

**Council of Math/Science Educators
of San Mateo County (CMSESMC)**

presents the 36th Annual

Spring STEM

Conference

Registration Brochure

Saturday, March 3, 2012

San Mateo County
Office of Education

101 Twin Dolphin Drive
Redwood Shores



Register online at
www.cmse-smc.org

Sponsored by
Council of Math/Science Educators of San Mateo County (CMSESMC)
San Mateo County Office of Education

Conference Information

Dear Mathematics and Science Educators,

On behalf of CMSESMC, we invite you to join us at our 36th Annual Spring Conference. The conference provides many sessions that foster excellence in math and science curricula, educational programs, and promotes professional excellence in teaching and strengthening leadership in these fields.

ABOUT CMSESMC

CMSESMC is the acronym (and a palindrome) for the Council of Math/Science Educators of San Mateo County. This professional grass-roots organization of educators and others interested in science and math education, pre-K through college, represents both public and private institutions within San Mateo County and the greater Bay Area. Its active members meet on a monthly, after school basis, to plan and provide appropriate activities and events that support teachers of math and/or science. CMSESMC is supported by the San Mateo County Office of Education and is affiliated with the CA Science Teachers Association (CSTA) and the California Mathematics Council Northern Section (CMC-N).

REGISTRATION

When you arrive, please come to the Registration Area, located inside the front door. You may register for the Conference on-site, or if you are pre-registered, you may pick up your Conference materials there. Your Conference name tag will serve as your brunch "ticket" so be sure to wear it during the event.

If you are a presenter or exhibitor, please check in to let us know you have arrived, and to receive your materials, plus room assignment or exhibit location.

Questions? Please contact Janet Shi at jshi@smcoe.k12.ca.us or by calling (650) 802-5355.

PARKING

Available in the lot surrounding the building.

ACCESSIBILITY

Please inform us via your registration form, or at the Conference Registration Area, if you need any special assistance.

PARTICIPANTS RECEIVE

As a Conference participant, you automatically become a one-year member of CMSESMC through which you can receive, via e-mail, the periodic newsletter and invitations to attend any CMSESMC-related meetings, activities, and events. If you are interested in becoming more involved with CMSESMC, please contact someone at the Conference Registration Area or e-mail April Cherrington acherrington@smcoe.k12.ca.us. We are always seeking active members with exciting ideas!

COLLEGE CREDIT OR PROFESSIONAL HOURS

One CEU (College Extension Unit) is available from St. Mary's College for \$25. A letter verifying and crediting

six professional hours is free and may be picked up in the Registration Area.

FOOD SERVICE

Coffee served from 7:45 a.m. and a brunch at 10:45 a.m. are included in your pre-registration fee. A limited number of brunches may be available for purchase by on-site registrants (inquire when you register).

EXHIBITS

The exhibits will be open from 9:00 a.m. to 1:00 p.m. so we encourage participants to visit this area during the break. Exhibitors will be allowed to sell any of their products.

DOOR PRIZES

A ticket for door prizes is included in your registration packet. Be sure to fill it out and drop it into the special box in order to win one of many prizes generously donated by our exhibitors. Winning tickets will be posted at each exhibitor's table by noon so be sure to visit as many exhibitors as you can, to see if you won!

DIRECTIONS

San Mateo County Office of Education
101 Twin Dolphin Drive
Redwood Shores, CA 95065

From 101

- Take the Ralston Ave/Belmont off ramp
- Take the Marine Parkway exit
- On Marine Parkway, go to Twin Dolphin Drive
- Turn right onto Twin Dolphin Drive
- On Twin Dolphin Drive, go to Lagoon Drive, which will be the first stop light
- Turn left onto Lagoon Drive
- The SMCOE building is on the corner Twin Dolphin Drive and Lagoon Drive
- On Lagoon Drive, turn right into the SMCOE parking lot

