## 



Friday, December 3 - Sunday, December 5, 2010
Asilomar Conference Grounds • Pacific Grove Middle School, Pacific Grove

## Welcome to Asilomar

Take time to explore mathematical ideas and teaching for understanding. Whether you're a first-timer or a veteran of many Asilomar conferences, we hope this brochure will help you find the exciting opportunities that await you at this year's conference!

## A Place to Get New Ideas...

Asilomar is a place to get lots of new lessons and ideas to use in your classroom. Attend sessions led by teachers and educators from all levels, and all over California, the United States, and beyond. Experience hands-on workshops and fun-filled activities you will want to share with your colleagues and students. The Asilomar conference provides nearly 200 sessions in a threeday program that offers a rich variety of experiences to suit every grade level and to cover all strands of mathematics.

## A place to learn what is new in MATHEMATICS EDUCATION...

Come to Asilomar to learn about and discuss the latest mathematics education news, information and issues. We are proud to have an outstanding group of presenters-people at the forefront of change in mathematics instruction. Discover how changes in state and national policy, teaching techniques, materials, texts and assessment will affect your classroom, your students and your teaching.

## A place to network...

Several hundred teachers from all levels attend Asilomar each year. Take this opportunity to enlarge your network of colleagues who can assist you in building your math program. Become part of the CMC network that supports math teachers throughout California. Meet new friends who share your interests and love of teaching.

## A wonderful place to be...

Asilomar is a beautiful State Park. You will encounter many species of wild life as you meander through the grounds or take the boardwalks to the dunes. Join us!

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## A Special Thanks To!

## Conference Coordinator

Gretchen Muller

Registration Julie Crozier

Program Chair
Rebecca Lewis
(INI CONFERENCEAT SILOMAR FRIDAY | 1:30-4:30 PM

| Speaker | Topic | Grade Level | Room |
| :--- | :--- | :--- | :--- | :--- |
| Brutlag, Dan | Getting Algebra into the Adolescent Brain | $6-12$ | Oak Shelter |
| Carroll, Cathy | Developing and Supporting Teachers' Mathematical Knowledge for Teaching | Ldrshp | Surf \& Sand |
| Giganti, Paul | Algebra: Concrete to Abstract-Blocks to Formulas | $6-8$ | Triton |
| Roddick, Cheryl | Fractions, Fair Trades, and Pattern Blocks \| co-presenter: Christina Silvas-Centeno | $3-8$ | Acacia |
| Serra, Michael | Problem Solving Featuring Polya's Problem | $8-12$ | Evergreen |
| Willebrand, Sheri | Common Core Standards for K-2: How Are They Different? | Pk-2 | Toyon |


| 츤 | Time | Event | Location |
| :---: | :---: | :---: | :---: |
|  | 3:00-7:00 PM | Registration | Admin. Building, Asilomar |
|  | 3:00-7:00 PM | Commercial Exhibits | Merrill Hall, Asilomar |
|  | 4:00-6:00 PM | Newcomers' Session | Curlew, Asilomar |
|  | 5:00-7:15 PM | Commercial Exhibits (materials for purchase) | Gym, Pacific Grove MS |
|  | 6:00-7:00 PM | Dinner | Dining Hall, Asilomar |
|  | 7:30-9:00 PM | Keynote Session: (information on page 7) <br> Lucy West — Academic Discourse—It Ain't Just for Kids | Auditorium, Pacific Grove MS |
| $\begin{aligned} & \text { त } \\ & \text { त्र } \\ & \text { N } \\ & \text { N } \end{aligned}$ | 7:00-8:15 AM | Breakfast | Dining Hall, Asilomar |
|  | 7:30 AM-12:00 PM | Registration | Admin. Building, Asilomar |
|  | 7:45-9:00 AM | Newcomers' Session | Curlew, Asilomar |
|  | 8:00 AM-5:30 PM | Commercial Exhibits (materials for purchase) | Gym, Pacific Grove MS |
|  | 8:00 AM-4:00 PM | Commercial Exhibits | Merrill Hall, Asilomar |
|  | 8:00 AM-12:00 PM | Sessions (matrix begins on page 10, speaker section begins on page 14) |  |
|  | 8:00 AM-5:00 PM | Make-lt, Take-It (refer to page 12) | Library, Pacific Grove MS |
|  | 12:00-1:30 PM | Lunch (refer to page 4) | Dining Hall, Asilomar |
|  | 1:30-5:00 PM | Sessions (matrix begins on page 10, speaker section begins on page 14) |  |
|  | 6:00-7:00 PM | Dinner | Dining Hall, Asilomar |
|  | 7:30-10:00 PM | Ignite! and President's Party - Everyone Welcome! | Fred Farr Forum, Asilomar |
| $\begin{aligned} & \text { त } \\ & \text { त् } \\ & \text { C } \\ & \text { n } \end{aligned}$ | 7:30-8:30 AM | Breakfast | Dining Hall, Asilomar |
|  | 8:00-8:45 AM | CMC-N Membership Meeting | Dining Hall, Asilomar |
|  | 9:00-10:15 Ам | Morning Keynote Session: <br> Jo Boaler — The Psychological Prisons from Which They Never Escape? How School Mathematics Shapes Children's Lives | Merrill Hall, Asilomar |
|  | 10:15-10:45 AM | Coffee Break |  |
|  | 10:45 AM-12:00 PM | Mid-Morning Keynote Session: <br> David Schwartz — Putting the "Wonder" Back in Wonderful: Math Happens When Children Wonder About What They Read | Merrill Hall, Asilomar |

## CMC-North would like to express its sincere gratitude to:

The Asilomar Program Committee-for preparing an enriching program with speakers who are experts in their field, a variety of presentations to energize and expand the skills and talents of each mathematics educator, and a feeling of renewed enthusiasm for teaching.

The Speakers—for providing stimulating presentations and sharing new ideas, teaching methods, and tools. We acknowledge the many hours of preparation they have spent to provide you with valuable handouts and with this opportunity for growth and networking.

The Asilomar Committee Chairs and Volunteers-for providing you with the best support to help make your experience at this year's conference go smoothly through their help with equipment, signs, logistics, and more.

The Presiders and Pre-Service Teacher Volunteers-for providing speakers with warm hospitality, a welcoming introduction, and a hearty thank you at the end of each session. Presiders are one of the ones to keeping speakers coming back to Asilomar.

The Exhibitors-for contributing to your conference experience by bringing new curriculum materials, teaching ideas, technology, products, and free demonstrations
 to you and your fellow conference goers.

The Staffs of Pacific Grove Middle School and the Asilomar Conference Grounds-for welcoming conference participants to your sites and for your support in making our conference a great success.

## IcNite!

We're very excited to offer an Ignite session sponsored by Key Curriculum Press. What is Ignite? This fast-paced, fun, thought-provoking, high-energy series of 5-minute talks with 20 self-advancing slides by people with the guts to get onstage and talk about something they are passionate about! Stay for the President's Party afterwards.

## Ignite Presenters:

Jo Boaler, Gloria Brown Brooks, Phil Daro, Tim Erickson, Scott Farrand, Linda Gojak, Steve Leinwand, Dan Meyer, Gretchen Muller and Michael Serra.

Saturday, 7:30-8:30 | Asilomar, Fred Farr Forum

## Lunch Options

There will be food available for purchase at the Middle School! From 8:00 a.m. till about 2:00 p.m., student organizations will be selling various snacks and refreshments. Coffee, sodas and water will be available, as well as sandwiches and pastries.

Please support these local school groups.

## First Time at Asilomar?

Come to the Curlew for a 20-minute orientation session on how to navigate your first conference at Asilomar. We will show you all you need to know. Friday, 4:00-6:00 p.m. and Saturday 7:45-9:00 a.m.

## IN MEMORIUM

## Lyle Fisher \& Beth Schlesinger

On November 13, 2010, CMC lost a great friend. Lyle was a teacher, mentor, and coach to many of us as well as CMC North and State president. Along with Bill Medigovich, he started the Student Activities Trust Fund enabling CMC to promote among our students the love and joy of mathematics he experienced. A condolences card, to be sent to his wife Connee, will be in the main registration area for anyone to sign.

Beth Schlesinger, a retired high school teacher from San Diego, was a long time contributor and member of the ComMuniCator editorial panel. She will be missed by her friends and colleagues.

## T-shirts and Sweatshirts



Displaying this year's Asilomar Mathematics Conference logo will be available for purchase at the Asilomar registration area. Don't miss your opportunity
to bring home a memento of your conference participation.

CMC-North Officers

| esident | er |
| :---: | :---: |
| President Elect | hristine Robles |
| Vice President. | Rebecca Lewis |
| Treasurer | .........Chris Tsuji |
| Secretary | .....Rita Nutsch |

## Conference Volunteers <br> Program Chair <br> Rebecca Lewis <br> Program Committee

Hope Bjerke, Renae Burson, Katy Early, Ana England, Dave Robathan

## Evaluation

Elizabeth Brooking and
Rebecca Hubbell

## Packets

Mark Hailey
Pre-Registration
Julie Crozier
Housing
John Martin
Exhibits
Michael Pease and Daniel Wieman

## NCTM Representative

Stephen Asp
NCTM Sales
Chicha Lynch
Awards
FaraLee Wright
Pre-Service Volunteer
Coordinators
Catherine Reed and Jean Simutis

## Asilomar Presider

Nyla DeLong and Kay Gilliland

## Conference Signs

Julia Stephens
Information Booth
Christine Robles

## Equipment

Alison Nash
Newcomers' Orientation
Kathlan Latimer and
April Goodman-Orcutt
Program Logo and T-shirt Design John Martin

Conference Program
Connie Anderson

## Conference Information

## Sessions

You will find four session types: Presentations, Hands-on Workshops, Interactive and Make-lt, Take-It sessions.

## Presentations (PRS)

Will be speaker-focused, but you may expect discussion, explorations and/or some activity.

## Hands-on Workshops (WkS)

Limited enrollment. Tickets (free) are needed for admission. Workshop tickets save your spot only to the scheduled start time so a person without a ticket will admitted on a space-available basis at the scheduled start of the session.

## Interactive Sessions (INT)

Provide for discussion and exploration. Participants will be involved in activities and interaction with others.

## Make-It, Take-It (MITI)

Make your own models for classroom projects and activities. Please join one of our scheduled sessions. Participation is limited to twenty-five. Advanced registration is not required. Materials fee may be charged.

## Session Capacity/Seating

We have made every attempt to provide adequate seating for participants at the conference. However, to ensure your safety and adhere to fire regulations, the number of participants allowed in each meeting room will be limited to the number of seats approved by the Fire Marshall. Anyone sitting on the floor or standing will be asked to leave the room. Please check the Program Matrix (pages 10-13) for the seating capacity of each room. All seats are available on a first-come, first-served basis.

## First Time at Asilomar?

Come to the Curlew for a 20 minute orientation session on how to navigate your first conference at Asilomar. We will show you all you need to know to get the most out of the experience. Friday 4:00-6:00 p.m. and Saturday 7:45-9:00 a.m.

## Commercial Exhibits

Some speakers have commercial products as an integral part of their presentation. Also see the latest materials and textbooks from other companies.

| Friday | Merrill Hall | 3:00-7:00 p.m. |
| :--- | :--- | :--- |
|  | PGrove MS | 5:00-7:15 p.m. |
| Saturday | Merrill Hall | 8:00 a.m. $-4: 00$ p.m. |
|  | PGrove MS | 8:00 a.m. - 5:30 p.m. |

## Parking

Since parking space is very limited, on-grounds parking is reserved for registrants housed on grounds. Others must park outside the main entrance to Asilomar or at the Middle School.

## Disabled Services

Jitney service and white courtesy phones are available on Asilomar Grounds. Disabled access is available on the Asilomar grounds and at the Middle School.

## College Credit

Course details and registration information are found on page 45.

## Bus Service

Buses run between Asilomar and the Middle School on Friday 3:45 to 9:30 p.m. and all day on Saturday.

## Cell Phones and Pagers

Out of respect for presenters and other participants, please turn off cell phones and pagers during sessions.

## Conference Day Assistance

Look for the attendees with "Ask Me" stickers! They can assist you.

## Program Changes

Although this book contains the latest information available as of the printing deadline, some last-minute changes are inevitable. We apologize for any inconvenience that may result, and we appreciate your understanding.

## Lunch Options

There will be food available for purchase at the Middle School. From 8:00 a.m. till about 2:00 p.m., student organizations will be selling various snacks and refreshments on both campuses. Coffee, sodas and water will be available, as well as sandwiches and pastries. Please support these local school groups.

## Meal Tickets

Participants staying on-grounds receive a meal ticket with their housing, covering Friday dinner through Sunday lunch. For participants staying off-grounds a limited number of meal tickets will be available for purchase at the Asilomar front desk.

## T-shirt and Sweatshirt Sales

T-shirts and sweatshirts displaying this year's Asilomar Mathematics Conference logo will be available for purchase at the Asilomar registration area. Don't miss your opportunity to bring home a memento of your conference participation.

## Walking

It is one mile from Asilomar to Pacific Grove Middle School. A map of this area of Pacific Grove is provided on page 46.

## Help Protect the Vegetation

Please stay on the paved paths that meander through the grounds or the boardwalks that take you on a delightful journey through the dunes. By keeping people off the vegetation, Asilomar is able to preserve the natural landscape for all to enjoy for many years to come. You might see some paths that look walking trails, but if they are not paved, they are simple animal trails created by many hooves walking the same route through the grounds. Thank you very much for your cooperation.

## Dan Brutlag — Math Teacher/Curriculum Developer, Meaningful Math <br> Getting Algebra into the Adolescent Brain

Why does algebra often seem to go in one ear and out the other? Recent brain research has some answers. Come learn about engaging, classroom-tested, easy-to-use techniques for algebra that work for all students. The mathematical focus will be the big ideas of linear relations. Both the "how" and "why" of mental math, problem solving, student presentations, posters, and classroom management/discipline will be discussed.
6-12 | PRS | 4 | Oak Shelter

## Cathy Carroll — Senior Research Assoc/Project Dir, WestEd Developing and Supporting Teachers' Mathematical Knowledge for Teaching

This session examines issues and challenges PD leaders and coaches face in developing learning communities focused on deepening teachers' mathematical knowledge for teaching. Video clips of teachers engaged in doing mathematics provide a concrete "case" to ground examination and discussion of some of the issues involved in supporting teachers' mathematical and pedagogical content knowledge. Participants will consider these ideas in terms of their own work through analyzing a set of teacher work.
Ldrshp | WkS | 14 | Surf \& Sand

## Paul Giganti - Math Festival Director,

## California Mathematics Council

## Algebra: Concrete to Abstract-Blocks to Formulas

Algebra is abstract, but it needn't start that way. In this workshop, we begin with blocks, and by investigating geometry growth patterns, slowly move from hands-on building to visualizing algebraic function generalizations. If you take your students on this tour of functions in algebra moving gradually from concrete to abstract, more students will understand the power of algebra and its connections to real situations.
6-8 | WkS | 15 | Triton

## Cheryl Roddick — Associate Professor, San Jose State Univ Fractions, Fair Trades, and Pattern Blocks

The teaching of fractions is one of the major emphases in grades $3-5$. Students often experience difficulties when fraction concepts and procedures are taught too abstractly and without meaning. In this session teachers will learn how to use pattern blocks to develop a hands-on approach for understanding the concept of fractions. Teachers will also use pattern blocks and pictures, as well as the use of fair trades to determine equivalent fractions and to give meaning to the algorithms for addition, subtraction, multiplication, and division of fractions. Real-life problems will also add a context to the operations.
3-5 | INT | 7 | Acacia | BT
Co-presenter: Christina Silvas-Centeno - Math Curriculum Specialist,
San Jose Unified SD

## Michael Serra - Author/PD Workshop Leader,

Key Curriculum Press

## Problem Solving Featuring Polya's Problem

This mini-course warms up with some of the classics of problem solving. We will explore the classic problems as a whole group, recognizing the importance of thinking "out of the box,"
using models or diagrams, perseverance, and visual thinking.
Participants will work in cooperative groups on new problems from a list and present their solutions. Finally, we'll finish with a famous problem posed by George Polya.
8-12 | INT | 5 | Evergreen | BT

## Sheri Willebrand - President,

California Mathematics Council
Common Core Standards for K-2: How Are They Different?
The common core standards are more coherent and with fewer standards, more focused. How can they inform curriculum and teaching? How can they support children's learning? Follow several learning paths across the primary grades. Experience how the mathematics develops a firm foundation in concepts while building skills and problem solving competencies. Rich activities that build depth and understanding will be highlighted. PK-2 | WkS | 8 | Toyon | BT

## 2010-12 Board Members

## State

President .Sheri Willebrand President-Elect...............................................................
Secretary ...Jeannie Toshima
Treasurer. $\qquad$ ..April Goodman-Orcutt Past President Kathy Woods

## North



## Commercial Exhlbits

Be sure to make time in your schedule to visit the commercial exhibits at the Pacific Grove Middle School Gym and Merrill Hall. You'll find a remarkable collection of mathematics education books, curriculum materials, teaching resources, games, manipulatives, and technology and services. Exhibit hours allow ample opportunity to explore, try out, and purchase product/services for use in your classroom or to help you meet your career goals. You'll also have the opportunity to get fresh ideas, valuable information and resources and to see demonstrations of how products work. Be sure to check the list of exhibits and map of the two exhibit halls on page 37.

## Lucy West, Education Consultant

## Metamorphisis

## Academic Discourse—It Ain't Just for Kids

What is the quality and frequency of academic discourse among the educators at your school or district? How often and in what ways do you inquire into teaching in ways that actually improve instructional practice as evidenced in student learning? To what degree is discourse necessary to foster understanding? What is the connection between the nature and quality of adult discourse in schools and the nature and quality of student discourse in classrooms? What about conflict, disagreement and diversity as related to the capacity to dialogue? How might discourse be built into lesson design? What tools do teachers need to provide students in order to have regular, robust dialogue among students? What types of mathematical tasks engender dialogue? These and related questions will be explored as we consider the role of discourse in teaching and learning. GI|PRS | 53 | BT



## The Psychological Prisons from Which They Never Escape? How School Mathematics Shapes Children's Lives

What is math really? And why do so many children have such a traumatic experience of school math? In this session I will describe the insights I have gained over recent years from conversations with politicians, the public and members of the media, in England and the U.S. I will also report upon a research study that followed children who had learned in different ways into their adult lives-with some interesting results. $\quad$ GI | PRS | 1018


## Putting the"Wonder" Back in Wonderful: Math Happens When Children Wonder About What They Read

David is thrilled when young readers are inspired by his books to raise questions and develop mathematical strategies to answer those questions. Illustrating his talk with impressive student work, the author of 50-plus math and science picture books including How Much Is a Million?, G Is for Googol and If You Hopped Like a Frog will demonstrate how teachers can encourage students to read, wonder, and do the math to address the questions that literature can raise. He'll share results that are instructive, surprising and sometimes hilarious. GI | PRS | 1118

| Saturday Highlighted Sessions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Time | Speaker | Session | Grade Level \| Type | Room |
| $\circ$ <br> 0 <br> $\circ$ <br> 1 <br> $\vdots$ <br> $\circ$ <br> 0 | Cook, Marcy | Mathematics Spoken Here! | 6-8 \| PRS | Fred Farr Forum |
|  | Eisenberg, Gary | Singing, Dancing, and Playing Through K-3 Math | PK-2 \| INT | Heather |
|  | Farrand, Scott | Developing Fraction Sense in Secondary Students | 6-12 \| INT | Kiln |
|  | Fulton, Brad | Losing Your Marbles: Function Fun for Everyone | 3-8 \| PRS | PG Middle Auditorium |
|  | Brown, Ron | Rock Your Math Class! | PK-2 \| PRS | Fred Farr Forum |
|  | Cummins, Jerry | Equity as it is Related to Appropriate Levels of Rigor | GI \| PRS | Heather |
|  | Meyer, Dan | Math Curriculum Makeover | GI \| INT | Kiln |
|  | Leinwand, Steven | Glimpses of Instructional Excellence | GI \| PRS | PG Middle Auditorium |
| $\begin{aligned} & \text { O} \\ & \stackrel{+}{\mathrm{N}} \\ & \stackrel{1}{\circ} \\ & \stackrel{+}{i} \\ & \underset{~}{2} \end{aligned}$ | Foster, David | National Core Standards-WYTIWYG | GI \| INT | Fred Farr Forum |
|  | Novelli, Barbara | Stirring Up Place Value Understanding and Success | 3-5 \| INT | Heather |
|  | Fulton, Brad | Graphic Organizers for Teaching Algebra | 6-8 \| PRS | Kiln |
|  | Daro, Philip | Common Core Standards: What is the Difference? | Gl\| PRS | PG Middle Auditorium |
| $\circ$ <br>  <br> $\dot{m}$ <br> $\vdots$ <br> $\dot{0}$ <br> $\cdots$ | Jacobs, Harold | Mathematical Snapshots of 2010 | GI \| PRS | Fred Farr Forum |
|  | Novelli, Barbara | Mixing Up Math Success for All Learners | PK-2 \| INT | Heather |
|  | Choate, Laura | Effective Games and Practices that Lead to Student Success | PK-2 \| INT | Kiln |
|  | Cook, Marcy | Algebraic Experiences for All | 3-5 \| PRS | PG Middle Auditorium |
| $\circ$$\stackrel{\circ}{i}$$i$$\dot{n}$$m$$m$ | Childs, Leigh | Engaging Activities+Strategies = Numerically Nimble Students | 3-5 \| INT | Fred Farr Forum |
|  | Calahan, Heather | Perspectives on California's New Math Standards | GI \| W | Heather |
|  | Hunter, Kelley | Math Intervention: Ideas That Work! | 6-12 \| PRS | Kiln |
|  | Serra, Michael | Investigations in Geometry for 2010 | 8-12 \| INT | PG Middle Auditorium |

## Call For Speakers

## CMC-North 54th Annual Conference

Asilomar and Pacific Grove Middle School, Pacific Grove
Grow with STEM
(Science, Technology, Engineering \& Mathematics)
December 2-4, 2011

Proposals will be accepted online at www.cmc-math.org from January 30 to April 10, 2011. We welcome new and returning speakers to submit proposals. Speaking at a conference is a great way to share your ideas and expertise with your colleagues.

