

Visit the OCSEA web site for future programs and links to science education resources.

www.chapman.edu/ocsea