	Subject	Session	Session Title	Audience
8:30–9:30 AM	Math	A-1	Mathtime = Playtime	Pre-K-2 New Teacher, Special Ed (K-12)
	Math	A-2	Make These Numbers Yours	5-8 New Teacher
	Math	A-3	Pythagorean Theorem Class Activity: Build, Compute, Synthesize, Write	6-12+
	Math/Science	A-4	The Organized Binder: Creating Powerful Learning Communities	3-12+ EL, New Teacher, Special Ed (K-12)
	Science	A-5	Education and Environment Initiative Model Curriculum Teacher Orientation	K-12+ New Teacher
	Science	A-6	Watching Squirrels at Work	3-12+ New Teacher
	Science	A-7	Hands-on Activities Related to Water	3-8 New Teacher
9:45–10:45 AM	Math	B-1	Open Knowledge Building Around Common Core Math Resources	Pre-K-12+ New Teacher, Special Ed (K-12)
	Math	B-2	Fun Ways to Learn Math Facts: Alternatives to Drills	3-5
	Math	B-3	Brain Games!	3-12+ New Teacher
	Math	B-4	Math Games: Hands-On, Minds-On Fun!	3-8 New Teacher
	Science	B-5	Electricity in the Elementary Classroom	K-8
	Science	B-6	Make Litter Collection Into a Science	3-12+ EL, Special Ed (K-12)
	Science	B-7	In Galileo's Footsteps: Astronomy Activities Using Galileo's Observations	3-12+ New Teacher
Brunch 10:45–11:30 AM				
11:30 AM–12:30 PM	Math/Science	C-1	Drop by Drop: Building Literacy and Numeracy Through Pipetting	Pre-K-2 EL, New Teacher, Special Ed (K-12)
	Math	C-2	Mathematical Practice Makes Perfect	3-5 New Teacher
	Math	C-3	Mixing Data Analysis with Algebra	6-12+ New Teacher
	Science	C-4	Amazing Aircraft: Aviation in Your Classroom	K-8
	Science	C-5	Adapted for Survival	Pre-K-5
	Science	C-6	Science Through Gadgets	5-12+ EL, New Teacher, Special Ed (K-12)
	Science	C-7	Essential Concepts and Skills in Science	Pre-K-12+ EL, New Teacher, Special Ed (K-12)

Conference Sessions

Bennett, John — Teacher, Wornick JDS

Brain Games!

In this hands-on session, we will explore several different kinds of logic puzzles and abstract strategy games that will help develop analytical thinking skills. These fun and flexible activities take little to no time prep-time or cost and can be started in a moment's notice. Participants will receive a handout list of resources.

3-12+, New Teacher | B-3 | 9:45 - 10:45 am | \$

Blachman, Nancy — MathDelights, Julia Robinson Math Festival, Nueva Math Circle, Nueva School

Fun Ways to Learn Math Facts: Alternatives to Drills

Foster delight by providing engaging, hands-on activities, games, magic tricks, puzzles, and problems that develop children's basic math skills while engaging them in higher-level thinking.

3-5 | B-2 | 9:45 - 10:45 am | \$

Bledsoe, Harold — Coordinator/Mathematics Specialist, Project SEED

Mathematical Practice Makes Perfect

This session will demonstrate questioning strategies to help students master the Standards for Mathematical Practice, a key component of the Common Core State Standards.

3-5, New Teacher | C-2 | 11:30 am - 12:30 pm

Brett, Catherine — Science Educator, CuriOdyssey @ Coyote Point

Adapted for Survival

Elementary teachers will investigate local animals using skulls, biofacts, and live critters as we inquire how animals are specially adapted to survive in the wild.

Pre-K-5 | C-5 | 11:30 am - 12:30 pm

Co-presenters: Bryan Holmes, Carl Oosterman

Ferris, Jacob — Lab Assistant, Gene Connection / SMCOE, Canada College

Drop by Drop: Building Literacy and Numeracy through Pipetting

Teach your students how to pipette using scientific language and basic math.

Pre-K-2, EL, New Teacher, Special Ed (K-12) | C-1 | 11:30 am - 12:30 pm

Co-presenter: KimMarie Hansen

Goger, Letha Kay — Digital Librarian, OER Commons, Institute for the Study of Knowledge Management in Education

Open Knowledge Building Around Common Core Math Resources

OERCommons.org has built an online Resource Alignment and Evaluation Tool that allows teachers to share the degree of alignment of resources to the Common Core, as well as to indicate other instructional quality indicators on digital resources.