For further information, please contact: Rebecca Lewis at asilomarprogramchair@cmc-math.org.

## CMC Student Activities Trust

## Tax Deductible Contribution

Remember your year-end tax deductible contribution to the CMC Student Activities Trust Fund. So far we've spent \$185,000 to support student activities throughout California since 1983. All contributions should be mailed to:

Gayle Spencer
CMC Student Activities Trust Fund
3617 Dayton Avenue, Fresno, CA 93726

## Applications

For information on how to apply for these funds to support student activities, visit: www.cmc-math.org/awards, contact your affiliate president, or:

Natalie Mejia
4518 Hummel Drive
Santa Maria, CA 93455

## How To Use The Conference Time Planner

The Conference Time Planner is designed to help you "map out" your sessions so you can enjoy the conference without the frustration of running from place to place, arriving late for a session, or missing one completely. It cannot, of course, help you decide which of the many sessions for your grade level to select in each time slot, nor can it make the very popular sessions less crowded. We hope it will help you enjoy the conference just a little bit more.

Below are some ideas to be aware of as you check your plan for the day:

- If this is your first Asilomar math conference, be sure to drop in at the newcomers' session Friday or Saturday morning.
- The lunch hour is 90-minutes and does not overlap any session.
- Use the chart to plan your conference schedule. Don't forget that tickets are necessary for workshops. They are indicated by $\mathbf{T}$ in the matrix, as well as by a " $W$ " in the presenter alpha list.
- Many ticketed workshops may still have space available. Just go directly to the session and see if there's space remaining. Seats that are still vacant five minutes after the start time may be filled on a first-come basis.
- Don't forget to visit the commercial exhibits in Merrill Hall and at Pacific Grove Middle School, or the Make-lt, Take-lt workshops in the Middle School Library.


## Conference Day and Time Planner

|  | Time | Speaker / Topic | Location |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { तo } \\ & \frac{0}{ㅇ ㅡ ㄴ ~} \\ & \hline \end{aligned}$ | 6:00-7:00 PM | Dinner | Dining Hall, Asilomar |
|  | 7:30-9:00 Рм | Keynote Session: (information on page 7) <br> Lucy West — Academic Discourse—It Ain't Just for Kids | Auditorium, Pacific Grove MS |
| $\begin{aligned} & \text { त } \\ & \text { त } \\ & \text { 흘 } \\ & \text { N } \end{aligned}$ | 7:00-8:15 AM | Breakfast | Dining Hall, Asilomar |
|  | 8:00-9:00 AM | 1st Choice: |  |
|  |  | 2nd Choice: |  |
|  | 9:30-10:30 AM | 1st Choice: |  |
|  |  | 2nd Choice: |  |
|  | 11:00 AM-12:00 PM | 1st Choice: |  |
|  |  | 2nd Choice: |  |
|  | 12:00-1:30 PM | Lunch / Commercial Products |  |
|  | 1:30-3:00 PM | 1st Choice: |  |
|  |  | 2nd Choice: |  |
|  | 3:30-5:00 PM | 1st Choice: |  |
|  |  | 2nd Choice: |  |
|  | 7:30-10:00 PM | Ignite! and President's Party - Everyone Welcome! (refer to page 4 for details) | Fred Farr Forum, Asilomar |
|  | 7:30-8:30 AM | Breakfast | Dining Hall, Asilomar |
|  | 9:00-10:15 Aм | Morning Keynote Session: <br> Jo Boaler — The Psychological Prisons from Which They Never Escape? <br> How School Mathematics Shapes Children's Lives | Merrill Hall, Asilomar |
|  | 10:45 AM-12:00 PM | Mid-Morning Keynote Session: <br> David Schwartz — Putting the "Wonder" Back in Wonderful: Math Happens When Children Wonder About What They Read | Merrill Hall, Asilomar |

Asilomar Conference Grounds-Saturday Sessions

| Facility |  | 8:00-9:00 | 9:30-10:30 | 11:00-12:00 | 1:30-3:00 | 3:30-5:00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Marcy Cook <br> Mathematics <br> Spoken Here! <br> 6-8 \| PRS | 101 | Ron Brown <br> Rock Your <br> Math Class! <br> PK-2 \| PRS | 201 | David Foster <br> National Core <br> Standards-WYTIWYG <br> GI \| INT | 301 | Harold Jacobs <br> Mathematical <br> Snapshots of 2010 <br> GI \| PRS | 401 | Leigh Childs <br> Engaging Activities + Strategies = Numerically Nimble Students 3-5 \| INT | 501 |
|  |  | Scott Farrand <br> Developing Fraction Sense in Secondary Students 6-12 \| INT | 102 | Dan Meyer <br> Math Curriculum <br> Makeover <br> GI \| INT | 202 | Brad Fulton <br> Graphic Organizers for Teaching Algebra 6-8 \| PRS | 302 | Laura Choate <br> Effective Games and Practices that Lead to Student Success PK-2 \| INT | 402 | Kelley Hunter Math Intervention: Ideas That Work! 6-12 \| PRS | 502 |
| $\begin{aligned} & 8 \\ & 8 \\ & 8 \\ & 0 \\ & 0 \end{aligned}$ |  | Gary Eisenberg <br> Singing, Dancing, and Playing Through K-3 Math PK-2 \| INT | 103 | Jerry Cummins <br> Equity as it is Related to Appropriate Levels of Rigor <br> GI \| PRS | 203 | Barbara Novelli <br> Stirring Up Place <br> Value Understanding <br> and Success <br> 3-5 \| INT | 303 | Barbara Novelli Mixing Up Math Success for All Learners PK-2 \| INT | 403 | Heather Calahan Perspectives on California's New Math Standards GI \| WkS | 503 |
|  |  | Robert Loew <br> Student Signaling Systems Ldrshp \| INT | 104 | Darrell Manderscheid <br> Level the Algebra <br> Playing Field by <br> Teaching Fractions <br> 6-12 \| PRS | 204 | Rick West <br> Preparing for Algebraic <br> Success Using <br> Function Machines <br> PK-5 \| PRS | 304 | Modesto Tamez <br> Integrating <br> Proportions Across <br> the Curriculum <br> 6-12 \| WkS | 404 | Blanche Malankowski- <br> Smith <br> Every Number <br> Wants To Be a Ten <br> PK-2 \| INT | 504 |
|  |  | William Bintz <br> Equity or Rigor: <br> Which Comes First? <br> GI \| PRS | 105 | Sara Moore <br> Algebra for All: Engage <br> Students and Ensure <br> Understanding <br> 6-12 \| INT | 205 | Victor Selby Game Theory: Building a Universal Conceptual Model 8-12 \| PRS | 305 | Sara Moore <br> Virtual Manipulatives? <br> What Does Hands-on <br> Really Mean? <br> 3-8 \| INT | 405 | Vicki Vierra <br> From Passive Spectator to Productively Engaged Thr Ed \| WkS | 505 |
|  |  | Nancy Blachman Fun Ways to Learn Math Facts: Alternatives to "Drill and Kill" 3-5 \| INT | 107 | Stuart Moskowitz <br> 2 Birthday Parties in 1 Day? <br> Problem Simulations <br> on TI-Nspire© <br> 8-C \| WkS | 207 | Daren Starnes <br> Making Sense of Inference for Sampling and Experiments 8-C \| INT | 307 | Daren Starnes Probability and Risk: Increasing Access via Simulation 8-12 \| INT | 407 | Brenda Romanek Powerful Problem Solving: Functions in Algebra II 8-12 \| WkS | 507 |
|  |  | Brian Lim <br> Instructional <br> Strategies to Increase Cognitive Complexity 8-12 \| PRS | 108 | Deborah Lane <br> Math Intervening: Lessons Learned PK-5 \| INT | 208 | Emiliano Gomez <br> Filling Bottles with Water <br> 6-12 \| INT | 308 | Wallace Etterbeek Probability Problems with Surprising Solutions <br> 8-12 \| INT | 408 | David De Laby Making Linear Functions Meaningful 8-12 \| INT | 508 |

## How To Read The Matrix



The matrix also reflects site, room, day and time of session. Refer to the alpha section for more information about each session. Site map on back of program.

## ASK ME!

Need assistance on the day of the conference? Look for the attendees with "Ask Me" stickers.

## IMPORTANT NOTE

Although you have likely planned your schedule ahead of time, it is important that you verify the session information with what appears in this book. The information here reflects some unavoidable changes. Some sessions have changed speakers and/or topics, some have changed times and some have changed location. Please be sure to check on the very last minute information that is posted in the Asilomar registration area.

| Asilomar Conference Grounds-Saturday Sessions |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Facility |  | 8:00-9:00 |  | 9:30-10:30 | 11:00-12:00 | 1:30-3:00 |  | 3:30-5:00 |
| 544444433 |  | Gloria Brown Brooks <br> A Math Circle to Foster Equity in the ELL Math Classroom Tchr Ed \| INT | 109 | $\frac{4}{5}$ | Shelley Kriegler <br> Making Sense of Slope and the Linear Function 6-12 \| INT | 209 | Michael Lutz <br> CAMTE Business Meeting Tchr Ed \| PRS | 309 | Joanne Rossi Becker <br> Math Specialist <br> Credential: Creating <br> CA Programs <br> Tchr Ed \| PRS | 409 | 皆 | Judith Kysh <br> Performance Assessment as Support for Preservice Teachers Tchr Ed \| INT | 509 |
|  |  | Newcomers' Sessioin |  | April Goodman-Orcutt <br> At-Risk Students: <br> Technology and <br> Nontraditional Curric. <br> 6-8 \| INT | 210 | Marty Bonsangue Surprising Problems for Those Not Easily Surprised 6-12 \| INT | 310 | Bruce Cohen An Introduction to Projective Geometry 8-C \| PRS | 410 |  | Karen Arth <br> Equity for K-2 Students Through Lesson Study and Cognit. Guided Inst. PK-2 \| PRS | 510 |
|  |  | Jim Greco <br> Common Core <br> California Standards <br> GI \| PRS | 114 |  | Ann Carlyle Grids, Games and Arrays PK-2 \| WkS | 214 | Matthieu Hamo <br> Standards-Based Mini <br> Projects for All <br> 3-8 \| INT | 314 | Luana Canty The Art of Units: Arrays, Areas and Angles 3-5 \| WkS | 414 | (1) | Kathy Morris Powers of Art: Multiplication for Middle Grades 3-8 \| WkS | 514 |
|  |  | Loring Coes <br> Picturing Proportions: <br> Visual Tasks for Algebra <br> and Geometry <br> 6-12 \| PRS | 115 |  | Bob Petersen  <br> Algebra Connections: $\mathbf{\$}$ <br> All Students Can T <br> Learn Algebra  <br> $\mathbf{8 - 1 2} \mid$ Wks $\mid 215$ B | Sandy Silverman Big Math for Little Kids: Sorting and Patterns PK-2 \| WkS | 315 | Sheldon Erickson <br> Conceptual Algebra: <br> Teach More, Better, <br> Faster <br> 6-8 \| WkS | 415 | $\begin{aligned} & \mathbf{T} \\ & \hline \mathbf{B} \\ & \hline \end{aligned}$ | Marilynn Manderscheid Visual, Auditory, and Kinesthetic Cures for Scrambled Brains 3-5 \| WkS | 515 |
|  |  | Ed Zaccaro <br> Five Real-Life Math Investigations that will Astound Students 6-12 \| PRS | 116 |  | Ed Zaccaro How We Are Lied To: Cheated and Manipulated by Statistics 6-12 \| PRS | 216 | Halcyon Foster <br> An Active Mathematics Intervention <br> 8-12 \| PRS | 316 | Kathleen Jalalpour <br> Singapore Math: <br> An Overview <br> PK-5 \| INT | 416 |  | Staci Erlandson Block Explore Engaging Opportunities to Meet the Needs of ELL 3-5 \| INT | 516 |
|  |  | Priscilla Jo Elsner <br> Empower Diverse Learners to Access the Math Spectrum Tchr Ed \| INT | 117 |  | Cheryl Roddick <br> Using the Singapore Bar Model to Solve Word Problems 3-8 \| $\operatorname{INT}$ \| 217 | Henri Picciotto <br> Escape from the Textbook! Sharing and Collaboration Network 6-12 \| PRS | 317 | Kim Kirley <br> Building Number Sense in the K-1 Classroom PK-2 \| PRS | 417 |  | Victoria Brady  <br> Solar Calendar  <br> Geometry-It's T <br> All Angles! B <br> 6-12 \| Wks $\mid 517$  |

## Special Interest Strands

CAMTE The California Association of Mathematics Teacher Educators brings together a set of speakers whose presentations focus on areas of interest to those involved in pre-service and in-service mathematics teacher education.

LDRSHP The leadership strand focuses on areas of interest to mathematics teacher leaders and coaches as well as district and site administrators.

TODOS In collaboration with TODOS: Mathematics for All!, an affiliate of NCTM, the sessions in this strand focus on issues related to equity and providing all students with high quality mathematics learning opportunities.

MITI In the Make-It, Take-It strand you can make your own models for classroom projects and activities. Each session is limited to 25 participants. There may be a small materials fee for some sessions.

## Evaluation Form

Evaluations (page 41) returned during the conference will be entered in a drawing for FREE conference registration and on grounds housing for next year. The winners for this year's free registration and housing are Kimberly Kirley and Katie Sutton.


Interested in participating in a long-time tradition at Asilomar? Come join the caroling on the beach from 8:30-9:30 p.m. on Saturday night. Meet at the fireplace in the Phoebe A. Hearst Social Hall.

Pacific Grove Middle School—Saturday Sessions

| Room | 8:00-9:00 | 9:30-10:30 | 11:00-12:00 | 1:30-3:00 | 3:30-5:00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Peg Cagle <br> Building Modular <br> Origami $=$ Building <br> Spatial Reasoning <br> 6-12 \| MITI | 130 | Linda Flood <br> Flip Books, Magic Books and More! A Fun Way to Learn Math 3-5 \| MITI | 230 |  | Patricia Ritchie-Reese <br> String Polyhedra with a Twist <br> GI \| MITI | 430 | Joan Zumwalt <br> Let's Make <br> Junk Sequences <br> GI \| MITI | 530 |
|  | Jeanne Ramos <br> Making Mathematics Accessible for All Students: Focus on ELLs <br> 6-8 \| INT | 131 | William Zahner <br> Designing Tasks and Norms for Cooperative Learning with ELLs 6-12 \| INT | 231 |  | Debra Coggins <br> Strategies for Supporting <br> English Learners' <br> Algebra Success <br> 6-12 \| INT | 431 <br> TODOS | Allan Bellman Interactive Learning Objects on a Handheld Device! 8-12 \| INT | 531 |
|  | Christopher Mackenzie Algebra Using Dynamic Illustrations on Excel Spreadsheets 8-C \| PRS | 133 | Jennifer Dirksen Field Trips: Taking Math to the Real World 8-12 \| PRS | 233 |  | Julia Olkin <br> What's Holding This Up? Using Underlying Math Structures 8-12 \| INT | 433 | Cynthia Raff <br> Making Sense of Integer Operations 6-8 \| WkS | 533 |
|  | Greisy Winicki-Landman <br> Fun and Powerful <br> Geometry Activities for All <br> 6-12 \| WkS | 134 | Julie McNamara <br> Beyond Pizzas <br> and Pies: Supporting <br> Fraction Sense <br> 3-5 \| INT | 234 | Jeffrey Gernes Prepare Your Calculus Students for AP Success 8-12 \| PRS | 334 | Masha Albrecht <br> Student Centered <br> Projects to Enrich a Pre-Calculus Class <br> 8-C \| WkS | 434 | Jeff Tobes <br> Math and Carpentry <br> for the Young <br> GI \| INT | 534 |
|  | Patricia Pernin <br> Enhancing Collaborative <br> Workgroups Through <br> Targeted PD <br> Ldrshp \| INT | 135 | Paul Rogers <br> Smartboards <br> for Dummies <br> 6-12 \| PRS | 235 | Mardi Gale <br> Aiming at Algebraic Intervention: Not Business as Usual 6-12 \| PRS | 335 | Elmano Costa <br> Exponential Opportunities for ELLs with Comprehensible Input GI \| WkS | 435 | Lisa Miller <br> Working Together to Provide Opportunities for All Students GI \| PRS | 535 |
|  | Carol Dorf <br> Mathematics and Poetry <br> 6-12 \| WkS | 136 | Melissa Gwaltney <br> How to Make "Extra-Credit" <br> a Meaningful Learning <br> Experience <br> 8-12 \| INT | 236 | Peggy McLean It's a Tangram World 3-5 \| WkS | 336 | Lisbeth Sarcona <br> Strategies for Discussion and Writing in Mathematics 3-5 \| INT | 436 | Lori Lambertson <br> Geometry in <br> Playgrounds <br> 3-8 \| WkS | 536 |
|  | Cliff Petrak <br> Don't Slow Me Down with that Calculator, Part 1 3-8 \| PRS | 137 | Julie Yu <br> Geometry of Nature: Exploring Patterns, Shapes and Symmetry 6-12 \| WkS | 237 | Brandon Matsumoto From Multiplication to Factoring: Strategies for Factoring 6-12 \| INT | 337 | Mark Freathy <br> Building the Foundation <br> for Algebra: Using Factors and Terms <br> 6-12 \| INT | 437 | Jim Miller <br> The Power of One in Teaching Fractions 6-8 \| INT | 537 |
|  | Alice Ho <br> Key Factors to <br> Singapore World-Class <br> Mathematics System <br> Tchr Ed \| PRS | 139 | Karen Arth <br> It's All Connected: <br> Similarity as a Geometric <br> Building Block <br> 8-12 \| WkS | 239 | John Martin <br> A Piece of Pi <br> 8-C \| PRS | 339 | Bob McDonald <br> The Importance of Language, Culture and Power in Mathematics GI \| INT | 439 | Juanita Walker <br> Building a Bridge from Elementary Mathematics to Geometry <br> 3-8 \| WkS | 539 |
| $\begin{aligned} & \text { mo } \\ & \underline{m} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \sim \end{aligned}$ |  | Joshua Cook <br> Mathematical Modeling Using the Tl-Nspire© T <br> 8-C \| WkS | 240 | Joshua Cook <br> Speaking Math <br> 6-12 \| WkS | 340 | Jane Kise <br> Differentiated Coaching: <br> Every Teacher Helping <br> Every Student <br> Ldrshp \| INT | 440 <br> LDRSHP | Eric Muller <br> Exposing Exponents: Really Big and Small Numbers in Science 8-C \| INT | 540 |
|  | Rudy Neufeld <br> Teach, Don't Tell: <br> Understand, Don't <br> Memorize <br> 3-8 \| WkS | 141 | Rudy Neufeld <br> Build It, Draw It, <br> Write It, Talk It... <br> Own the Equity! <br> 3-5 \| WkS | 241 | Emad Elias <br> Closing the Achievement Gap with Math Simulations <br> 3-8 \| WkS | 341 | Ivona Grzegorczyk <br> Fun in Algebra Class! <br> 6-12 \| WkS | 441 | Ivo Dinov <br> Technology-Enhanced Mathematics, Probability and Statistics <br> 8-C \| INT | 541 |
|  | Charles Biehl <br> Empowering Students Outside the Box: Math Behind NUMB3RS 8-12 \| INT | 142 | Pam Mason <br> Effective Practices in Algebra That Create Success for All 8-12 \| INT | 242 | Thomas Bjorkman Diamond Problems Across the Grades 3-8 \| WkS | 342 | Christl Yates <br> Reaching All Learners: <br> Math as a Second <br> Language <br> G1 \| INT | 442 | Cliff Petrack <br> Don't Slow Me Down with that Calculator, Part 2 <br> 3-8 \| PRS | 542 |