Pre-K-12+, New Teacher, Special Ed (K-12) | B-1 | 9:45 - 10:45 am

Henderson, Elvia R. — Special Ed Instructional Assistant, Orion Elementary

Mathtime = Playtime

Play challenging games that build skills with basic facts, geometric shapes and mathematical patterns. Games involve tossing soft balls, hoops, rolling marbles, dice and fishing poles, some using recycled materials.

Pre-K-2, New Teacher, Special Ed (K-12) | A-1 | 8:30 - 9:30 am | \$

Co-presenter: Paul Henderson

Holmes, Bryan — Science Educator, CuriOdyssey at Coyote Point

Electricity in the Elementary Classroom

Energy, Electromagnetism, Experimental design. These and other topics can be investigated using electricity! Students create electricity, refine their designs, and use data to draw conclusions.

K-8 | B-5 | 9:45 - 10:45 am

Co-presenters: Catherine Brett, Carl Oosterman

Kaufman, Jay — Retired Math Teacher

Make These Numbers Yours

Happy numbers, palindrome numbers and mind reading numbers, and more.

5-8, New Teacher | A-2 | 8:30 - 9:30 am

Kimoto, Glen — Retired Science Teacher

Science Through Gadgets

Fun, fast-paced, hands-on. Learn to make and use old-fashioned toys/gadgets to teach science concepts. Bring a bag to carry your gadgets home.

5-12+, EL, New Teacher, Special Ed (K-12) | C-6 | 11:30 am - 12:30 pm

Co-presenter: Judy Kimoto

Special Membership Offer:

You may choose to take advantage of a \$20.00 new or renewal group rate on the day of the conference. By redeeming the \$5.00 coupon, you would only pay an additional \$15.00 to get a new membership or renewal of your RAFT one-year membership.

**Kruse, Brian — Lead Formal Educator,
Astronomical Society of the Pacific**

In Galileo's Footsteps: Astronomy Activities

Using Galileo's Observations Engage in inquiry-based activities re-creating and examining the observations Galileo used to support the heliocentric model of the solar system.

3-12+, New Teacher | B-7 | 9:45 - 10:45 am | \$

**Murray, Tom — Math Facilitator,
San Mateo-Foster City School District**

Math Games: Hands-On, Minds-On Fun!

Join the fun and play mathematically based skill and strategy games. Logical reasoning, following patterns and applying various strategies are essential components for success.

3-8, New Teacher | B-4 | 9:45 - 10:45 am

Pope, Patti — Math Teacher, Corte Madera School

**Pythagorean Theorem Class Activity:
Build, Compute, Synthesize, Write**

Build a model of an antenna in the center of a flat roof with 8 attaching guy wires. How much total wire is needed?

6-12+ | A-3 | 8:30 - 9:30 am

**Powell, Laura — Coordinator, Bay Area CREEK
Education and Environment Initiative Model
Curriculum Teacher Orientation**

K-12 science/social studies teachers learn about the new state adopted Education and Environment Initiative curriculum that addresses content standards. Free DVD and unit. www.californiaeei.org

K-12+, New Teacher | A-5 | 8:30 - 9:30 am

**Resek, Diane — Professor Emerita of Mathematics,
San Francisco State University**

Mixing Data Analysis with Algebra

To prepare students for statistics courses, they need to be familiar with proportional reasoning and scatter plots. Intriguing examples in these areas will be explored.

6-12+, New Teacher | C-3 | 11:30 am - 12:30 pm

**Rogers, Patricia — Middle school math lecturer, SJSU,
Brownell Middle School/SJSU**

Watching Squirrels at Work

This extended problem provides a model for students to use number operations, permutations and combinations while justifying their solutions, listening and learning from one another.

3-12+, New Teacher | A-6 | 8:30 - 9:30 am

Co-presenter: Dr. Julie Silva-Spitzer

**Schwartz, Gerald — Resource Conservation Specialist/
RecycleWorks Schools Coordinator, County of
San Mateo RecycleWorks Program**

Make Litter Collection into a Science

Whether your class is helping to clean up a watershed, beach, neighborhood, or even the school campus, attend this workshop to discover how to integrate science and math into this project. Additionally, collaborate with fellow teachers to come up with ways in which students can reach out to their community with the message of keeping our environment clean.