Pacific Grove Middle School-Saturday Sessions

| Room | 8:00-9:00 | 9:30-10:30 | 11:00-12:00 | 1:30-3:00 | 3:30-5:00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Clay Dagler <br> Turning Problems into Puzzles Using Graphic Organizers 6-12 \| PRS | 143 | Shairlyn Fish <br> Revealing the Mystery of the Unknown for All Students 3-8 \| INT | 243 | Ruth Chamberlin <br> What's Vocabulary Got to Do with Equity in Mathematics? <br> 3-8 \| INT | 343 | Allan Bellman <br> Differentiation in Your Algebra Class is Easier Than You Think 8-12 \| INT | 443 | Bix Beeman Scaffolding a Square $=$ Success $\wedge 2$ <br> 8-12 \| WkS | 543 |
|  | Richard Kalman <br> Math Contests Build <br> Better Students (and Teachers) Nine Ways <br> 3-8 \| PRS | 144 | Richard Kalman <br> Are You Smarter Than a 5th Grader (2010 edition)? <br> 3-8 \| INT | 244 | Barbara Shreve Developing Linear Relationships 6-8 \| WkS | 344 | Renee Goularte <br> Giant Story Problems: <br> Visualizing the <br> Language of Math <br> PK-5 \| INT | 444 | Nancy McGuire-Paulson Level the Playing Field for All Using Math Games! <br> 6-12 \| WkS | 544 |
|  | Michael Fenton Imagine: Wikipedia for Mathematics Assessment Questions 6-12 \| PRS | 145 | Nancy McGuire-Paulson Fun Factoring: Strategies that Make Sense to All Students! <br> 3-8 \| WkS | 245 | Todd CadwalladerOIsker <br> Making Negatives <br> Tangible Before and During 6th Grade 3-5 \| INT | 345 | Diane Resek <br> Developing Deductive <br> Thinking Before High School 3-8 \| INT | 445 | Michelle Beyronneau <br> Accessing Algebra <br> I Through Multiple <br> Representations <br> 6-12 \| INT | 545 |
|  | Christine Latulippe <br> Improving Achievement Through the Power of Number Sense 6-8 \| $\operatorname{liNT}$ \| 146 | Andre Mathurin <br> Ways to Naturally Revisit Geometry Proofs in Algebra Class 8-12 \| INT | 246 | Dave Youngs <br> Teach Arithmetic Using Algebra for Exponential Learning 3-5 \| INT | 346 | Erich Zeller <br> The Number Line? <br> Animate it to Teach <br> and Reach <br> PK-2 \| WkS | 446 | Maria Hirsch <br> Practical Solutions to Make Math Accessible to All Learners 6-8 \| INT | 546 |
|  | Ron Carlson <br> Engage Your Students with Real Data <br> 8-12 \| PRS | 147 | Zhonghe Wu <br> Differentiating Instruction: <br> A Way to Close the Learning Gap <br> K-8 \| PRS | 247 | Karie Gladis <br> Practical Applications: <br> Differentiation <br> Strategies for Math <br> GI \| INT | 347 | Agnes Tuska <br> Empowering Teachers to Ensure Educational Access to Students Ldrshp \| INT | 447 | Linda Gojak <br> Life's Too Short for Long Division 3-8 \| PRS | 547 |
|  | Donna Goldenstein <br> Mathematics and the Arts: Thinking and Reasoning Through Art 3-5 \| PRS | 148 | Helen Smiler <br> The Power of Exponents to Create Mathematical Opportunities 3-8 \| INT | 248 | Jody Anderson <br> Who, What, When \& How to Assess K-1 Students Efficiently! New! PK-2 \| INT | 348 | Janet Gillespie <br> A Number Sense Approach to $\times$ Facts $=$ Success for All 3-5 \| PRS | 448 | Christopher Casey <br> Number Sense and the Days of School 3-8 \| INT | 548 |
|  | Carrie Carpenter <br> Hot Off the Press! Behind that Math Concept is a Great Story PK-5 \| INT | 149 | Carrie Carpenter <br> Activities for Making Algebraic Reasoning Engaging <br> 6-8 \| PRS | 249 | Keith Smith <br> Going Beyond Algorithms for Area of Polygons <br> 3-8 \| WkS | 349 | Carleen Watts <br> Fractions: For Those <br> Who Need to See <br> It to Believe It <br> 3-8 \| INT | 449 |  |
|  | Randy Guzik Building a Winning AP Calculus Team 8-C \| FG | 150 | Leslie Good <br> Teaching the Standards <br> Through Stories <br> PK-2 \| INT | 250 | Glenda Wilkins <br> A Logical Approach to Proofs: All Students Achieve Success 8-12 \| INT | 350 | Tim Erickson <br> Mathematical Modeling <br> in "Regular"Stats <br> 8-C \| INT | 450 | Robert Preston <br> Room for Alternative <br> Algorithms: Multiplication \& Division <br> 3-8 \| WkS | 550 |
|  | Shuhua An <br> Model-Strategy-Applic. Approach to Assess Diverse Student Math Thinking 3-8 \| INT | 151 | Lynda Holman <br> Graphs: More Than Pretty Pictures 3-5 \| WkS | 251 | Jamie Collie <br> Logarithms: Much More Than Just a Button on the Calculator! 8-12 \| INT | 351 | Tom Murray <br> How Likely Is It? <br> Probability Games of Fun and Chance <br> 3-8 \| WkS | 451 | Melanie Wenrick EEEK! There's a Buggy Algorithm in My Math Class! PK-2 \| INT | 551 |
|  | Brad Fulton <br> Losing Your Marbles: <br> Function Fun <br> for Everyone <br> 3-8 \| PRS | 153 | Steven Leinwand <br> Glimpses of Instructional Excellence <br> GI \| PRS | 253 | Philip Daro <br> Common Core Standards: What is the Difference? B <br> G1 \| PRS | 353 | Marcy Cook <br> Algebraic Experiences for All <br> 3-5 \| PRS | 453 | Michael Serra <br> Investigations in <br> Geometry for 2010 <br> 8-12 \| INT | 553 |

## CONFERENCE EVALUATION FORM

Evaluation (page 41) returned during the conference will be entered in a drawing for FREE conference registration and on-grounds housing for next year. The winners for this year's free registration and housing are Kimberly Kirley and Katie Sutton.

How To Read Speaker List

grade level/target audience
Presentations indicated by "W" require tickets (free).

## Albrecht, Masha - Math Teacher, Berkeley Unified SD <br> Student Centered Projects to Enrich a Pre-Calculus Class

The presenters share projects that connect directly to topics in the pre-calculus curriculum, but use real data and information developed by students. Some projects involve collecting data from a pendulum, bouncing ball, or cooling water. In others, students design the problems and outcomes. Attendees will choose which projects to focus on during the session. You will walk away with ready-touse handouts and samples of student work. Bring a TI-83 or TI-84 calculator if you can.
8-C | WKS | 434 | Saturday, 1:30-3:00 | PG Middle School, Rm 5
Co-presenter: Dan Plonsey — Math Teacher, Berkeley HS
An, Shuhua - Professor, Director of Graduate Program in Math Education, CSU Long Beach
Using Model-Strategy-Application Approach to Assess Diverse Student Math Thinking
The session demonstrates how to use a research-based structured assessment of Model-Strategy-Application (MSA) approach to gauge students' mathematics thinking in culturally and linguistically diverse K-8 classes. You will learn how to analyze and identify students' diverse thinking effectively using sample student MSA work and learn methods of developing students' conceptual understanding, procedural fluency, and competence in problem solving using this visual, structured MSA assessment tool.
3-8 | INT | 151 | Saturday, 8:00-9:00 | PG Middle School, Rm 33
Co-presenter:Zhonghe Wu - Professor, National Univ
Anderson, Jody - Kindergarten Teacher, PARC President, Roseville City SD
Who, What, When \& How to Assess K-1 Students Efficiently! New! Who, what, when, why and how to assess students in the most efficient manner. Explore how to assess your students for standardsbased report cards, differentiated instruction and intervention. Using a center-based approach, you will assess your students in a time efficient manner with all students engaged. Included: ideas for instruction, intervention and homework; making an assessment tool box to use with K-1 standards, and ideas for organizing assessment data. New Management Ideas!
PK-2 | INT | 348 | Saturday, 11:00-12:00 | PG Middle School, Rm 29

Arth, Karen — Director, Region VII Math Project, Mentor Teacher It's All Connected: Similarity as a Geometric Building Block
Start with a rubber band activity that establishes a conceptual basis for understanding similarity. Next solve some rich, interesting problems using similarity. After developing the notion of expanding and reducing figures, use it to develop right triangle trigonometry. Then extend similarity for plane figures to include area comparisons, and conclude with surface area and volume comparisons for threedimensional figures.
8-12 | WkS | 239 | Saturday, 9:30-10:30 | PG Middle School, Rm 12 | \$
Equity for K-2 Students Through Lesson Study and Cognitively Guided Instruction
Watch videos of children excited about learning mathematics. Hear teachers share their process of collaborating over time to develop a research lesson based upon students' thinking. See a classroom in which students are encouraged to solve problems using strategies that make sense to them and often using multiple strategies. Find out about how lesson study blended with cognitively guided instruction can provide the environment that allows all students to experience success in mathematics.
PK-2 | PRS | 510 | Saturday, 3:30-5:00 | Asilomar, Curlew
Co-presenter: Rajee Amarasinghe - Mathematics Faculty, CSU Fresno
Beeman, Bix - Teacher, Merced Union HSD

## Scaffolding a Square = Success^2

A rich and thematic set of problems (developed by the California Mathematics Project and the MPDI) illustrate effective scaffolding of area and perimeter concepts. At their upper level, an elegant solution to the area maximization problem highlights the value of completing the square. Taking this experience back into the classroom and incorporating manipulatives has yielded tips to improve instruction and increased student success when analyzing conic sections.
8-12 | WkS | 543 | Saturday, 3:30-5:00 | PG Middle School, Rm 24 | BT

## Bellman, Allan — Lecturer, UC Davis

## Differentiation in Your Algebra Class is Easier Than You Think

See how scaffolding and multi-level material can be used to create a differentiated classroom. Learn how to create differentiated material and use this material during interactive lectures and group work sessions. Learn techniques, with or without technology, to quickly assess individual readiness at the start of a class period, and then use this information to form productive student groups. This easy form of differentiation can help minimize discipline problems and provide success for all.
8-12 | INT | 443 | Saturday, 1:30-3:00 | PG Middle School, Rm 24 | BT
Interactive Learning Objects on a Handheld Device!
Many of the math manipulative and computer learning tools that we teach with are now available on the TI-Nspire ${ }^{\oplus}$ calculator. Experience some of what's available for algebra. Work with virtual algebra tiles, algebra balances, sliders that change function parameters, and lots more. Discuss how this type of learning objects can aid student achievement. No more hassles trying to schedule the computer lab, get online, or clean-up manipulatives. You don't need to know much about the calculator!
8-12 | INT | 531 | Saturday, 3:30-5:00 | PG Middle School, Rm 1

Beyronneau, Michelle - Math Coach/Teacher, San Bernardino City USD

## Accessing Algebra I Through Multiple Representations

Participants will engage in activities designed to develop a rich understanding of the connections between a table, graph, rule, and context. After solving challenging problems and exploring the ways connections can be used to enrich learning, teachers will analyze how emphasizing multiple representations can help to develop students into powerful problem-solvers. Teachers will receive ideas and materials that they can use in their own algebra classrooms. 6-12 | INT | 545 | Saturday, 3:30-5:00 | PG Middle School, Rm 26

Biehl, Charles - Mathematics Instructor, MD

## Empowering Students Outside the Box: Math Behind NUMB3RS

This session uses clips from the CBS crime drama NUMB3RS and a walk-through of a sample of novel classroom activities based on the mathematics used in the show. Doing mathematics in realistic context serves to draw a higher interest level from a wider variety of students, and the topics themselves tend to be extensions of existing curriculum or even novel mathematics. This has been observed to spark traditionally non-inspired students to become more active math doers and appreciators.
8-12 | INT | 142 | Saturday, 8:00-9:00 | PG Middle School, Rm 22Lab | \$
Bintz, William — Associate Professor, Ohio

## Equity or Rigor: Which Comes First?

This session discusses the interrelationship between equity and rigor. The definition of rigor one chooses determines which students appear to succeed and which do not. To achieve equity the definition of rigor in mathematics must be carefully considered. We will present definitions of rigor from a variety of sources, share examples of rigorous, classroom-based mathematical tasks, and discuss implications of these definitions and tasks for increasing equity in the mathematics classroom.
GI | PRS | 105 | Saturday, 8:00-9:00 | Asilomar, Evergreen
Co-presenter: Sara Moore - Director of Mathematics, ETA Cuisenaire

## Bjorkman, Thomas - Mathematics Coach

## Diamond Problems Across the Grades

See how to use this effective teaching strategy to reinforce operations with whole numbers, fractions, decimals and integers to show the relationships between multiplying, dividing, adding and subtracting. We will show how to introduce this strategy in the lower grade levels and how to progress it through middle school math content and into algebra-culminating with how to use diamond problems with polynomials, factoring, and completing the square.
3-8 | WKS | 342 | Saturday, 11:00-12:00 | PG Middle School, Rm 22Lab | BT
Co-presenter: Caren Friedman - Teacher, Harvest MS

## PROGRAM CHANGES

Although this book contains the latest information available as of the printing deadline, some last-minute changes are inevitable. We apologize for any inconvenience that may result, and we appreciate your understanding.

Blachman, Nancy — Math Instructor, Lincoln ES/Princeton Day
Fun Ways to Learn Math Facts: Alternatives to "Drill and Kill"
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. No need for flashcards, worksheets, and other repetitious material likely to turn many young learners off mathematics. Nancy Blachman, founder of the Julia Robinson Mathematics Festival (www.jrmathfestival.org) and the web site MathDelights.org, teaches after-school Mathemagic classes and summer camps. Dr. Lynne Ipina inspires middle school math teachers at the University of Wyoming.
3-5 | INT | 107 | Saturday, 8:00-9:00 | Asilomar, Acacia
Co-presenter: Lynne Ipina
Bonsangue, Marty — Professor of Mathematics, CSU Fullerton Surprising Problems for Those Not Easily Surprised
This session presents mathematics problems that have unexpected, but not trick solutions. The problems should be accessible to many MS and most HS and college level students, and are excellent for building students' mathematical power, interest, and self-esteem. Problems are aligned with major state and national topic strands, including number sense, algebra, geometry, and problem-solving. Classroom-ready handouts provided for everyone.
6-12 | INT | 310 | Saturday, 11:00-12:00 | Asilomar, Curlew
Co-presenter: Jerry Gannon — Professor of Mathematics, CSU Fullerton

## Brady, Victoria - Staff Educator, The Exploratorium

## Solar Calendar Geometry-It's All Angles!

Explore the geometry of the sky as we model the orbital planes and relative positions of the sun and moon through the seasons and discuss the 18.6 year "lunar standstill." We will make a "pinhole analemma" and design our own "ancient observatory."This workshop is based on observations and activities done at the Cesar Chavez Memorial Solar Calendar in Berkeley, California.
6-12 | WKS | 517 | Saturday, 3:30-5:00 | Asilomar, Nautilus West | BT
Brown, Ron - Author/Songwriter/Consultant, Intelli-Tunes

## Rock Your Math Class!

Teach time, money, place value, fractions, number sense, shapes and much more with the power of classroom tested songs, games, activities, rhythm and rhyme. Ignite your teaching, energize your classroom, and accelerate achievement. Create equity in teaching mathematics with the power of music. Handouts! Prizes! PK-2 | PRS | 201 | Saturday, 9:30-10:30 | Asilomar, Fred Farr Forum | BT | \$ Co-presenter: Nancy Brown - Teacher Consultant

Brown Brooks, Gloria - Teacher, San Benito COE
A Math Circle to Foster Equity in the English Language Learner Math Classroom
Math Circles can provide pedagogical as well as content knowledge to help insure equity in the classroom. Many of our middle school teachers are looking for new ways to develop lessons for English language learners. This session will provide ways to bridge the gap in middle school mathematics.
Tchr Ed | INT | 109 | Saturday, 8:00-9:00 | Asilomar, Marlin
Co-presenter: Angel Rivera

CadwalladerOlsker, Todd — Assistant Professor, CSU Fullerton<br>Making Negatives Tangible Before and During 6th Grade

This session will introduce an activity designed to make negative numbers tangible to students through a simple game. By playing the game, students (and teachers) can discover the usual rules for addition and subtraction of positive and negative numbers in a natural and fun way.
3-5 | INT | 345 | Saturday, 11:00-12:00 | PG Middle School, Rm 26
Cagle, Peg — Teacher, Los Angeles Unified SD

## Building Modular Origami = Building Spatial Reasoning

Extend your students' understanding of three-dimensional geometry through an examination of the underlying structure and interrelations of polyhedra, including surface and dihedral angles, axes and planes of symmetry, and the concept of duality, by creating a variety of captivating modular paper-folded models. No previous origami experience required.
6-12 | WkS | 130 | Saturday, 8:00-9:00 | PG Middle School, Library
Calahan, Heather - Lecturer in Mathematics and Executive Director of Curtis Center, UC Los Angeles

## Perspectives on California's New Math Standards

Come for an introduction to the new standards. You'll hear from a few members of the Academic Content Standards Commission as they provide their insights into the standards, and how they might change the mathematical life in CA classrooms from K-12. These standards describe a carefully ordered mathematical development and emphasize depth over breadth, mathematical habits of mind, and applications.
GI | WkS | 503 | Saturday, 3:30-5:00 | Asilomar, Heather
Co-presenter: Scott Farrand
Canty, Luana - Curriculum Specialist, Pearson
The Art of Units: Arrays, Areas and Angles
Students' conceptual understanding of multiplication starts with the visual representation of an array. But the square units in the arrays can teach so much more! From a visual tool of a single square unit we can teach measurement that builds understanding through patterns to multiplication, area and perimeter and more. Come and see how creatively and artistically unit-building can be used to visually teach math concepts.
3-5 | WkS | 414 | Saturday, 1:30-3:00 | Asilomar, Surf \& Sand
Carlson, Ron — Professor, Eastern Michigan Univ

## Engage Your Students with Real Data

Challenge your students with real data and technology. This session will generate data that can be modeled with a step function. The data is collected with a TI-Nspire ${ }^{\ominus}$ and a CBR2 ${ }^{\ominus}$. The participants will analyze the data, discover a function that models the data and explore the effects of several of the variables.
8-12 | PRS | 147 | Saturday, 8:00-9:00 | PG Middle School, Rm 28

## SPEAKER PROPOSALS

Interested in presenting at the 2011 Asilomar Mathematics
Conference? Submit speaker proposals on-line by
April 10, 2011 at www.cmc-math.org/activities/north_speakers.html

Carlyle, Ann - Supervisor, The Gevirtz School, UC Santa Barbara
Grids, Games and Arrays
In this K-2 workshop, the tens frame is used as a way for students to see a number of objects as composed of fives and extras. The arithmetic rack (rekenrek) is a visual and physical tool for thinking about number combinations and differences. We will explore some engaging games that build number sense using these kinds of grids and arrays. The supplies required for the classroom are simple to make and/or readily available.
PK-2 | WKS | 214 | Saturday, 9:30-10:30 | Asilomar, Surf\& Sand | BT