3-12+, EL, Special Ed (K-12) | B-6 | 9:45 - 10:45 am

**Stronck, Ph.D., David R. — Professor of Science
Education, California State University, East Bay**

Hands-on Activities Related to Water

Receive free copies of activities from the Curriculum & Activity Guide of Project WET, a national non-profit water education program.

3-12+, EL, New Teacher | A-7 | 8:30 - 9:30 am

**Sutton, Eve — Curriculum Designer,
www.onedaymath.com**

Essential Concepts and Skills in Science

Hands-on activities using Venn diagrams and "missing piece" situations to build foundations for algebra, science, and language arts. Adaptable examples for PreK, K-12, and Adult Basic Skills.

Pre-K-12+, EL, New Teacher, Special Ed (K-12) | C-7 | 11:30 am - 12:30 pm

Weathers, Mitch — Science Teacher, Sequoia HS

**The Organized Binder: Creating Powerful
Learning Communities**

The Organized Binder increases student success by providing structure that include a starting routine, goal setting, review of the previous day's standards, metacognitive written reflection at the end class, and much more.

3-12+, EL, New Teacher, Special Ed (K-12) | A-4 | 8:30 - 9:30 am

Welte, Jon — Hiller Aviation Museum

Amazing Aircraft: Aviation in Your Classroom

Explore the science of flight with simple gliders, airplanes and helicopters. Enter tow in a classroom set of models and take flight with your students!

K-8 | C-4 | 9:45 - 10:45 am

Exhibitors

Astronomical Society of the Pacific
In2Change
Marine Science Institute
Math Science Nucleus
MOUSE Squad Student Tech Leadership

NASCO
PEAK Student Energy Actions
RecycleWorks-County of San Mateo
SMCOE + PLS - Library Links
Wildlife Associates

RAFT \$5.00 Coupon:

Your conference registration packet will include a \$5.00 coupon for RAFT (Resource Area for Teaching) located in the SMCOE. If you are already a member, the coupon can be redeemed for a \$5.00 gift card. If you are not a member you may redeem the coupon for a day pass (which is normally \$15.00). Please go to the membership desk at RAFT while attending the conference to redeem the coupon. New or renewal membership will be \$20 (\$15 with your coupon) at the conference.

SMART Products

Learn how you can use SMART products to spark a lasting interest in your students for science and math. Hosted by In2Change with hands-on activities guided by science and math teachers.

This workshop will guide participants through the use of SMART products including SMART Boards, SMART Response and the SMART Table to excite students and inspire further learning in science and math. Participants will learn how to create their own lessons, how to adapt pre-existing lesson activities, and where to find SMART user groups. Teachers will also have the opportunity to network and share what works in the classroom. This workshop is hands-on, those who fully participate will get the most benefit.

Equipment required: Laptop with the latest version of Notebook software. For more information or software support, please contact Lise Mills at In2Change, lise@in2change or (650) 859-9213.

Please check the box on the registration form so we can plan for lunches for this group.

12:30 – 2:00 p.m.

Visit Hiller Aviation Museum—Free of Charge! Educator Tour and Program

CMSESMC attendees and their families are invited to visit the nearby Hiller Aviation Museum immediately following the conference. Each attendee will receive a VIP pass good for two complimentary admissions to the Museum during the month of March in their conference bag. The Museum will also provide free admission on the afternoon of March 3rd to all teachers wearing a CMSESMC nametag.

The Museum will present a special tour and program onsite at the Hiller Aviation Museum. Participants will see firsthand the Museum's collection of over 40 different aircraft and experience several hands-on program activities, including an exclusive flight simulation session. Join us for an exciting afternoon of aviation-themed STEM adventure!

1:30-3:00 p.m.

Participant Information (one participant per form)

CMSESMC Spring Math & Science Conference —Saturday, March 3, 2012

Advance Registration Deadline: Thursday, February 23.

(PDF Fillable form, please print or type.)

Name _____ Hm Phone _____

Home Address _____ City/Zip _____

Place of Work _____ Wrk Phone _____

Work Address _____ City/Zip _____

E-mail _____ Fax _____

I plan to attend the SMART Products session at 12:30 p.m.