## Carpenter, Carrie — Math Consultant

## Hot Off the Press! Behind that Math Concept is a Great Story

Come join in a fun and practical session that has the best new children's literature from 2008-10. Literature helps link math concepts to real-world applications, and helps reluctant learners achieve.
Experience the math and literature connection through activities
that are motivating, simple, and relevant.
PK-5 | INT | 149 | Saturday, 8:00-9:00 | PG Middle School, Rm 31 | \$
Activities for Making Algebraic Reasoning Engaging
Algebra remains the pathway to access for advanced math classes, yet the teaching of algebraic reasoning starts early. Engaging middle school learners into algebraic reasoning requires more than paper, pencil, and textbooks. Participants will engage in student-centered algebra activities, hands-on lessons, literature selections, and games. 6-8 | PRS | 249 | Saturday, 9:30-10:30 | PG Middle School, Rm 31 | BT | \$

## Casey, Christopher - Curriculum Developer

## Number Sense and the Days of School

This session is for 4 th, 5 th or 6th grade teachers to reinforce number sense on a daily basis. Using about 5 minutes a day, students discuss aspects about the day of school, such as its factors. On the 24th day of school students might say that 24 is a multiple of $1,2,3,4,6,8,12$, and 24 , it's even and composite and it is $2 / 15$ of the school year. This daily activity is set up by several activities that will be presented: using Pascal's triangle, 100 charts, Venn Diagrams, etc.
3-8 | INT | 548 | Saturday, 3:30-5:00 | PG Middle School, Rm 29 | \$
Chamberlin, Ruth — Secondary Math Specialist/Instructional Coach, Olympia SD, Vancouver, WA

## What's Vocabulary Got to Do with Equity in Mathematics?

Struggling students often lack the requisite math vocabulary. This session will focus on key components of embedded vocabulary development. Practical strategies and games to increase mathematical vocabulary will be shared. Many of these strategies can be implemented next week.
3-8 | INT | 343 | Saturday, 11:00-12:00 | PG Middle School, Rm 24
Co-presenter: Shairlyn Fish — K-4 Teacher, Moses Lake SD
Childs, Leigh — Consultant
Engaging Activities+Strategies $=$ Numerically Nimble Students
Work smarter, not harder to improve numeric competence. These strategies promote greater participation and sense making, ideal for intervention success and "family math" efforts. A ready-for-immediateuse handout includes high-interest activities to improve students' performance and enhance mathematical reasoning abilities.
3-5 | INT | 501 | Saturday, 3:30-5:00 | Asilomar, Fred Farr Forum | BT

Choate, Laura - Teacher, Iowa Street School, Fallbrook Union Elem SD

## Effective Games and Practices that Lead to Student Success

Be more efficient and selective about time devoted to number. A ready-to-use handout of highly engaging, repeatable activities and instructional strategies will help you enhance number sense and build confidence in your students.
PK-2 | INT | 402 | Saturday, 1:30-3:00 | Asilomar, Kiln

## Coes, Loring — Teacher, Rocky Hill School, RI Picturing Proportions: Visual Tasks for Algebra and Geometry

 Proportional thinking is at the heart of algebra, geometry, calculus and of everyday mathematics, too, yet many students are uncomfortable with their own proportional thinking skills. Here are some visual activities that can develop skill and confidence in this critical area of reasoning for middle and high school students. 6-12 | PRS | 115 | Saturday, 8:00-9:00 | Asilomar, Triton
## Coggins, Debra - Math Coach, Debra Coggins \& Associates

 Strategies for Supporting English Learners' Algebra Success English learners, and other students, benefit from instruction that creates and maintains access by incorporating multiple representations, frequent formative assessments, and opportunities to "talk math." Specific ELL teaching strategies for mathematical concept and language development, along with classroom routines that increase engagement, will be presented and discussed, using the context of writing and solving algebraic equations.6-12 | INT | 431 | Saturday, 1:30-3:00 | PG Middle School, Rm 1
Cohen, Bruce - Math Teacher, Lowell HS,
San Francisco Unified SD

## An Introduction to Projective Geometry

We will introduce the beautiful topic of projective geometry. We will not assume any prior study of projective geometry, but our tour will include several nice theorems. Studying projective geometry gives teachers a way to reconsider the concept of infinity in a geometric setting. What is a geometry? As a practical concern, projective geometry comes into play in the mathematics of displaying three dimensional objects on a two dimensional computer screen.
8-C | PRS | 410 | Saturday, 1:30-3:00 | Asilomar, Curlew
Co-presenter: David Sklar - Lecturer, San Francisco State Univ
Collie, Jamie — Math Teacher, Marin Academy Logarithms: Much More Than Just a Button on the Calculator!
This session will provide opportunities to enrich a unit on logarithms. We will begin with a technique for estimating log values by hand. In addition to demystifying the values that come out of the calculator, the activity reinforces previous topics while setting up the rules of logarithms. After some numerical experimentation we will break out basic paper slide rules and both discover and explain how simple looking devices can do calculations so quickly. Classroom ready digital files included.
8-12 | INT | 351 | Saturday, 11:00-12:00 | PG Middle School, Rm 33

## Cook, Joshua - Faculty Advisor, UC Los Angeles <br> Mathematical Modeling Using the TI-Nspire ${ }^{\ominus}$

This workshop will focus on using the multiple representation functionality of the TI-Nspire ${ }^{\ominus}$ to model real world situations.
There will be an emphasis on algebra and calculus.
8-C | WkS | 240 | Saturday, 9:30-10:30 | PG Middle School, Rm 13 | BT

## Speaking Math

A language-based approach to the instruction of math. Research shows that a more interactive classroom is an effective way to build student mastery. Teachers should use language as a "social tool for collective thinking."We will focus on making talk central to learning and knowing, especially for English language learners. We will practice giving students access to academic concepts by talking through their definitions with each other and by forming definitions using familiar language and concepts.
6-12 | WkS | 340 | Saturday, 11:00-12:00 | PG Middle School, Rm 13 | BT
Cook, Marcy — Math Consultant/Author
Mathematics Spoken Here!
Provide a rich mathematical environment focusing on communication, problem solving, and reasoning. Utilize a math menu of starters and independent task time to ensure that the language of math is emphasized along with textbook problems. Experience simple tools for student participation and constant teacher assessment. Practical ideas to put to immediate use in the classroom.
6-8 | PRS | 101 | Saturday, 8:00-9:00 | Asilomar, Fred Farr Forum | BT
Algebraic Experiences for All
Provide algebraic thinking experiences to involve all students in meaningful mathematics. Set up a math menu to incorporate algebraic thinking into your daily routines: as starters, mental math, stumpers and/or independent task time. See patterns, deal with unknowns or variables, work with the equation as a balance and look for relationships. Practical ideas to put to immediate use in your classroom to develop mathematical competence and confidence. 3-5 | PRS | 453 | Saturday, 1:30-3:00 | PG Middle School, Auditorium | BT

Costa, Elmano - Professor, CSU Stanislaus/TODOS
Exponential Opportunities for English Language Learners with Comprehensible Input
Yes they can! English learners can meet the high expectations with specially designed instruction. This workshop shows you how to plan and deliver lessons that are comprehensible to English language learning students at every level. It shows how to integrate the hallmarks of quality instruction for English language learning students. The highlight of this session is a lesson taught in another language that illustrates how to make content accessible and comprehensible even to students who speak no English.
GI | WkS | 435 | Saturday, 1:30-3:00 | PG Middle School, Rm 6 | BT

## NAME BADGES!

Name badges must be worn at all times while attending the conference. Badges are required for entry into the sessions and the exhibit halls.

## Cummins, Jerry - Past President,

## National Council of Supervisors of Mathematics

## Equity as it is Related to Appropriate Levels of Rigor

Using Professional Learning Communities so that every teacher addresses gaps in mathematics achievement expectations for all student populations and every teacher works interdependently in a collaborative learning community to erase inequities in student learning.
GI | PRS | 203 | Saturday, 9:30-10:30 | Asilomar, Heather
Dagler, Clay — Teacher, Luther Burbank HS, Sacramento City Unified SD
Turning Problems into Puzzles Using Graphic Organizers
Two graphic organizers will be used in this session. The first is a mathematical cloze where students will be given a worked out problem with missing parts. This activity turns most math problems into puzzles. The second organizer will be a flow chart which forces students to think forward and backwards. It will be used with topics including long division, solving equations, and exponent laws. However, these organizers can be used to support most topics in mathematics.
6-12 | PRS | 143 | Saturday, 8:00-9:00 | PG Middle School, Rm 24

## Daro, Philip - Mathematics Educator

## Common Core Standards: What is the Difference?

Forty-eight states have signed on to have common standards written in mathematics and English language arts. So what? How will common standards change anything for teachers and students? The speaker was a member of the writing team that led the development of the standards for mathematics. He will show some of the key points of difference in the substance of the standards, explain why they are the way they are and discuss how the standards can make a difference for teachers.
GI | PRS | 353 | Saturday, 11:00-12:00 | PG Middle School, Auditorium | BT
De Laby, David — Math Instructor, CSU Dominguez Hills

## Making Linear Functions Meaningful

Most of the Algebra I curriculum revolves around linear functions. Taking a meaningful approach to this idea can help student understanding of graphing linear functions, slope, intercept, linear systems, etc. It also can make solving linear equations more meaningful to students. You'll get a sampling of problems that can enhance your instruction and make Algebra I accessible to all of your students.
8-12 | INT | 508 | Saturday, 3:30-5:00 | Asilomar, Toyon

## IMPORTANT NOTE

Although you have likely planned your schedule ahead of time, it is important that you verify the session information with what appears in this book. The information here reflects some unavoidable changes. Some sessions have changed speakers and/or topics, some have changed times and some have changed location. Please be sure to check on the very last minute information that is posted in the Asilomar registration area.

Dinov, Ivo - Professor of Statistics and Neurology, UC Los Angeles
Technology-Enhanced Mathematics, Probability and Statistics
Statistics Online Computational Resource (SOCR) components will be demonstrated. Distributions: interactive graphs and calculators; Experiments: virtual analogs of popular games; Analyses: collection of common web-accessible tools for statistical data analysis; Games: interfaces and simulations to real-life processes; Modeler: tools for distribution, polynomial, Fourier and Wavelet model-fitting and simulation; and Graphs, Plots and Charts: comprehensive web-based tools for exploratory data analysis. Visit our web site at:

## http://www.socr.ucla.edu

8-C | INT | 541 | Saturday, 3:30-5:00 | PG Middle School, Rm 21Lab | BT
Co-presenter: Nicolas Christou — Professor of Statistics, UC Los Angeles
Dirksen, Jennifer - Teacher,
San Mateo HS, San Mateo Union HSD
Field Trips: Taking Math to the Real World
Come learn about field trips that have excited and motivated our students in the last few years. We'll show you how we plan, run, assess, and support the learning of all our students through projects like scavenger hunts on UC campuses, geometry walks in the city, study sessions in university libraries, and crazy competitions at Calculus Camp. Hear how we use the trips to open channels for dialogue about college, and leave with the resources you need to lead your own!
8-12 | PRS | 233 | Saturday, 9:30-10:30 | PG Middle School, Rm 4
Co-presenter: Jinna Hwang - Teacher, Francis Polytechnic HS
Dorf, Carol - Math Teacher, Berkeley HS, Berkeley Unified SD Mathematics and Poetry
Mathematics and poetry are often seen as opposed to each other. However both seek the essence of experience, and compress our understandings into often-elegant forms. Writing poetry about mathematics increases understanding of mathematics, enriches poetic vocabulary, and integrates feeling into cognitive understandings. This workshop will present poems about mathematics and a bibliography. Teachers will experiment with writing games and exercises that are effective in the classroom. 6-12 | WkS | 136 | Saturday, 8:00-9:00 | PG Middle School, Rm 7

Eisenberg, Gary — Math and Language Arts Enrichment Teacher, Eugene Padan Elem, Vacaville Unified SD

## Singing, Dancing, and Playing Through K-3 Math

Participants will not only have fun at this session, but they will leave with practical, ready-to-use activities for Monday that will get the following math concepts into student long term memory: writing numbers, shapes, even and odd, doubles, place value, time, skip counting, and multiplication. We will relearn some of Ron Brown's great math songs as well as learn some great cooperative learning number games and how to teach extended number patterns as a basis for eventual times table mastery.
PK-2 | INT | 103 | Saturday, 8:00-9:00 | Asilomar, Heather | BT

## ASK ME!

Need assistance on the day of the conference? Look for the attendees with "Ask Me" stickers.

Elias, Emad - Mulholland MS, Los Angeles Unified SD Closing the Achievement Gap with Math Simulations
In this engaging hands-on session, you will enter a 21 st century classroom where you learn math using online simulations. Participants will become aware of the potential power of simulations for teaching math concepts using an inquiry-based approach. They will become familiar with various simulations and their correlation to the state math standards. Participants will gain an in-depth understanding of the simulations'implementation in the classroom. 3-8 | WkS | 341 | Saturday, 11:00-12:00 | PG Middle School, Rm 21Lab

Elsner, Priscilla Jo - Math Teacher Leader, Oakland Military Institute College Preparatory, Oakland
Empower Diverse Learners to Access the Math Spectrum
Questioning skills, relational thinking through talking and writing math, formative multi-level investigations and tasks, reengagement ideas based on student work, how the brain learns, and the real world of students will be shown to create equal opportunities for diverse learners to access material, to empower students in use of multiple strategies for greater achievement and to develop tools for higher levels of thinking and problem solving.
Tchr Ed | INT | 117 | Saturday, 8:00-9:00 | Asilomar, Nautilus West | BT
Erickson, Tim — Teacher, Lick-Wilmerding HS
Mathematical Modeling in "Regular" Stats
What does modeling look in this setting? We'll look at (and do) tasks from our stats class that are designed to help students understand how to use symbolic, tabular, and graphical tools to describe concrete relationships. The class makes extensive use of software to support students in data analysis. We'll discuss what effect that has, and see student work.
8-C | INT | 450 | Saturday, 1:30-3:00 | PG Middle School, Rm 32
Erickson, Sheldon - Teacher,
Computech MS, Fresno Unified SD

## Conceptual Algebra: Teach More, Better, Faster

Research shows that students learn best when they gain conceptual understanding before moving to procedural recipes. Explore handson investigations and video animations that develop conceptual understanding and lead to abstract procedures. The session will focus on solving equations and linear functions. Get materials, learn how to facilitate active learning, and how to integrate conceptual instruction into you classroom.
6-8 | WkS | 415 | Saturday, 1:30-3:00 | Asilomar, Triton | BT
Erlandson Block, Staci - Coordinator II, Ventura COE
Explore Engaging Opportunities to Meet the
Needs of English Language Learners
Come explore opportunities for educators to refine their skills for teaching English learners. Discover how to create robust lessons with research-based strategies that will help your students improve their academic vocabulary and foster higher order thinking skills. Participants will observe and discuss GLAD and Kagan Cooperative Learning strategies that promote language acquisition and development. Hands-on experiences will further empower teachers and students to increase math proficiency.
3-5 | INT | 516 | Saturday, 3:30-5:00 | Asilomar, Nautilus East

Etterbeek, Wallace - Professor of Mathematics, CSU Sacramento
Probability Problems with Surprising Solutions
We will look at several elementary problems in probability, including some of the very first considered. Included in these will be several versions of the Monty Hall Problem. We will use geometric probability to introduce and develop conditional probability and then use conditional probability to obtain some surprising solutions to our problems.
8-12 | INT | 408 | Saturday, 1:30-3:00 | Asilomar, Toyon

## Farrand, Scott — Professor of Mathematics, CSU Sacramento Developing Fraction Sense in Secondary Students

In the same way that there is number sense that goes beyond skill with the algorithms for whole numbers, there is much to know about fractions that is not included in instruction in the algorithms for fractions. We'll look at sequenced sets of exercises that help students to develop fraction sense. Designed especially as warm-up exercises for algebra students with weaknesses in fraction skills, these exercises are puzzles that promote reasoning and a deeper understanding of fractions.
6-12 | INT | 102 | Saturday, 8:00-9:00 | Asilomar, Kiln
Co-presenter: Debra Stetson — Project Director, Math Project, CSU Sacramento

Fenton, Michael - Teacher, Fresno Christian Schools, Fresno Imagine: Wikipedia for Mathematics Assessment Questions Imagine having free access to a rich, growing bank of multiple choice and open ended questions for every mathematics course taught in secondary school! It takes time to create truly high quality questions of both types. Stop spinning your wheels in isolation. I'll cast the vision for assembling an organized, standards-based, peerreviewed, and peer-improved pool of questions. Think "Wikipedia" for mathematics assessment! No advanced tech skills required. 6-12 | PRS | 145 | Saturday, 8:00-9:00 | PG Middle School, Rm 26 | BT

Fish, Shairlyn - Teacher, Larson Heights, Moses Lake SD 161 Revealing the Mystery of the Unknown for All Students
Looking for ways to help all students develop concepts? Participants will explore many rich and proven mathematical tasks to help
students develop and deepen their conceptual thinking. Lessons are adaptable for students of varied abilities.
3-8 | INT | 243 | Saturday, 9:30-10:30 | PG Middle School, Rm 24
Co-presenter: Ruth Chamberlin - Math Coach, Olympia WA SSD
Flood, Linda - Teacher,
E. Ruth Sheldon ES, Fairfield-Suisun Unified SD

Flip Books, Magic Books and More! A Fun Way to Learn Math
Flip books are a fun way to help students learn vocabulary, formulas, and concepts. These books also act as a reference tool. This Make-lt, Take-lt workshop will provide you an opportunity to learn to make the books as well as to see a variety of ways that they can be used in a classroom.
3-5 | MITI | 230 | Saturday, 9:30-10:30 | PG Middle School, Library

Foster, David - Executive Director, Silicon Valley Mathematics Initiative

## National Core Standards-WYTIWYG

What might be the out growth from the new National Core Standards? How might they influence summative and formative assessments? How are the standards being addressed, embraced and what innovations are occurring in other states? How might curriculum change? How might teaching and learning change? This session will address these questions and share work and products from several states who are embracing the new core standards. GI | INT | 301 | Saturday, 11:00-12:00 | Asilomar, Fred Farr Forum

Foster, Halcyon - Assistant Professor, San Francisco State Univ An Active Mathematics Intervention
This session will describe a summer mathematics intervention program for students entering high school who have previously struggled with mathematics. One hundred students from the San Francisco Unified School District attended a five-week mathematics program that focused on algebra, geometry, and probability and statistics, where each lesson was based on a hands-on activity. The session will address the curriculum and its philosophy, the successes, and the challenges that students and teachers faced.
8-12 | PRS | 316 | Saturday, 11:00-12:00 | Asilomar, Nautilus East

## Freathy, Mark - Math Teacher,

## Pinkerton MS, Elk Grove Unified SD

Building the Foundation for Algebra: Using Factors and Terms
In this session teachers will discuss the development of math language that supports a greater conceptual understanding of Algebra. Teachers will be given strategies and designed lessons that promote the use of factors, terms, and decomposition. These strategies will enhance student understanding of integers, fractions, and solving equations. Teachers will leave this session with ideas and worksheets that they can use in the classroom to improve their instruction Monday morning.
6-12 | INT | 437 | Saturday, 1:30-3:00 | PG Middle School, Rm 10 | BT
Co-presenter: Brandon Matsumoto — Math Teacher, Pinkerton MS
Fulton, Brad - Teacher, Mistletoe ES, Enterprise Elem SD Losing Your Marbles: Function Fun for Everyone
This clever and engaging activity has made functions accessible for all students from 4th grade through high school algebra. They can see, understand, and discuss concepts such as slope, y-intercept, domain, and range. The slope-intercept formula flows logically from the visual demonstration. Extensions allow the illustration of positive, negative, zero and fractional slopes, and line of best fit. A comprehensive handout is available.
3-8 | PRS | 153 | Saturday, 8:00-9:00 | PG Middle School, Auditorium | BT
Graphic Organizers for Teaching Algebra
Learning algebra can be challenging. These classroom-proven graphic organizers have helped students gain mastery of both concepts and computation. Great for regular education and struggling students, this presentation will help you guide your students to greater success in both algebra and algebra readiness courses. A complete handout is provided.
6-8 | PRS | 302 | Saturday, 11:00-12:00 | Asilomar, Kiln | BT

Gale, Mardi — Senior Research Associate, WestEd
Aiming at Algebraic Intervention: Not Business as Usual
Aim at intervention from a different angle. Learn about essential elements for algebraic intervention by examining a successful, conceptually based program that is standards-aligned and supports struggling students through modules that target common barriers to success in algebra and provides teacher support for each lesson. Flexible implementation for grade levels and schedules. Includes number theory, exponents, rational numbers, equations and formulas, proportional reasoning.
6-12 | PRS | 335 | Saturday, 11:00-12:00 | PG Middle School, Rm 6 | \$
Gernes, Jeffrey — Math Teacher,
Montclair College Preparatory, Van Nuys
Prepare Your Calculus Students for AP Success
An AP Calculus $A B$ \& $B C$ teacher with ten years of experience, I will share some insights and techniques I have developed which have helped my students succeed on the AP Exam. I will discuss curriculum choices for both courses, with an emphasis on the strategies I use to motivate and prepare students for the AP Exam. Whether you are a first-time calculus teacher looking for guidance or an experienced AP teacher looking for inspiration, this session is for you.
8-12 | PRS | 334 | Saturday, 11:00-12:00 | PG Middle School, Rm 5
Gillespie, Janet - Author, Former Title 1 Math Specialist, Portland Schools (retired)

## A Number Sense Approach to X Facts = Success for All

Explore a school-wide approach to teaching x facts that encourages algebraic reasoning while building fluency in 5-10 minutes a day. Visual models, including a special counting tape and array flash cards for use at school and home, help children see ways to break harder facts into easier ones, speeding memorization for all. Materials provided.
3-5 | PRS | 448 | Saturday, 1:30-3:00 | PG Middle School, Rm 29

## Gladis, Karie - Director of Education and Professional

 DevelopmentPractical Applications: Differentiation Strategies for Math
Learn how to differentiate curriculum for all learners to develop 21st Century Skills and higher-level thinking skills. Explore research-based strategies for differentiating mathematics by content, process, and product. Lessons using the strategies will be modeled and the step-by-step processes for implementing the strategy will be debriefed. Acquire methods for leading lesson writing and lesson study using these essential strategies.
GI | INT | 347 | Saturday, 11:00-12:00 | PG Middle School, Rm 28 | BT | \$

## CELL PHONES AND PAGERS

Out of respect for presenters and other participants, please turn off cell phones and pagers during sessions.

## Gojak, Linda - Past President, National Council of Supervisors of Mathematics <br> Life's Too Short for Long Division

Do your students struggle with division? Explore the two models of division and questioning techniques that will help your students to understand what it means to divide. The concepts of whole number division, when understood, lead to developing and understanding division with fractional numbers and decimals as well. Using the process standards will open a door to understanding and doing division successfully.
3-8 | PRS | 547 | Saturday, 3:30-5:00 | PG Middle School, Rm 28 | BT
Goldenstein, Donna - Teacher,

## Lorin A. Eden ES, Hayward Unified SD

## Mathematics and the Arts: Thinking and Reasoning Through Art

This session will focus on math/art activities that help assess mathematical thinking and reasoning as well as help students access the core curriculum. Participants will be introduced to a variety of art projects that deepen the mathematical concepts in an intermediate grade classroom. Participants will see student work as well as a variety of journal prompts that integrate literature, mathematics and the arts. 3-5 | PRS | 148 | Saturday, 8:00-9:00 | PG Middle School, Rm 29

## Gomez, Emiliano - Academic Coordinator/Mathematics Specialist, UC Berkeley <br> Filling Bottles with Water

Different groups will gradually fill different bottles with water and measure the height of the water with each increment in volume.
We will graph the results and try to match the graphs to the bottles.
We will then study more deeply the relationship between the shape of the bottle and the properties of the resulting graph, like linearity, concavity, and kinks. This will be fun, interactive and challenging! 6-12 | INT | 308 | Saturday, 11:00-12:00 | Asilomar, Toyon

Good, Leslie - Kindergarten Teacher,
Ellerhorst ES, West Contra Costa Unified SD

## Teaching the Standards Through Stories

Use favorite children's literature to make the standards come alive in your math classroom. Stories emphasizing counting and number, measurement, geometry, probability, money, fractions, addition/ subtraction, and time will be presented. Hands-on activities, suggested resources, student work samples, and a detailed handout will be provided. Bring your favorite math story to share!
PK-2 | INT | 250 | Saturday, 9:30-10:30 | PG Middle School, Rm 32 | BT
Goodman-Orcutt, April - 8th Grade Math Teacher, Miller MS, Cupertino USD

## At-Risk Students: Technology and Nontraditional Curriculum

For the last couple of years I have taught an Algebra Readiness Class using a self-paced web-based program and nontraditional curriculum (like College Preparatory Mathematics or America's Choice Ramp-Up to Algebra). The blending of skills building using the technology and the open-ended thinking curriculum of CPM and America's Choice has shown some improvement in the students' California Standards Test (CST) scores. Come talk about thinking outside the box to help our at-risk students.
6-8 | INT | 210 | Saturday, $9: 30-10: 30$ | Asilomar, Curlew

Goularte, Renee - Teacher, Thermalito Union SD
Giant Story Problems: Visualizing the Language of Math
Address story problems from the perspective of visual literacy using collaborative problem-solving activities which link oral and written language, pictures, numbers, and mathematical symbols. Focus on math vocabulary to help students determine successful problemsolving strategies and learn to communicate those strategies to others. Especially useful for visual learners, English language learner students and math intervention, these strategies can also be easily extended for high-achieving students.
PK-5 | INT | 444 | Saturday, 1:30-3:00 | PG Middle School, Rm 25
Co-presenter: Sharon Bloomingcamp — Retired Teacher
Greco, Jim - Education Administrator Mathematics and Science Leadership Office, California Dept of Education

## Common Core California Standards

On August 2, 2010, the State Board of Education adopted new California standards. Attend a California Department of Education presentation on the Common Core California Standards. Learn about why and how they were developed, how they are different, and next steps for California.
GI | PRS | 114 | Saturday, 8:00-9:00 | Asilomar, Surf \& Sand
Co-presenter: Tony Quirarte - Education Programs Consultant, California Dept of Education

Grzegorczyk, Ivona - Mathematician, CSU Channel Islands Fun in Algebra Class!
Hands-on workshop introducing classroom-ready fun activities as supplementary instructions addressing diverse modes of learning algebra. Topics include solving equations, inequalities, factoring, graphing, problem solving, exponentials and logarithms. We will present: games, art projects, videos, animal characters, poetry. Assessment shows improvement of content understanding and involvement for learners on all levels.
6-12 | WkS | 441 | Saturday, 1:30-3:00 | PG Middle School, Rm 21Lab | \$

## Guzik, Randy - Math Teacher, Pacifica HS, Oxnard Union HSD

 Building a Winning AP Calculus TeamBuilding a winning AP Calculus team requires organization, motivation, and technique. Using a team approach, we will discuss ways to coach our AP students so that they are prepared for the "big game".
8-C | FG | 150 | Saturday, 8:00-9:00 | PG Middle School, Rm 32
Gwaltney, Melissa - Math Teacher,
Anderson New Technology HS, Anderson Union HSD
How to Make "Extra-Credit" a Meaningful Learning Experience
I discovered last school year how to make extra-credit a valuable learning experience. I want to share with you how to use it to maximize its potential for making it a valuable learning experience. I also have been known to use this method for those perpetually absent students who lose classroom time. I use this in my teaching of Pre-Algebra to Calculus classes. You will leave with some PDFs to use right away.
8-12 | INT | 236 | Saturday, 9:30-10:30 | PG Middle School, Rm 7

Hamo, Matthieu — Teacher, Glenoaks ES, Glendale Unified SD Standards-Based Mini Projects for All
Differentiate and motivate with easy-to-implement, standards-based math projects that all your students can successfully do on their own. Come join an interactive session where you will learn how to incorporate practical and meaningful projects into your math program effectively. These projects can be adapted to meet the needs of any student in grades 3-8, and a handout with complete directions will be provided to help you get started right away. 3-8 | INT | 314 | Saturday, 11:00-12:00 | Asilomar, Surf \& Sand | BT

## Hirsch, Maria - Retired, UCLA Math Project; TODOS Montebello USD

## Practical Solutions to Make Math Accessible to All Learners

What obstacles do English learners students face when learning math? What about strategic and intensive level students? Special needs? How do we bring all the pieces together? The diversity of learning styles requires a variety of teaching methods. Practical ideas, such as organizers, foldables, interactive worksheets, motivating activities, and more will be highlighted and shared. Participants will receive techniques and strategies that were tested in the classroom. Student samples will also be available.
6-8 | INT | 546 | Saturday, 3:30-5:00 | PG Middle School, Rm 27
Co-presenter:Lenie Galima - National Board Certified Teacher; TODOS; UC Los Angeles Math Project, Schuurr HS

Ho, Alice - Pedagogical Research Specialist,
Math Teach (Singapore)

## Key Factors to Singapore World-Class Mathematics System

Learn how and where to access Singapore Curriculum/Resources so as to achieve excellence in students' performance using a unique identity derived from the Ministry of Education's CPA Approach. We will share the key factors that lead students to continued success. Participants will appreciate the beauty and power of a five ColorCoded Communicator, which has helped countless students to learn basic to in-depth mathematics concepts without fear or tears. Tchr Ed | PRS | 139 | Saturday, 8:00-9:00 | PG Middle School, Rm 12 | \$

Holman, Lynda - Math Coach, Marietta City Schools, Marietta, GA
Graphs: More Than Pretty Pictures
Students need to collect, organize, and display information in meaningful ways that help them make sense of the world around them. Graphs should help students compare and analyze the information that occurs in classroom and real-world experiences. The session will include lessons and activities that teachers can take back to their classrooms and use Monday.
3-5 | WkS | 251 | Saturday, 9:30-10:30 | PG Middle School, Rm 33
Hunter, Kelley — Math \& AVID Teacher, Windsor MS, Windsor Unified SD
Math Intervention: Ideas That Work!
Create an Intervention class that addresses students' needs, keeps students accountable, and is positive, engaging, and effective. Ideas from this workshop can easily be modified for various grade levels. 6-12 | PRS | 502 | Saturday, 3:30-5:00 | Asilomar, Kiln

Jacobs, Harold — Teacher, Grant HS, Los Angeles USD Mathematical Snapshots of 2010
How to pull your students into your lessons by means of surprising and timely examples that everyone can enjoy-a new talk in a continuing series that began at Asilomar in 1971. It will present ideas that can be used to motivate the review of old concepts as well as the introduction of new ones. Participants will receive a CD of the talk so that they can prepare transparencies for use in their own classroom. GI | PRS | 401 | Saturday, 1:30-3:00 | Asilomar, Fred Farr Forum
Jalalpour, Kathleen — Math Teacher, The Pi Project, Palo Alto Singapore Math: An Overview
Experience the advantages of Singapore Math in an interactive session, including number sense activities, mental math, and examples of word problems using model-building. Singapore Math provides a strong math foundation for all your students-from the fastest learners to those who are overwhelmed and frustrated with algorithm-based curriculums. Come learn more about this worldclass math program!
PK-5 | INT | 416 | Saturday, 1:30-3:00 | Asilomar, Nautilus East
Co-presenter: Corrinne Khoo-Lieu — Math Teacher, The Pi Project
Kalman, Richard - Executive Director Emeritus, Math Olympiads Math Contests Build Better Students (and Teachers) Nine Ways
Mathematics contests prepare both students and teachers exceptionally well for assessment tests. We'll discuss the reasons why and sample five rich problems. You'll leave with an additional 53 Math Olympiad problems to use with your students.
3-8 | PRS | 144 | Saturday, 8:00-9:00 | PG Middle School, Rm 25 | BT
Co-presenter: Nicholas Restivo - Executive Director, Math Olympiads
Are You Smarter Than a 5th Grader ( $\mathbf{2 0 1 0}$ edition)?
These five authentic Math Olympiad problems were given to about 40,0005 th graders last year. Can you solve them? I bet you're as good as the average 5th grader! Attendees will get another 50 problems (yes, solutions included!) to use with your students to help prepare properly for high-stakes testing.
3-8 | INT | 244 | Saturday, 9:30-10:30 | PG Middle School, Rm 25 | BT
Co-presenter: Nicholas Restivo - Executive Director, Math Olympiads
Kirley, Kim — Kindergarten Teacher, Park School, Mill Valley SD Building Number Sense in the K-1 Classroom
Build students' number sense as you go about your day. Small adaptations in routines, games, charts and projects help kids deepen their mathematical understanding. I'll share easy, fun and cost-free ideas that can be used with any curriculum.
PK-2 | PRS | 417 | Saturday, 1:30-3:00 | Asilomar, Nautilus West
Kise, Jane - Principal, Differentiated Coaching Associates, LLC Differentiated Coaching: Every Teacher Helping Every Student
Differentiated coaching capitalizes on teacher strengths to help them transform their classrooms. Learn how to use a neutral framework to uncover teacher beliefs, provide differentiated evidence to change those beliefs, and adopt coaching roles that meet teacher learning styles so that coaching practices model how teachers can differentiate mathematics instruction. Understand how the same framework can help teachers better understand the learning needs of each child.
Ldrshp | INT | 440 | Saturday, 1:30-3:00 | PG Middle School, Rm 13

Kriegler, Shelley - Program Director, Center for Mathematics and Teaching
Making Sense of Slope and the Linear Function
Participants will experience games and classroom-ready activities that develop the concept of slope and the slope-intercept form of a linear function.
6-12 | INT | 209 | Saturday, 9:30-10:30 | Asilomar, Marlin | \$
Kysh, Judith - Associate Professor, San Francisco State Univ Performance Assessment as Support for Preservice Teachers
For the past two years our credential students have been required to pass the Performance Assessment for California Teachers (PACT). This session focuses on ways the use of this assessment has affected credential candidates' implementation of research-based materials and teaching methods. Changes we have made in our program and examples drawn from student responses to assignments in the curriculum and instruction courses will be used as discussion starters for an interactive session.
Tchr Ed | INT | 509 | Saturday, 3:30-5:00 | Asilomar, Marlin
Lambertson, Lori - Staff Educator, The Exploratorium Geometry in Playgrounds
Come explore the geometry of playgrounds! These activities were developed in conjunction with the Exploratorium's NSF-funded Geometry Playground exhibition. Designed for use in generic parks, playgrounds, and schoolyards, we'll make measuring tools to use outside where we'll make measurements, identify and draw shapes, compare shape attributes, explore networks, and play some games. In the event of rain, we'll make indoor adaptations.
3-8 | WkS | 536 | Saturday, 3:30-5:00 | PG Middle School, Rm 7
Lane, Deborah - Math Team Assistance,
Educational Service District 113 (adjunct faculty) Math Intervening: Lessons Learned
What do we know about math intervening with second through sixth graders? One district's journey shared for coaches, RTI leaders and instructors. This session will look at what was learned during a six month analysis of mathematics intervening in a large district. Variables that affected students' achievement were things about the: students, instructor, and program. Rubrics were developed to keep gathering data consistent. I will share common disconnects for students and problems of practice for instructors. As a group we will grapple with,"'how do we monitor our students' progress and our own practice?"
PK-5 | INT | 208 | Saturday, 9:30-10:30 | Asilomar, Toyon
Latulippe, Christine - Assistant Professor of Mathematics, California State Polytechnic Univ, Pomona
Improving Achievement Through the Power of Number Sense
When considering success inside and outside of the mathematics classroom, number sense and estimation are skills from which all of our students can benefit. Strong number sense skills can be applied to standardized tests, every day life, and mathematical problem solving. This session will include research-based strategies and activities to promote fluency with number sense and estimation for middle grades students.
6-8 | INT | 146 | Saturday, 8:00-9:00 | PG Middle School, Rm 27

Leinwand, Steven - Principal Research Analyst, American Institutes for Research
Glimpses of Instructional Excellence
There is so much that we all can learn from observing our colleagues and discussing our observations. A videographer and I had the opportunity to observe and videotape one complete lesson taught by each of the 30 middle school teachers in a courageous school district. This session will use video vignettes from these lessons and a Video Observation Protocol to explore the issues of making collegial observations and video reviews both safe and productive. There will be lots to reflect on here.
GI | PRS | 253 | Saturday, 9:30-10:30 | PG Middle School, Auditorium
Lim, Brian - Professor, CSU Sacramento
Instructional Strategies to Increase Cognitive Complexity
We will be looking at the instructional strategy of integrating topics which helps students make connections between topics as well as looking at the instructional strategies to help students develop procedural flexibility and strategic thinking.
8-12 | PRS | 108 | Saturday, 8:00-9:00 | Asilomar, Toyon
Loew, Robert — Teacher, Foothill HS, Pleasanton Unified SD Student Signaling Systems
Here is a neat piece of classroom technology that galvanizes student interest and motivates their participation in class activities. Student signaling systems involve the use of hand-held devices by students to respond to questions/topics posed by the teacher. Responses are tabulated and displayed in real time, giving instant feedback to students and allowing teachers to shape and guide the ensuing discussion. Never fails to get students involved.
Ldrshp | INT | 104 | Saturday, 8:00-9:00 | Asilomar, Oak Shelter | \$
Lutz, Michael - Associate Professor Mathematics, CSU Bakersfield

## CAMTE Business Meeting

This is the California Association of Mathematics Teacher Educators (CAMTE) annual business meeting. The meeting is open to all CAMTE members and any CMC members interested and involved in mathematics teacher education, pre-service or in-service. In addition to business items related to the organization, we will discuss issues of interest to mathematics teacher educators and develop priorities for the next year of work within the organization.
Tchr Ed | PRS | 309 | Saturday, 11:00-12:00 | Asilomar, Marlin
Mackenzie, Christopher — Math \& Physics Teacher, Paloma Valley HS, Perris Union HSD
Algebra Using Dynamic Illustrations on Excel Spreadsheets
Engage students with dynamic algebra illustrations at no charge. Students will appreciate instant dynamic algebra comparisons in motion. A short mouse motion will cause the graph to change shape and initiate student conversation and stimulate interest. You will receive spreadsheet tools for class use and for student use. You will also receive instructions to make your own lively illustrations. Learn to generate multiple problem sets for practice and quizzes. From fractions through Algebra II.
8-C | PRS | 133 | Saturday, 8:00-9:00 | PG Middle School, Rm 4 | BT

Malankowski-Smith, Blanche - Math Specialist, WCCUSD (retired)

## Every Number Wants To Be a Ten or a Close Relative

Ah, if they only knew their facts. Addition and subtraction strategies have been around for a very long time. So why are they still counting on their fingers, sometimes well into junior high? A grade one standard but perhaps we need to look at what to do in grades K-2. This workshop will help teachers weave into their already full curriculum a systematic way to have students memorize their facts. Games, ready to go materials included.
PK-2 | INT | 504 | Saturday, 3:30-5:00 | Asilomar, Oak Shelter | BT

## Manderscheid, Darrell — Retired, Garden Grove USD <br> Level the Algebra Playing Field by Teaching Fractions

Beginning algebra and pre-algebra students that do not understand fractions cannot compete equitably with those that do. Many students "learned" fractions as a process that emerged from the numbers of arithmetic, but never really grasped the conceptual basis of the topic. In this session we will explore ways to teach the underlying concepts of fractions using familiar algebraic properties. Students' fear of rational expressions will be diminished as they strengthen their algebra skills.
6-12 | PRS | 204 | Saturday, 9:30-10:30 | Asilomar, Oak Shelter

## Manderscheid, Marilynn — Resource Specialist, Plavan ES, Fountain Valley SD

Visual, Auditory, and Kinesthetic Cures for Scrambled Brains
Participants will learn and practice specific tactics to facilitate equitable learning of content standards. Strategies include studentmade manipulatives, instant assessment for more efficient instruction, language to enhance understanding, and total student participation that engages and reveals individual mastery. Individual problems addressed. Handout available.
3-5 | WkS | 515 | Saturday, 3:30-5:00 | Asilomar, Triton
Martin, John - Teacher, Santa Rosa Junior College, Santa Rosa
A Piece of Pi
Through the ages, the ratio of the circumference of a circle to its diameter, which we call $\pi$ has fascinated mathematicians and nonmathematicians alike. In this presentation we will explore the history, mysteries, and controversies surrounding this famous number. 8-C | PRS | 339 | Saturday, 11:00-12:00 | PG Middle School, Rm 12

Mason, Pam — Professor, Harvey Mudd College, Claremont Effective Practices in Algebra That Create Success for All
Experience the enthusiasm and creativity of the Math for America Los Angeles Fellows. Their highly engaging activities and instructional strategies will help enhance student achievement and success in Algebra I and II.
8-12 | INT | 242 | Saturday, 9:30-10:30 | PG Middle School, Rm 22Lab
Co-presenter: Marla Mattenson - Teacher, Helen Bernstein HS

## NAME BADGES!

Name badges must be worn at all times while attending the conference. Badges are required for entry into the sessions and the exhibit halls.