Instructions and Conference Fees

1. Registrations, including onsite, include brunch and a one-year CMSESMC membership.
2. A confirmation will be emailed to you if your registration is received by Thursday, February 23.
3. Register online at **www.cmse-smc.org**
4. A Registration form is required for each individual in the group.
5. For group registrations or those who wish to pay by check or money order, please complete the registration form and send this form (or forms) with payment payable to **CMSESMC** and mail to address below.

Conference Fees	Advance	Onsite	Special Assistance Special Assistance
Registration Fee	<input type="radio"/> \$40	<input type="radio"/> \$45	<input type="radio"/> I need special assistance to move around the campus.
Student Teacher/Intern	<input type="radio"/> \$30	<input type="radio"/> \$35	
Group Rate*	<input type="radio"/> \$30	<input type="radio"/> \$35	*Six or more from the same school or district, paid with one check.
Pre-School Teacher	<input type="radio"/> \$25	<input type="radio"/> \$30	
Additional Memberships	Advance	Onsite	Mail Check or Money Order to:
CMC Membership (Math)	<input type="radio"/> \$50	<input type="radio"/> \$50	<p align="center">c/o San Mateo County Office of Education 101 Twin Dolphin Drive Redwood Shores, CA 94065-1064 Attention: Janet Shi</p>
CSTA Membership (Science)	<input type="radio"/> \$39	<input type="radio"/> \$39	
Total Enclosed:	_____	_____	

Questions? Please contact Janet Shi at (650) 802-5355 or jshi@smcoe.k12.ca.us

DIRECTIONS TO San Mateo County Office of Education

From North Bay

- 101 South
- Exit Ralston Avenue (Exit 412)
- Turn left onto Ralston Avenue (Go East over freeway)
- Ralston Avenue becomes Marine Parkway
- Turn right onto Twin Dolphin Drive
- Take the first left onto Lagoon Drive
- Turn right into SMCOE parking lot

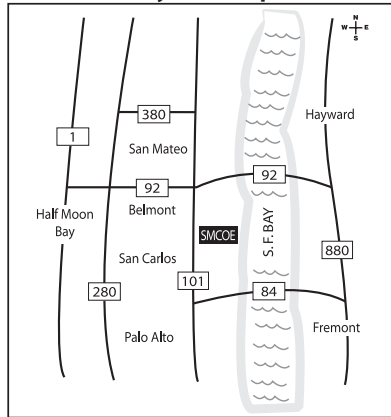
From South Bay

- 101 North
- Exit Holly Street/Redwood Shores Parkway (Exit 411)
- Merge onto Redwood Shores Parkway
- Turn left onto Twin Dolphin Drive
- Turn right onto Lagoon Drive
- Turn right into SMCOE parking lot

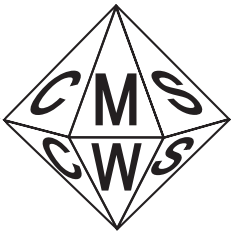
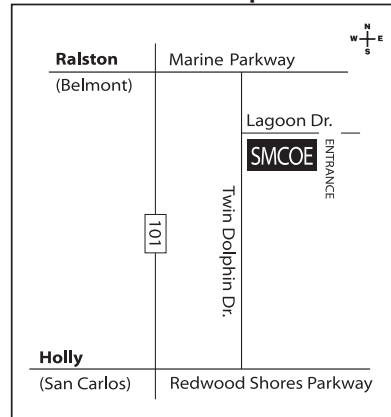
From East Bay

- 92 West (San Mateo Bridge)
- 101 South (Exit 13A)
- Exit Ralston Avenue (Exit 412)
- Turn left onto Ralston Avenue (Go East over freeway)
- Ralston Avenue becomes Marine Parkway
- Turn right onto Twin Dolphin Drive
- Take the first left onto Lagoon Drive
- Turn right into SMCOE parking lot

Bay Area Map



Street Map



2012 Spring Math and Science Conference
 San Mateo County Office of Education
 101 Twin Dolphin Drive
 Redwood Shores, CA 94065-1064
 Attention: Janet Shi

Register online at www.cmsesmc.org