Mathurin, Andre - Teacher, Bellarmine College Preparatory San Jose
Ways to Naturally Revisit Geometry Proofs in Algebra Class
Competent algebra students know that you can tell whether or not two lines are parallel by comparing their slopes, but how many of these competent algebra students can communicate how equal slopes connect to geometry-based tests for parallel lines? What about doing this for perpendicular lines? This session will highlight numerous natural connection points for up-keeping your students' geometry skills.
8-12 | INT | 246 | Saturday, $9: 30$ - 10:30 | PG Middle School, Rm 27
Matsumoto, Brandon - Math Teacher,

## Pinkerton MS, Elk Grove Unified SD

From Multiplication to Factoring: Strategies for Factoring
In this session we will demonstrate how to move students from basic multiplication to factoring polynomials. These strategies have proven to be highly effective with all learners including ESL and special education students. Teachers will receive not only training on how to teach factoring but lessons and worksheets that can be used immediately to improve instruction and student performance.
6-12 | INT | 337 | Saturday, 11:00-12:00 | PG Middle School, Rm 10 | BT
Co-presenter: Mark Freathy - Math Teacher, Pinkerton MS
McDonald, Bob - Math Teacher,
Marc T. Atkinson MS/TODOS, Cartwright Elem SD
The Importance of Language, Culture and Power in Mathematics
Equity in mathematics is somewhat like the weather. We talk about it, but what do we do about it? Through the use of a jigsaw approach, we will first learn about the experiences of people who were speakers of the non-dominant cultural language. We will then participate in BARNAGA, a simulation that will help us experience what it is like to be unable to communicate with those around us. Finally, we will examine and discuss the culture of power.
GI | INT | 439 | Saturday, 1:30-3:00 | PG Middle School, Rm 12
McGuire-Paulson, Nancy - Teacher,
San Marcos MS, San Marcos Unified SD
Fun Factoring: Strategies that Make Sense to All Students!
All students can be successful using strategies from this handson workshop. Participants learn unique, multiple representation strategies, and motivating games, using multi-sided dice and cards, for prime factoring and for factoring fractions to find LCM and GCF. Students learn to view and decompose numbers in a "different" way; one that leads to success in algebra and higher mathematics. Strategies are extended for factoring of polynomials, quadratics and finding square roots.
3-8 | WkS | 245 | Saturday, 9:30-10:30 | PG Middle School, Rm 26 | BT
Level the Playing Field for All Using Math Games!
Using math games as a teaching strategy provides teachers with tools to motivate all students, especially those who struggle with math.
The curriculum becomes available to all students using these games centered around soccer, baseball, basketball, and football. All students get a chance to score while refining fundamental skills with algebra, integers, fractions, decimals, basic operations and more! Put on your game face and be prepared to play!
6-12 | WkS | 544 | Saturday, 3:30-5:00 | PG Middle School, Rm 25 | BT

McLean, Peggy — Math Specialist, The Nueva School It's a Tangram World
Working with this unique puzzle facilitates understanding of geometric shapes, congruent shapes, similar shapes, and size of angles. Making a set develops understanding of fraction-decimalpercent concepts. Building the world develops understanding of the relative size of continents. Playing games and solving puzzles strengthen math concepts.
3-5 | WkS | 336 | Saturday, 11:00-12:00 | PG Middle School, Rm 7
McNamara, Julie - Education Specialist, Math Solutions Beyond Pizzas and Pies: Supporting Fraction Sense
Fraction sense is tied to common sense. Students with fraction sense can reason about fractions and don't apply rules and procedures blindly; nor do they give nonsensical answers to problems involving fractions. Helping students develop fraction sense is an essential foundation for preparing them to compute on and with fractions. We will explore common student dilemmas and share activities from the book, Beyond Pizzas and Pies: 10 Essential Strategies for Supporting Fraction Sense.
3-5 | INT | 234 | Saturday, 9:30-10:30 | PG Middle School, Rm 5 | \$
Meyer, Dan - Doctoral Candidate, Stanford Univ Math Curriculum Makeover
Our students like to solve problems they have already seen. They like seeing steps laid out in the text of a problem. They are impatient with new problems. To what extent does our adopted math curriculum encourage this impatience? How can we improve it? We will define the tools and skills of the modern curriculum designer, someone who can convert any interesting thing into a challenge for his or her students. We will emphasize the multimedia and modern technology essential to that role.
GI | INT | 202 | Saturday, 9:30-10:30 | Asilomar, Kiln | BT
Miller, Jim - Teacher, Cle Elum Roslyn HS

## The Power of One in Teaching Fractions

Losing 'one' loses students. If you are struggling to help your students really understand fractions, try this approach. It is simple and the students construct their own knowledge (with your guidance.) Come prepared to think!
6-8 | INT | 537 | Saturday, 3:30-5:00 | PG Middle School, Rm 10
Co-presenter: Dr. Virginia Erion
Miller, Lisa - Math Coach/Leader,
Napa HS, Napa Valley Unified SD
Working Together to Provide Opportunities for All Students
How can we use the Professional Learning Community (PLC) process to provide opportunities for high levels of achievement for all students? Using a current example, learn realistic ways to get teachers to work together to look at essential learnings, develop common assessments, use data to form instruction, and examine what to do when students don't learn. We'll focus on how to overcome obstacles. Teachers will be given concrete examples and templates to use as tools to get a functioning PLC started.
GI | PRS | 535 | Saturday, 3:30-5:00 | PG Middle School, Rm 6

Moore, Sara - Director of Mathematics \& Science, ETA/Cuisenaire
Algebra for All: Engage Students and Ensure Understanding
As more take Algebra I earlier, teachers face new challenges helping these students find success. This session will share strategies for keeping students actively engaged in learning math, connecting algebra to prior mathematical knowledge, and developing understanding through implementation of a manipulative-based learning cycle from concrete to representational to abstract. Learn to mix technology, hands-on tools, and traditional algebra content and skills to find success for every child.
6-12 | INT | 205 | Saturday, $9: 30-10: 30$ | Asilomar, Evergreen | \$
Virtual Manipulatives? What Does Hands-on Really Mean?
Manipulatives have a long history of success in teaching and learning. Now interactive whiteboards and virtual manipulatives are in our classrooms too. Learn to use these new technologies along with traditional concrete manipulatives for effective math teaching and learning. When is technology best? When do students still need hands-on resources of their own? See the technology in action; learn strategies for incorporating it into your own class even before the hardware comes to your room.
3-8 | INT | 405 | Saturday, 1:30-3:00 | Asilomar, Evergreen | \$
Morris, Kathy — Associate Professor, Sonoma State Univ Powers of Art: Multiplication for Middle Grades
Inspired by Warhol \& Mondrian, learn to visualize multiplication through art! Cut, glue and paint your way through a variety of art projects that develop conceptual understanding for middle grades' multiplication. Aesthetic representations illustrate different mathematical models, emphasizing the commutative, associative, and distributive properties, as well as exponents. This hands-on session will enliven and enrich your math teaching! Non-artists are especially welcome!
3-8 | WkS | 514 | Saturday, 3:30-5:00 | Asilomar, Surf \& Sand
Co-presenter: Gena Richman - Teacher, Petaluma City Schools

## Moskowitz, Stuart - Mathematics Educator,

Humboldt State Univ
Two Birthday Parties in One Day? Problem Simulations on TI-Nspire ${ }^{\odot}$
The results of the Birthday Problem are counter-intuitive; most people are surprised at how few people it takes to find matching birthdays. We'll explore this with a TI-Nspired probability simulation that is accessible to middle and high school students. Then, we'll extend the Birthday Problem to ask: Are four digits enough? When your teacher posts only the last four digits of everybody's SS\#, what's the chance that two will be the same?
8-C | WkS | 207 | Saturday, $9: 30$ - 10:30 | Asilomar, Acacia | \$
Co-presenter: M. Edwards - Mathematics Educator, Miami Univ

## PROGRAM CHANGES

Although this book contains the latest information available as of the printing deadline, some last-minute changes are inevitable. We apologize for any inconvenience that may result, and we appreciate your understanding.

Muller, Eric - Science/Math Educator, Exploratorium Teacher Institute
Exposing Exponents: Really Big and Small Numbers in Science Math is used all the time in science. Often the numbers collected (data) or calculated can only be used practically in exponential form. Join us for a workshop of exploration and application of exponents in science. From earthquakes to outer space and from atoms to light, participants will engage in a potpourri of science activities from The Exploratorium Teacher Institute. Activities presented are rich in content, simple to assemble, and are created with easily obtainable and cheap materials.
8-C | INT | 540 | Saturday, 3:30-5:00 | PG Middle School, Rm 13
Murray, Tom — Math Consultant/Facilitator, San Mateo-Foster City SD

## How Likely Is It? Probability Games of Fun and Chance

Probability is one of the most exciting and motivating math standards to investigate. Come join the fun as we explore a wide range of hands-on games and activities from a variety of sources. Our examination of this fascinating concept will include the use of dice, spinners, coins, and more. Through these activities students will learn how to interpret graphs, make predictions, and analyze data. Connections to other areas of the curriculum, and challenges for gifted students will be discussed.
3-8 | WkS | 451 | Saturday, 1:30-3:00 | PG Middle School, Rm 33
Neufeld, Rudy - Author/Consultant, Thames Valley/Neufeld Learning Systems Inc.

## Teach, Don't Tell: Understand, Don't Memorize

Teachers hold the key to improving student learning and achievement and hence the equity in mathematics. They must know "mathematics for teaching" in order to make mathematics accessible to all. We will share strategies from school projects (American, Canadian, Australian) in which teachers "teach rather than tell", in order to get students to "understand rather than to memorize" concepts of fractions, decimals, measurement, and algebraic thinking Get a CD of ON and OFF computer material.
3-8 | WkS | 141 | Saturday, 8:00-9:00 | PG Middle School, Rm 21Lab | \$
Build It, Draw It, Write It, Talk It...Own the Equity!
Engage students with a wide range of ability levels and learning styles with technology. We will use hands-on computer activities to build student confidence and understanding using interactive software along with high-yield instructional strategies in a variety of instructional settings. Participants will examine how to apply this student-centered, interactive approach to a variety of concepts including whole numbers and fractions. Participants will receive a CD for classroom use.
3-5 | WkS | 241 | Saturday, 9:30-10:30 | PG Middle School, Rm 21Lab | \$

Novelli, Barbara - Instructor, George Fox Univ
Stirring Up Place Value Understanding and Success
Place value can become a major road block for our students' confidence and competence in mathematics. Understanding place value helps students make the important connections to decimals and percentages. Barbara will share many strategies, activities and games which will help your students develop long lasting understandings related to place value.
3-5 | INT | 303 | Saturday, 11:00-12:00 | Asilomar, Heather | BT
Mixing Up Math Success for All Learners
The key ingredient to math success for all is to diversify instruction. This session will be filled with a mixture of games, songs, math/ science investigations and great literature. Barb will share a planning template which will help you support all your students in being successful mathematicians.
PK-2 | INT | 403 | Saturday, 1:30-3:00 | Asilomar, Heather | BT
Olkin, Julia - Assistant Professor, CSU East Bay What's Holding This Up? Using Underlying Math Structures Is this a new problem or is there a structure underneath here somewhere? Strengthen students' ability to identify the underlying mathematical structure in a problem. Taking advantage of this structure can ease the solution process, and sometimes is the only way to solve a problem. We will learn how the same parent structure can be used to add cognitive complexity. We will create classroomready activities for your subject of interest: Algebra I/II, Geometry and Pre-Calculus.
8-12 | INT | 433 | Saturday, 1:30-3:00 | PG Middle School, Rm 4
Co-presenter: Lilian Metlitzky — Professor, CSU Pomona
Pernin, Patricia - Coordinator, Los Angeles Unified SD
Enhancing Collaborative Workgroups Through Targeted PD
For more than 25 years, educators have struggled to build the capacity of teachers to deliver standards-based K-12 mathematics instruction that meets the needs of all students. During this interactive session, we will identify the key instructional and professional development strategies, including collaborative teacher-led groups, leading to increased student achievement in K-12 mathematics.
Ldrshp | INT | 135 | Saturday, 8:00-9:00 | PG Middle School, Rm 6
Petersen, Bob - Assistant Director, Mentor Teacher, CPM Educational Program
Algebra Connections: All Students Can Learn Algebra
This session will demonstrate problem-based, student-centered lessons written for use with collaborative learning teams. Learn how to use structured student roles, multiple representations of ideas, and questioning strategies that draw out contributions from all students. Every student is smart-the task is to give them opportunities to show how. Based on the CPM Algebra Connections (Algebra I) Program.
8-12 | WkS | 215 | Saturday, 9:30-10:30 | Asilomar, Triton | BT | \$

## CONFERENCE EVALUATION FORM

Evaluation (pg 41) returned during the conference will be entered in a drawing for FREE conference registration and on-grounds housing for next year. The winners for this year's free registration and housing are Kimberly Kirley and Katie Sutton.

Petrak, Cliff — Teacher Emeritus,
Brother Rice HS, Chicago, IL. (retired)

## Don't Slow Me Down with that Calculator, Part 1

Learn to master a multitude of little-known, super shortcut computational techniques along with their derivations involving addition, subtraction, fractions, squaring and multiplication that will leave your calculator-dependent friends in the dust. (Attend session \#542 at 3:30 p.m. for squaring and multiplication-related techniques.) 3-8 | PRS | 137 | Saturday, 8:00-9:00 | PG Middle School, Rm 10

## Don't Slow Me Down with that Calculator, Part 2

Learn to master a multitude of little-known, super shortcut computational techniques and strategies involving squaring and multiplication that will leave your calculator-dependent friends in the dust. (Attend session \#137 at 8:00 a.m. for addition, subtraction and fractions-related techniques.)
3-8 | PRS | 542 | Saturday, 3:30-5:00 | PG Middle School, Rm 22
Picciotto, Henri - Math Dept Chair,
The Urban School of San Francisco
Escape from the Textbook! Sharing and Collaboration Network
Almost every off-book activity we plan is well received and leads to greater interest and motivation. Freeing ourselves from set-in-stone curricula allows us to respond to the realities of our classrooms, tackle heterogeneous classes, and implement cooperative and hands-on learning. However pressures of coverage, lack of time, and isolation can undermine our efforts. Join an online and in-person network to help each other escape from the textbook for a lesson, a unit, or an entire course.
6-12 | PRS | 317 | Saturday, 11:00-12:00 | Asilomar, Nautilus West
Co-presenter: Carlos Cabana - Teacher, Mission HS
Preston, Robert — Math Coach, McManus ES, Chico Unified SD Room for Alternative Algorithms: Multiplication \& Division
Many students struggle with multiplication and division, particularly involving multi-digit numbers. As a 6th grade teacher, I have routinely used alternative algorithms to increase student understanding of the big four operations; addition, subtraction, multiplication, and division. This session will follow the pedagogical model used with students (focus is on multiplication and division, starting concretely and slowly moving towards the abstract), in their search for understanding. 3-8 | WkS | 550 | Saturday, 3:30-5:00 | PG Middle School, Rm 32 | BT

Raff, Cynthia - Center for Mathematics and Teaching, Inc. Making Sense of Integer Operations
Help your struggling students understand integer operations by using familiar contexts and a model. Learn how to create bridges to understanding between concrete thinking and abstract ideas associated with integers.
6-8 | WkS | 533 | Saturday, 3:30-5:00 | PG Middle School, Rm 4
Ramos, Jeanne - Math Supervisor,
South Gate HS, Los Angeles Unified SD
Making Mathematics Accessible for All Students:
Focus on English Language Learners
This session will focus on the use of specific strategies to increase English learners' access to rigorous mathematics tasks, while developing their academic language proficiency.
6-8 | INT | 131 | Saturday, 8:00-9:00 | PG Middle School, Rm 1 | BT

Resek, Diane - Professor Emerita, San Francisco State Univ Developing Deductive Thinking Before High School
We often move from the concrete to the representational to the abstract in teaching arithmetic, so let's try that with deductive thinking. The session will feature work on problems requiring deductive thinking. Some are best solved with concrete objects; others with charts; and others need written explanations. 3-8 | INT | 445 | Saturday, 1:30-3:00 | PG Middle School, Rm 26

Ritchie-Reese, Patricia — Math Instructor, Sierra College String Polyhedra with a Twist: A Make-It, Take-It Session
Come make polyhedra using straws and elastic thread that allow the shapes to twist and flex. You will be amazed at how you can transform a 3-D shape into a 2-D shape or into other 3-D shapes hidden inside the original. Each year many participants return to create new polyhedra to take home and explore! There will be many wonderful student samples, showing student-group investigations into various areas of polyhedral properties. The possibilities are endless! GI | MITI | 430 | Saturday, 1:30-3:00 | PG Middle School, Library

Roddick, Cheryl - Associate Professor, San Jose State Univ Using the Singapore Bar Model to Solve Word Problems
The Singapore Bar Model is a helpful way to approach a variety of word problems in elementary school through algebra. Students can learn to use bar models to help them make sense of the problems, come up with algebraic equations (if needed), and guide them throughout the solution process. The bar model is the missing link between the concrete and symbolic representations. It has become a valuable teaching technique to reach a variety of learners! 3-8 | INT | 217 | Saturday, 9:30-10:30 | Asilomar, Nautilus West | BT Co-presenter: Christina Silvas-Centeno - Math Curriculum Specialist, San Jose Unified SD

Rogers, Paul - Math Teacher, MIT Academy, Vallejo City Unified SD

## Smartboards for Dummies

I am not now, nor have I ever been in the employ of an interactive white board company. I have been a teacher for 30 years. I'm still a teacher and the thing I want to be when I grow up is a good teacher. When I started teaching I learned to run a ditto machine and now I'm learning the Smartboard. I will share the good things I have found using this technology and encourage others to share their own experiences. A disk of the items will be given to those heroic enough to last out the hour.
6-12 | PRS | 235 | Saturday, $9: 30$ - 10:30 | PG Middle School, Rm 6 | \$
Romanek, Brenda - Math Teacher, Arroyo Valley HS, San Bernardino City Unified SD

## Powerful Problem Solving: Functions in Algebra II

Participants will experience several activities concerning functions in an Algebra II class. These will include using a human graph to explore functions, domain and range, and asymptotes. There will be a function carousel, silent board game and some team problems to work on involving graphs of parabolas, hyperbolas, exponentials, absolute value, and logarithms. Teachers will receive ideas and materials that they can use in their own classrooms.
8-12 | WkS | 507 | Saturday, 3:30-5:00 | Asilomar, Acacia

Rossi Becker, Joanne - Professor Mathematics Education, San Jose State Univ
Math Specialist Credential: Creating CA Programs
The California Commission on Teacher Credentialing (CCTC) will promulgate new elementary math specialist program guidelines this year. Come to hear details of requirements from a member of the math panel that developed recommendations to the CCTC, and share with others ideas of how to build a program from existing coursework at your university to meet new requirements. Please bring any preliminary work already done at your institution to share. Plenty of time will be allotted for participant discussion.
Tchr Ed | PRS | 409 | Saturday, 1:30-3:00 | Asilomar, Marlin
Co-presenter:Kathy Morris — Professor Mathematics Education, Sonoma State Univ

Sarcona, Lisbeth - Math Support Teacher, Chapman ES, Chico Unified SD

## Strategies for Discussion and Writing in Mathematics

What are your students really thinking about math? Learn about ways speaking and writing can strengthen and clarify students' math knowledge. The focus will be on promoting the use of academic language by both the teacher and the student and on developing a classroom climate that includes discussion and sharing of mathematical thinking orally and in writing. The importance of enhancing clarity and accurate academic language for all students, especially English learners, will be discussed.
3-5 | INT | 436 | Saturday, 1:30-3:00 | PG Middle School, Rm 7
Co-presenter: Katy Early — Math Specialist, CSU Chico
Selby, Victor - Author/Curriculum Consultant-Math/Science Integration, Carmel HS (retired), Carmel Unified SD
Game Theory: Building a Universal Conceptual Model
Enrich units on probability and proof by including the mathematics of competition and cooperation. Use topics from game theory to motivate and provide model building experience in Algebra I, Geometry, and Algebra II. Have students write about the connection of games to the human condition, and strengthen their understanding of why mathematics is the language of science. 8-12 | PRS | 305 | Saturday, 11:00-12:00 | Asilomar, Evergreen

## Serra, Michael - Author/PD Workshop Leader, Key Curriculum Press <br> Investigations in Geometry for 2010

Does every pentomino tile the plane? What are all the Archimedean tilings? What is Pick's Formula? What is Origamics? Can you solve some of the challenging geometry constructions needed to design the stained glass windows and tracery of Gothic cathedrals? If any of these are new to you, come join us as we explore some not-so-typical and very cool geometry investigations.
8-12 | INT | 553 | Saturday, 3:30-5:00 | PG Middle School, Auditorium | BT

Shreve, Barbara - Teacher, Author, San Lorenzo HS, San Lorenzo Unified SD

## Developing Linear Relationships

Experience some of the developmental problems that lead to understanding linear relationships. We will use activities from the new CPM middle school program, Making Connections: Foundations for Algebra, Year 2. You will see how the developmental focus is on conceptual understanding that leads to solving proportions, determining the slope of a line, and solving systems of equations.
6-8 | WkS | 344 | Saturday, 11:00-12:00 | PG Middle School, Rm 25 | \$

## Silverman, Sandy — Coordinator, San Diego COE

## Big Math for Little Kids: Sorting and Patterns

Preschool and kindergarten children constantly try to understand their world. Sorting and recognizing patterns are important processes. Learn the developmental sequences and have fun with hands-on activities you can use tomorrow. All activities support California kindergarten standards and preschool learning foundations. PK-2 | WKS | 315 | Saturday, 11:00-12:00 | Asilomar, Triton

Smiler, Helen — National Projects Coordinator, Project SEED The Power of Exponents to Create Mathematical Opportunities Exploring the rules of exponents creates engaging and challenging opportunities for students of all ability levels to develop mathematical thinking and master grade level standards. Experience how starting with exponents can lead you and your students into investigations involving place value, negative numbers, fractions, decimals and algebraic thinking. Learn about Project SEED's interactive, discovery teaching methods that encourage high levels of enthusiasm, participation, and understanding.
3-8 | INT | 248 | Saturday, 9:30-10:30 | PG Middle School, Rm 29
Smith, Keith — Math Program Specialist, Pacent Learning Solutions

## Going Beyond Algorithms for Area of Polygons

This session will use geoboards and graph paper to define area, and establish relationships between finding the area of rectangles, parallelograms, and triangles. Participants will work in teams on a series of area problems as the presenter models strategies for guiding students to engage with increasingly difficult problems. Participants will receive a CD with electronic copies of all materials presented, and will be able to retain any manipulatives used in the session.
3-8 | WkS | 349 | Saturday, 11:00-12:00 | PG Middle School, Rm 31 | BT Co-presenter: Thomas Bjorkman - Math Program Specialist, Pacent Learning Solutions

## ASILOMAR PATHWAYS

Please stay on the paved paths that meander through the grounds or the boardwalks that take you on a delightful journey through the dunes. By keeping people off of the vegetation, Asilomar is able to preserve the natural landscape for all to enjoy for many years to come. You might see some paths that look like walking trails, but if they are not paved, they are simply animal trails created by many hooves walking
the same route through the grounds. Thank you very much for your cooperation.


## Starnes, Daren - Mathematics Department Chair Making Sense of Inference for Sampling and Experiments

The topic of statistical inference comprises about 40 percent of the AP Statistics course outline. In this session, we will explore the issues that make confidence intervals and significance tests so difficult for students. We'll also examine strategies for helping students choose the correct inference method, check required conditions, and write clear conclusions in context. The appropriate use of technology in solving AP exam questions will be discussed, so bring your calculator. 8-C | INT | 307 | Saturday, 11:00-12:00 | Asilomar, Acacia

## Probability and Risk: Increasing Access via Simulation

Probability is more than clever counting rules and fancy formulas. It is a powerful tool for making decisions in the face of uncertainty. In this session, we will use simulation to unravel applications of probability in everyday life. Technology will help us do many trials quickly and confirm our results mathematically-so bring your calculator! 8-12 | INT | 407 | Saturday, 1:30-3:00 | Asilomar, Acacia

Tamez, Modesto - Teacher in Residence, The Exploratorium Integrating Proportions Across the Curriculum
All educated citizens need to know how and when to use proportions. This session will use an activity-based approach to do many sorts of proportional problems. The power of proportions is impressive, with few tools and a little ingenuity we can do very sophisticated calculations. We can go from measuring the diameter of a human hair to calculating the distance between the Sun and the Earth. Proportions transcend math and science. We will also show how to use proportions for our daily life.
6-12 | WkS | 404 | Saturday, 1:30-3:00 | Asilomar, Oak Shelter
Tobes, Jeff — Teacher, Wright Charter School, Wright SD Math and Carpentry for the Young
This session explains and shows how every sixth grader in this inner-city class made a sturdy, cool step stool of which they were proud. It emphasizes measurements and fractions. Handouts will be distributed explaining the supplies necessary, and the schedule and process of actually making a step stool. A photo documentary will be shown and distributed. The students learned and experienced the importance of accuracy, working as a class, that good things take time, and an appreciation of wood and patience.
GI | INT | 534 | Saturday, 3:30-5:00 | PG Middle School, Rm 5

## Tuska, Agnes - Mathematics Educator, CSU Fresno

## Empowering Teachers to Ensure Educational Access to Students

We will discuss the development of teacher leaders in rural areas and in low-performing schools through multi-year intensive collaboration, focusing on lesson study (Supporting Teachers to Increase Retention grant). Highlights will be shared from standards-based, studentcentered lessons that successfully engaged all students in the learning process and from professional development experiences for the teachers.
Ldrshp | INT | 447 | Saturday, 1:30-3:00 | PG Middle School, Rm 28
Co-presenter: Baljit Gill — Mathematics Teacher, Caruthers HS

Vierra, Vicki - Math Specialist, Ventura COE
From Passive Spectator to Productively Engaged
Develop the many facets of adaptive reasoning-thinking logically about the relationships among concepts and situations; considering alternative perspectives, multiple representations and patterns; selecting appropriate procedures to solve contextually accessible problems; and justifying solution decisions.
Tchr Ed | WkS | 505 | Saturday, 3:30-5:00 | Asilomar, Evergreen
Co-presenter: Helen Shimato - Math Consultant, Retired, Westside Union
Walker, Juanita - Elem Math Specialist, Santa Ana Unified SD Building a Bridge from Elementary Mathematics to Geometry
Hands-on activities and strategies will be presented to help the elementary student, including English language learners and those considered at-risk, to master the geometric principles necessary to be successful in higher level mathematics courses.
3-8 | WkS | 539 | Saturday, 3:30-5:00 | PG Middle School, Rm 12
Co-presenter: Barbara Post - CSU Fullerton
Watts, Carleen - Math Teacher,
Regional Occupational Center, Kern High SD
Fractions: For Those Who Need to See It to Believe It
Do your students need to see it to believe it? Help your students develop a conceptual understanding of fractional operations with manipulatives that you already have in your classroom-rulers. 3-8 | INT | 449 | Saturday, 1:30-3:00 | PG Middle School, Rm 31

Wenrick, Melanie - Assistant Professor, CSU Fresno
EEEK! There's a Buggy Algorithm in My Math Class!
What types of strategies do second graders use for multi-digit addition and subtraction? How do your instructional methods and resources (including textbooks) contribute to these correct and incorrect strategies? Using data from student interviews and classroom observations, we will explore instructional solutions to address common errors and misconceptions.
PK-2 | INT | 551 | Saturday, 3:30-5:00 | PG Middle School, Rm 33
Co-presenter: Jean Behrend - Professor, CSU Fresno
West, Rick — Math Instructor, UC Davis
Preparing for Algebraic Success Using Function Machines
Children can recognize patterns at a young age. They can also detect the pattern connecting inputs to outputs of a function machine. Come learn the art of introducing function machines as an accessible challenge for all learners. You'll see how to use function machines to practice basic arithmetic skills, develop a sense of variables and to introduce some basic algebra skills—even simultaneous linear equations! We'll share teaching experiences working with 1st through 6th grade students.
PK-5 | PRS | 304 | Saturday, 11:00-12:00 | Asilomar, Oak Shelter
Co-presenter: Deb Stetson - Project Director \& Instructor,
CSU Sacramento Math Project

## SPEAKER PROPOSALS

Interested in presenting at the 2011 Asilomar Mathematics Conference? Submit speaker proposals on-line by April 10, 2011 at www.cmc-math.org/activities/north_speakers.html

Wilkins, Glenda - Math Teacher, Arroyo Valley HS, San Bernardino City Unified SD

## A Logical Approach to Proofs: All Students Achieve Success

This topic will help your students develop strategies, draw conclusions, think logically, communicate and justify their reasoning. We start with logic games and then develop reasoning for whether a crime has been committed. We will prove triangles similar before proving congruence, therefore moving from the simple to the complex. Flowchart proofs are introduced first and then lead to two-column proofs.
8-12 | INT | 350 | Saturday, 11:00-12:00 | PG Middle School, Rm 32
Winicki-Landman, Greisy
California State Polytechnic Univ, Pomona
Fun and Powerful Geometry Activities for All
In this session several field-tested activities to teach geometry will be implemented. These activities are mathematically rich, standards-based, educationally flexible and super fun! Participants will experience the fun of discovering geometric properties and develop academic vocabulary. Templates of the materials used will be provided and teachers will be able to use them the next day in their own classrooms.
6-12 | WKS | 134 | Saturday, 8:00-9:00 | PG Middle School, Rm 5
Wu, Zhonghe - Associate Professor, National Univ Differentiating Instruction: A Way to Close the Learning Gap Successfully using differentiated mathematics instruction in K-8 classrooms helps close student achievement gaps. This presentation discusses practical instructional methods in the regular classroom to achieve learning goals for five kinds of students: top achievers, average achievers, low achievers, students with special needs, and English language learners. Examples of activities and assessment of learning will be discussed.
PK-5-8 | PRS | 247 | Saturday, $9: 30$ - 10:30 | PG Middle School, Rm 28
Co-presenter: Shuhua An — Professor, CSU Long Beach
Yates, Christl - Teacher, Chico State Research Foundation Reaching All Learners: Math as a Second Language
Teaching math to a diverse population of ELs is challenging. Participate in a modeled interactive geometry lesson as a language learner. Experience the EL strategies and how math content and academic vocabulary can be made accessible to ALL students. Discussion and reasoning for the strategies follows lesson. Strategies presented can be used cross curriculum.
GI | INT | 442 | Saturday, 1:30-3:00 | PG Middle School, Rm 2LLab | BT

## SESSION CAPACITY/SEATING

We have made every attempt to provide adequate seating for participants at the conference. However, to ensure your safety and adhere to fire regulations, the number of participants allowed in each meeting room will be limited to the number of seats approved by the Fire Marshall. Anyone sitting on the floor or standing will be asked to leave the room. Please check the Program Matrix for the seating capacity of each room. All seats are available on a first-come, first-served basis.

Youngs, Dave - Fresno Pacific Univ
Teach Arithmetic Using Algebra for Exponential Learning
Bridge the gap between arithmetic and algebra by using interesting patterns, sequences, and mathematical micro-worlds as you help grades 3-5 students construct an understanding of algebraic concepts like rules, generalizations, functions, equations, and variables.
3-5 | INT | 346 | Saturday, 11:00-12:00 | PG Middle School, Rm 27
Yu, Julie — Staff Scientist, Fresno Pacific Univ
Geometry of Nature: Exploring Patterns, Shapes and Symmetry
Using naturally occurring examples of patterns, shapes, and symmetry can provide context for concepts learned in a traditional geometry class. This workshop will present hands-on activities to explore macroscopic and microscopic examples of geometry in nature. By interacting directly with different phenomena, students can discover how geometry affects our world. Teachers will gain concrete ideas of how to integrate patterns and symmetry from nature into their classes.
6-12 | WkS | 237 | Saturday, 9:30-10:30 | PG Middle School, Rm 10

## Zaccaro, Ed - Author

Five Real-Life Math Investigations that will Astound Students
Gifted children typically are not given the opportunity to see the wondrous side of mathematics because it is often taught as all scales and no music. Help students discover the danger of short-term loans. Hear the true story of how a math mistake led to a commercial jet running out of fuel at 41,000 feet. Learn the surprising answer to how much money a hybrid car will save its owner. These and other fascinating math investigations will allow a student to see the power of mathematics.
6-12 | PRS | 116 | Saturday, 8:00-9:00 | Asilomar, Nautilus East
How We Are Lied To: Cheated and Manipulated by Statistics
Because statistics are based on mathematics, they are very appealing in our evidence-based culture. Unfortunately they are often employed to sensationalize, confuse and make false assertions seem true. In this session you will not only learn several fascinating techniques that are used to manipulate statistics, but you will also learn the power of honest statistics and how they have saved millions of lives.
6-12 | PRS | 216 | Saturday, 9:30-10:30 | Asilomar, Nautilus East
Zahner, William — Doctroal Candidate, UC Santa Cruz
Designing Tasks and Norms for Cooperative Learning with English Language Learners
This hands-on session will bring together research on cooperative learning, principles for designing group worthy tasks, and video case studies to analyze how groups can be used productively in linguistically diverse math classrooms. Participants will collaborate and do a high quality task that they can use with their students. We will close by discussing how other tasks can be designed using similar principles.
6-12 | INT | 231 | Saturday, $9: 30-10: 30$ | PG Middle School, Rm 1

## ASK ME!

Need assistance on the day of the conference? Look for the attendees with "Ask Me" stickers.

Zeller, Erich — Content Specialist, MIND Research Institute The Number Line? Animate it to Teach and Reach
Use the Animated Number Line to build non-language based, visual understanding of number relationships, difference, place value, and multi-digit addition. This interactive session will show how to develop number sense, count money, and show computation through handson activities that use the number line to increase understanding and retention for all students. CD with animations and handouts provided. PK-2 | WkS | 446 | Saturday, 1:30-3:00 | PG Middle School, Rm 27

## Zumwalt, Joan — Math Coach, Tehama CDE <br> Let's Make Junk Sequences

Junk Sequences are just that, a model of a sequence made out of JUNK or whatever you have available around the classroom/home. It might be toothpicks, metal washers, paper clips, pattern blocks, square tiles, pennies, colored chips, elbow noodles or anything that you can glue into a folder to create the sequence. When participating in the activity the students will be asked to create the next figure in the sequence with the JUNK provided and then use multiple representations to find the rule for the sequence. This hands-on approach brings algebraic thinking within the grasp of your students. In this Make-lt, Take-It session you will first experience using the junk sequence folders as if you were a student in the classroom. Then you will be given time and the materials needed to create several of your own junk sequence folders to take home and use Monday in your classroom.
GI | MITI | 530 | Saturday, 3:30-5:00 | PG Middle School, Library | BT
Co-presenter: Hope Bjerke - Math Coach, Tehama CDE


| Conference Notes |
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Sessions at a Glance

| Speaker | Presentation Title <br> （Refer to alpha section for presentation description．） | Target Audience |  |  |  |  |  |  |  |  |
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| Albrecht，Masha | Student Centered Projects to Enrich a Pre－Calculus Class |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |
| An，Shuhua | Using Model－Strategy－Application Approach to Assess Diverse．．． |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Anderson，Jody | Who，What，When \＆How to Assess K－1 Students Efficiently！New！ | $\checkmark$ |  |  |  |  |  |  |  |  |
| Arth，Karen | It＇s All Connected：Similarity as a Geometric Building Block |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
|  | Equity for K－2 Students Through Lesson Study and CG I | $\checkmark$ |  |  |  |  |  |  |  |  |
| Beeman，Bix | Scaffolding a Square $=$ Success＾2 |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
| Bellman，Allan | Differentiation in Your Algebra Class is Easier Than You Think |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
|  | Interactive Learning Objects on a Handheld Device！ |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Beyronneau，Michelle | Accessing Algebra I Through Multiple Representations |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Biehl，L Charles | Empowering Students Outside the Box：Math Behind NUMB3RS |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Bintz，William | Equity or Rigor：Which Comes First？ |  |  |  |  |  |  | $\checkmark$ |  |  |
| Bjorkman，Thomas | Diamond Problems Across the Grades |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
| Blachman，Nancy | Fun Ways to Learn Math Facts：Alternatives to＂Drill and Kill＂ |  | $\checkmark$ |  |  |  |  |  |  |  |
| Boaler，Jo | The Psychological Prisons from Which They Never Escape？ |  |  |  |  |  |  | $\checkmark$ |  |  |
| Bonsangue，Marty | Surprising Problems for Those Not Easily Surprised |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Brady，Victoria | Solar Calendar Geometry－It＇s All Angles！ |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
| Brown，Ron | Rock Your Math Class！ | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |
| Brown Brooks，Gloria | A Math Circle to Foster Equity in the ELL Math Classroom |  |  |  |  |  | $\checkmark$ |  |  |  |
| Brutlag，Dan | Getting Algebra into the Adolescent Brain |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| CadwalladerOlsker，Todd | Making Negatives Tangible Before and During 6th Grade |  | $\checkmark$ |  |  |  |  |  |  |  |
| Cagle，Peg | Building Modular Origami＝Building Spatial Reasoning |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Calahan，Heather | Perspectives on California＇s New Math Standards |  |  |  |  |  |  | $\checkmark$ |  |  |
| Canty，Luana | The Art of Units：Arrays，Areas and Angles |  | $\checkmark$ |  |  |  |  |  |  |  |
| Carlson，Ron | Engage Your Students with Real Data |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Carlyle，Ann | Grids，Games and Arrays | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |  |
| Carpenter，Carrie | Activities for Making Algebraic Reasoning Engaging |  |  | $\checkmark$ |  |  |  |  | $\checkmark$ | $\checkmark$ |
|  | Hot Off the Press！Behind that Math Concept is a Great Story | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |
| Carroll，Cathy | Developing and Supporting Teachers＇Mathematical Knowledge for．．． |  |  |  |  |  | $\checkmark$ |  |  |  |
| Casey，Christopher | Number Sense and the Days of School |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  | $\checkmark$ |
| Chamberlin，Ruth | What＇s Vocabulary Got to Do with Equity in Mathematics？ |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Childs，Leigh | Engaging Activities＋Strategies $=$ Numerically Nimble Students |  | $\checkmark$ |  |  |  |  |  | $\checkmark$ |  |
| Choate，Laura | Effective Games and Practices that Lead to Student Success | $\checkmark$ |  |  |  |  |  |  |  |  |
| Coes，Loring | Picturing Proportions：Visual Tasks for Algebra and Geometry |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Coggins，Debra | Strategies for Supporting English Learners＇Algebra Success |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Cohen，Bruce | An Introduction to Projective Geometry |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |
| Collie，Jamie | Logarithms：Much More Than Just a Button on the Calculator！ |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |

Sessions at a Glance


Sessions at a Glance

| Speaker | Presentation Title <br> （Refer to alpha section for presentation description．） | Target Audience |  |  |  |  |  |  | 䓂 | 宕 |
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|  |  | $\underset{\sim}{\text { ¹ }}$ | n | $\stackrel{\circ}{\circ}$ | च | 毞 | 彭 | Ј |  |  |
| Good，Leslie | Teaching the Standards Through Stories | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |  |
| Goodman－Orcutt，April | At－Risk Students：Technology and Nontraditional Curriculum |  |  | $\checkmark$ |  |  |  |  |  |  |
| Goularte，Renee | Giant Story Problems：Visualizing the Language of Math | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Greco，Jim | Common Core California Standards |  |  |  |  |  |  | $\checkmark$ |  |  |
| Grzegorczyk，Ivona | Fun in Algebra Class！ |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Guzik，Randy | Building a Winning AP Calculus Team |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |
| Gwaltney，Melissa | How to Make＂Extra－Credit＂a Meaningful Learning Experience |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Hamo，Matthieu | Standards－Based Mini Projects for All |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
| Hirsch，Maria | Practical Solutions to Make Math Accessible to All Learners |  |  | $\checkmark$ |  |  |  |  |  |  |
| Ho，Alice | Key Factors to Singapore World－Class Mathematics System |  |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |
| Holman，Lynda | Graphs：More Than Pretty Pictures |  | $\checkmark$ |  |  |  |  |  |  |  |
| Hunter，Kelley | Math Intervention：Ideas That Work！ |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Jacobs，Harold | Mathematical Snapshots of 2010 |  |  |  |  |  |  | $\checkmark$ |  |  |
| Jalalpour，Kathleen | Singapore Math：An Overview | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Kalman，Richard | Math Contests Build Better Students（and Teachers）Nine Ways |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
|  | Are You Smarter Than a 5th Grader（2010 edition）？ |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
| Kirley，Kim | Building Number Sense in the K－1 Classroom | $\checkmark$ |  |  |  |  |  |  |  |  |
| Kise，Jane | Differentiated Coaching：Every Teacher Helping Every Student |  |  |  |  |  | $\checkmark$ |  |  |  |
| Kriegler，Shelley | Making Sense of Slope and the Linear Function |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Kysh，Judith | Performance Assessment as Support for Preservice Teachers |  |  |  |  |  | $\checkmark$ |  |  |  |
| Lambertson，Lori | Geometry in Playgrounds |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Lane，Deborah | Math Intervening：Lessons Learned | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Latulippe，Christine | Improving Achievement Through the Power of Number Sense |  |  | $\checkmark$ |  |  |  |  |  |  |
| Leinwand，Steven | Glimpses of Instructional Excellence |  |  |  |  |  |  | $\checkmark$ |  |  |
| Lim，Brian | Instructional Strategies to Increase Cognitive Complexity |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Loew，Robert | Student Signaling Systems |  |  |  |  |  | $\checkmark$ |  |  | $\checkmark$ |
| Lutz，Michael | CAMTE Business Meeting |  |  |  |  |  | $\checkmark$ |  |  |  |
| Mackenzie，Christopher | Algebra Using Dynamic Illustrations on Excel Spreadsheets |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |  |
| Malankowski－Smith，B． | Every Number Wants To Be a Ten or a Close Relative | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |  |
| Manderscheid，Darrell | Level the Algebra Playing Field by Teaching Fractions |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Manderscheid，Marilynn | Visual，Auditory，and Kinesthetic Cures for Scrambled Brains |  | $\checkmark$ |  |  |  |  |  |  |  |
| Martin，John | A Piece of Pi |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |
| Mason，Pam | Effective Practices in Algebra That Create Success for All |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Mathurin，Andre | Ways to Naturally Revisit Geometry Proofs in Algebra Class |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Matsumoto，Brandon | From Multiplication to Factoring：Strategies for Factoring |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
| McDonald，Bob | The Importance of Language，Culture and Power in Mathematics |  |  |  |  |  |  | $\checkmark$ |  |  |

Sessions at a Glance

| Speaker | Presentation Title <br> （Refer to alpha section for presentation description．） | Target Audience |  |  |  |  |  |  |  | 砬 |
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|  |  | $\underset{\sim}{\text { ¹ }}$ | ¢ | $\stackrel{\circ}{\circ}$ | $\underset{\sim}{\sim}$ | 粊 | 烒 | Ј |  |  |
| McGuire－Paulson，Nancy | Fun Factoring：Strategies that Make Sense to All Students！ |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
|  | Level the Playing Field for All Using Math Games！ |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
| McLean，Peggy | It＇s a Tangram World |  | $\checkmark$ |  |  |  |  |  |  |  |
| McNamara，Julie | Beyond Pizzas and Pies：Supporting Fraction Sense |  | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |
| Meyer，Dan | Math Curriculum Makeover |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Miller，Jim | The Power of One in Teaching Fractions |  |  | $\checkmark$ |  |  |  |  |  |  |
| Miller，Lisa | Working Together to Provide Opportunities for All Students |  |  |  |  |  |  | $\checkmark$ |  |  |
| Moore，Sara | Algebra for All：Engage Students and Ensure Understanding |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
|  | Virtual Manipulatives？What Does Hands－on Really Mean？ |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  | $\checkmark$ |
| Morris，Kathy | Powers of Art：Multiplication for Middle Grades |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Moskowitz，Stuart | Two Birthday Parties in One Day？Problem Simulations on TI－Nspire® |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |
| Muller，Eric | Exposing Exponents：Really Big and Small Numbers in Science |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |
| Murray，Tom | How Likely Is It？Probability Games of Fun and Chance |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Neufeld，Rudy | Teach，Don＇t Tell：Understand，Don＇t Memorize |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  | $\checkmark$ |
|  | Build It，Draw It，Write It，Talk It．．．Own the Equity！ |  | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |
| Novelli，Barbara | Stirring Up Place Value Understanding and Success |  | $\checkmark$ |  |  |  |  |  | $\checkmark$ |  |
|  | Mixing Up Math Success for All Learners | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |  |
| Olkin，Julia | What＇s Holding This Up？Using Underlying Math Structures |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Pernin，Patricia | Enhancing Collaborative Workgroups Through Targeted PD |  |  |  |  |  | $\checkmark$ |  |  |  |
| Petersen，Bob | Algebra Connections：All Students Can Learn Algebra |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ | $\checkmark$ |
| Petrak，Cliff | Don＇t Slow Me Down with that Calculator，Part 1 |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
|  | Don＇t Slow Me Down with that Calculator，Part 2 |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Picciotto，Henri | Escape from the Textbook！Sharing and Collaboration Network |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Preston，Robert | Room for Alternative Algorithms：Multiplication \＆Division |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
| Raff，Cynthia | Making Sense of Integer Operations |  |  | $\checkmark$ |  |  |  |  |  |  |
| Ramos，Jeanne | Making Mathematics Accessible for All Students：Focus on ELLs |  |  | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
| Resek，Diane | Developing Deductive Thinking Before High School |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Ritchie－Reese，Patricia | String Polyhedra with a Twist：A Make－It，Take－It Session |  |  |  |  |  |  | $\checkmark$ |  |  |
| Roddick，Cheryl | Using the Singapore Bar Model to Solve Word Problems |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
|  | Fractions，Fair Trades，and Pattern Blocks |  | $\checkmark$ |  |  |  |  |  | $\checkmark$ |  |
| Rogers，Paul | Smartboards for Dummies |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Romanek，Brenda | Powerful Problem Solving：Functions in Algebra II |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Rossi Becker，Joanne | Math Specialist Credential：Creating CA Programs |  |  |  |  |  | $\checkmark$ |  |  |  |
| Sarcona，Lisbeth | Strategies for Discussion and Writing in Mathematics |  | $\checkmark$ |  |  |  |  |  |  |  |
| Schwartz，David | Putting the＂Wonder＂Back in Wonderful：Math Happens When Children．．． |  |  |  |  |  |  | $\checkmark$ |  |  |
| Selby，Victor | Game Theory：Building a Universal Conceptual Model |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |

Sessions at a Glance

| Speaker | Presentation Title <br> （Refer to alpha section for presentation description．） | Target Audience |  |  |  |  |  |  | 言気镸長 |  |
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|  |  |  | m | $\stackrel{\circ}{\circ}$ | ～ | 粊 | 棘 | Ј |  |  |
| Serra，Michael | Investigations in Geometry for 2010 |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
|  | Problem Solving Featuring Polya＇s Problem |  |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ |  |
| Shreve，Barbara | Developing Linear Relationships |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Silverman，Sandy | Big Math for Little Kids：Sorting and Patterns | $\checkmark$ |  |  |  |  |  |  |  |  |
| Smiler，Helen | The Power of Exponents to Create Mathematical Opportunities |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Smith，Keith | Going Beyond Algorithms for Area of Polygons |  | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |  |
| Starnes，Daren | Probability and Risk：Increasing Access via Simulation |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
|  | Making Sense of Inference for Sampling and Experiments |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |
| Tamez，Modesto | Integrating Proportions Across the Curriculum |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Tobes，Jeff | Math and Carpentry for the Young |  |  |  |  |  |  | $\checkmark$ |  |  |
| Tuska，Agnes | Empowering Teachers to Ensure Educational Access to Students |  |  |  |  |  | $\checkmark$ |  |  |  |
| Vierra，Vicki | From Passive Spectator to Productively Engaged |  |  |  |  |  | $\checkmark$ |  |  |  |
| Walker，Juanita | Building a Bridge from Elementary Mathematics to Geometry |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Watts，Carleen | Fractions：For Those Who Need to See It to Believe It |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Wenrick，Melanie | EEEK！There＇s a Buggy Algorithm in My Math Class！ | $\checkmark$ |  |  |  |  |  |  |  |  |
| West，Lucy | Academic Discourse—It Ain＇t Just for Kids |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| West，Rick | Preparing for Algebraic Success Using Function Machines | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Wilkins，Glenda | A Logical Approach to Proofs：All Students Achieve Success |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Willebrand，Sheri | Common Core Standards for K－2：How Are They Different？ | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |  |
| Winicki－Landman，Greisy | Fun and Powerful Geometry Activities for All |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Wu，Zhonghe | Differentiating Instruction：A Way to Close the Learning Gap | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| Yates，Christl | Reaching All Learners：Math as a Second Language |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |
| Youngs，Dave | Teach Arithmetic Using Algebra for Exponential Learning | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| Yu，Julie | Geometry of Nature：Exploring Patterns，Shapes and Symmetry |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Zaccaro，Ed | Five Real－Life Math Investigations that will Astound Students |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
|  | How We Are Lied To：Cheated and Manipulated by Statistics |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Zahner，William | Designing Tasks and Norms for Cooperative Learning with ELLs |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| Zeller，Erich | The Number Line？Animate it to Teach and Reach | $\checkmark$ |  |  |  |  |  |  |  |  |
| Zumwalt，Joan | Let＇s Make Junk Sequences |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |  |

## ASILOMAR PATHWAYS

Please stay on the paved paths that meander through the grounds or the boardwalks that take you on a delightful journey through the dunes．By keeping people off of the vegetation，Asilomar is able to preserve the natural landscape for all to enjoy for many years to come．You might see some paths that look like walking trails，but if they are not paved，they are simply animal trails created by many hooves walking the same route through the grounds．Thank you very much for your cooperation．


Commercial Exhibits

| Company | Asilomar Merrill Hall | PG Middle Gym | Company | Asilomar Merrill Hall | PG Middle Gym |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CMC Asilomar T-Shirts | Admin. |  | Intelli-Tunes |  | 255-256 |
| CMC ComMuniCator | Admin. | 276 | Key Curriculum Press | 146-147 |  |
| CMC Check In Bags and Badges | Admin. | 204-205 | Math Teachers Press, Inc. | 154-155 |  |
| Activity Resources Co., Inc. |  | 221-224 | Mathematics Diagnostic Testing Project | 142 |  |
| AIMS Education Foundation |  | 214-216 | MathType by Design Science |  | 226-227 |
| ALEKS Corporation | 144 |  | MIND Research Institute | 157 |  |
| America's Choice, Inc. | 150 |  | Moore Educational Resources | 156 |  |
| Bedford, Freeman \& Worth Publishers \& W.H., Freeman \& Co. | 104-105 |  | NASCO |  | 211-212 |
| California Casualty Auto and Home Insurance | 106 |  | NCTM |  | 218-219 |
| Carnegie Learning | 107 |  | Neufeld Learning Systems, Inc. | 151 |  |
| Cengage Learning | 143 |  | Pacent Learning Solutions | 152 |  |
| Center for Mathematics and Teaching, INC | 135 |  | Pearson | 158-160 |  |
| CGP Education, Inc. | 148-149 |  | Qwizdom, Inc. |  | 237 |
| CK-12 Foundation | 103 |  | Saxon | 131-132 |  |
| CMC Common Core Standards | 125-130 |  | Stokes Publishing Company |  | 267-268 |
| Conceptua Math | 141 |  | Teacherwear |  | 271 |
| CPM Educational Program | 133-134 |  | Texas Instruments |  | 242-244 |
| Curriculum Associates | 145 |  | The BizWorld Foundation |  | 260 |
| Emines, Inc. |  | 272 | The Markerboard People | 136-137 |  |
| Enterprising Ideas |  | 239 | The Pi-Dye T-Shirt Shop |  | 213 |
| Frog Publications |  | 235 | TODOS |  | 275 |
| Heinemann Publishers | 153 |  | Wholemovement |  | 229 |
| Houghton Mifflin Harcourt | 138-140 |  | Xtreme Math Games |  | 258 |
| Industry Initiatives for Science and Math Education (IISME) |  | 274 | YMIR Inc./The Ultimate Puzzle |  | 249 |
| Instructional Images |  | 232-233 |  |  |  |


| Pacific Grove Middle School | Friday / 5:00-7:15 p.m. | Saturday / 8:00 a.m. - 5:30 p.m. |
| :---: | :---: | :---: |
| Merrill Hall, Asilomar | Friday / 3:00-7:00 p.m. | Saturday / 8:00 a.m. - 4:00 p.m. |
| Exhibits close promptly at times listed above so visit early! |  |  |



MERRILL HALL


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| 101 |


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| ENTRANCE <br> AND EXIT <br> 118 <br> 119 <br> 120 <br> 121 <br> 122 |
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PACIFIC GROVE MIDDLE SCHOOL


EXIT \& LADIES ROOM

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ENTRANCE

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## Award Winners!

## - Presidential Awards, www.cmc-math.org/PAEMST

One elementary or one secondary awardee, chosen from several mathematics teacher finalists, get a trip for two to the White House and over \$10,000 in awards. The award alternates between the two levels: secondary in odd years, elementary in even.

2009 Presidential Award for Excellence
Sean Nank - El Camino High School, Oceanside Unified School District

## 2011 Secondary Teacher Nominations

Elementary and secondary awards are alternating. The nominations for the 2011 Presidential Award for Excellence in Mathematics and Science Teaching are now being accepted. Please encourage your colleagues to apply. A good candidate:

- Gets students excited about math
- Skillfully uses a variety of teaching techniques
- Engages students in meaningful mathematics
- Regularly reflects on lessons and seeks professional development
- Is actively involved in mathematics education at the local, state, and/or national levels


## - California Math Council, www.mc-math.org/awards

We are also grateful to the following winners of CMC's awards for educators who have given sustained service to the students of California and to the mathematics education community.

## Logothetti Award

Spencer Adkisson - High Desert Monessori School
Тімотну John Ebendick, II - California Math Council to the Far North
Ms. Shaundra Mille - Alameda Contra Costa County Math Educators
Camille Upton - Mt. Lassen Math Council

2009 Walter Denham Memorial Award
Susie Hakansson

There were no applicants for The Lurie Center Scholarship.

To nominate someone go to: www.cmc-math.org/awards

For more information about awards, or to nominate, visit:
Presidential Awards: www.cmc-math.org/PAEMST
or
California Math Council: www.cmc-math.org/awards

## Conference Evaluation Form

## California Mathematics Council - Northern Section

$53^{\text {rd }}$ Annual Asilomar Mathematics Conference

Please comment on any of the following to help us improve our conference. We do read every form returned and tabulate all comments, positive and negative. Please return this form by depositing it in the evaluation box in the Administration Building, the Middle School, or the Exhibit Hall.

NOTE: All evaluations returned during the conference will be entered in a drawing for FREE Conference Registration and On-Grounds Housing for next year. This year's free registration and housing winners are Kimberly Kirley and Katie Sutton.

Please comment on the general quality of the speakers, sessions and workshops.

What were the conference highlights for you?

What changes, if any, would you like to see?

Using a scale of 1 (very useful) to 5 (not useful), please rate the usefulness of each of the following sections of the program:
$\qquad$ Matrix (pages 10-13)
__ Alphabetical Speaker Listing (pages 14-31)
Sessions at a Glance (pages 32-36) $\qquad$ Conference Planner (page 9) $\qquad$ Site Maps (pages 46-48)

Comments

I would like to enter the drawing for FREE Conference Registration and On-Grounds Housing.

> In case you carry this form home, mail no later than

Name: $\qquad$
E-mail: $\qquad$

January 27-29, 2011
Association of Mathematics Teacher Educators (AMTE)
Annual Conference
Hyatt Regency Hotel, Irvine, CA
Susan Gay, sgay@ku.edu
February 25-26, 2011
CMC-Central STEMposium, Fresno, CA 888-CMC-Math or cmc-math@sbcglobal.net

February 26, 2011
Mathematics Educators of Solano County (MESC)
Annual Conference, Fairfield, CA Julie Crozier, julie4mesc@aol.com

## March 5, 2011

Sacramento Area Mathematics Educators (SAME) Annual Conference, CSU Sacramento, CA http://edweb.csus.edu/projects/same/

Council of Mathematics and Science Educators of San Mateo County (CMSESMC)
Annual Conference, Cañada College, Redwood City, CA April Cherrington, 650.802.5359 acherrington@smcoe.k12.ca.us

April 13-16, 2011
NCTM 89th Annual Conference Indianapolis, IN
http://www.nctm.org/conferences

## November 4-5, 2011

CMC-South Conference, Palm Springs, CA 888-CMC-MATH or cmc-math@sbcglobal.net

December 2-4, 2011
CMC-North Conference, Asilomar, CA 888-CMC-MATH or cmc-math@sbcglobal.net

April 25-28, 2012
NCTM 90th Annual Conference Philadelphia, PA
www.nctm.org or $703.620 .9840 \times 143$

For information and links to these math events go to:
www.cmc-math.org/calendar

## Communicator Sales

The following items are for sale Friday afternoon and Saturday at the Asilomar Administration Building and all day Saturday at the Middle School:

- 2010-11 Special Edition: Mathematical Thinking Across the Grades, K-12 (\$5)
- 2009-10 Special Edition: Activities Across the Strands, Grades K-12 (\$5)
- 2008-09 Special Edition: Probability and Statistics Across the Grades, K-12 (\$5)
- 2007-08 Special Edition: Geometry and Measurement Across the Grades, K-12 (\$5)
- 2006-07 Special Edition: Algebraic Thinking Across the Grades, K-12 (\$3)
- Post-It Cubes (\$5)

The following are $\$ 2$ each, or three for $\$ 5$ :

- 2005 Classics Publications: Grades 3-6
- 2004 Special Edition: More Standards-Based Activities for the Classroom, K-12
- 2003 Special Edition: Standards-Based Activities for the Classroom, K-12
- 1998 Special Editions
- Back issues of the ComMuniCator
- Pi poster


## Grant Guidelines

## California Mathematics Council - Northern Section

Purpose CMC-N wishes to encourage creativity and innovation among Northern California educators for the purpose of developing mathematically powerful students.

Who CMC-N members from any public or private school or district
Qualifications $\checkmark$ Must be current members
$\checkmark$ Can only apply once per school year
$\checkmark$ Should have additional sources of funding
$\checkmark$ Application completed in full
Proposal 1. Title Page, complete the form on page 44.

## Format 2. Project Description

a. Project Goals—What will the project seek to accomplish?
b. Statement of need as related to your students.
c. Project activities and timeline.
d. Impact-Who and how many will be effected?
e. Evaluation/Dissemination Plan-How will you assess and then document the outcomes of the project? What plans do you have for sharing?
3. Project Budget—provide an itemized budget listing support from other sources.
4. Amount requested. Partial funding likely.

## Applications must be limited to five pages including the cover form.

## Send to:

CMC-N Grants
c/o FaraLee S Wright
PO Box 2738
Suisun City, CA 94585-5738

## Mini-Grants

Mini-Grants for CMC-N members are available for up to $\$ 500$ to encourage creativity and innovation among Northern California educators for the purpose of developing mathematically powerful students.
Deadline: January 31 and November 1 of next year.
For information and applications visit
www.cmc-math.org/awards or contact FaraLee Wright at faralee.wright@sbcglobal.net

## California Mathematics Council - Northern Section

## Mini-Grant Deadlines: January 31-\$500

November 1 - \$500
Title of Grant $\qquad$
Name of Grant Leader: $\qquad$ CMC Member \# $\qquad$

Home phone: ( ) $\qquad$ Home e-mail: $\qquad$
School name: $\qquad$

School address: $\qquad$ Fax: $\qquad$

School e-mail: $\qquad$
The Grant will impact the following: Number of students: $\qquad$
Number of teachers: $\qquad$
Percent members of minorities: $\qquad$
Maximum amount requested to implement the grant: $\qquad$

## Include the following information in your request:

Item(s) to be purchased:
Expected vendor and prices:
Short narrative about how these items will be used:

Grant requests may be only partially funded. Additional funding sources available to you.
NOTE: Grant covers materials only, not teacher work time or compensation.
Only one Mini-Grant can be awarded per applicant per school year.
Grant is limited to current CMC-N members and to school sites in the CMC-N area.

## Approval Signature:

Grant Leader $\qquad$
Building Site Administrator Name and Title $\qquad$

## Send to:

CMC-N Grants, c/o FaraLee S Wright, PO Box 2738, Suisun, CA 94585-5738, or faralee.wright@sbcglobal.net

## Asilomar College Credit

## SPECIFICS:

$\checkmark$ Earn 1.5 quarter hours ( $=1 \mathrm{sem} \mathrm{hr}$ ) of college credit for your Asilomar participation.
$\checkmark$ Credit is from CSU East Bay Extension Division. Generally it can not be applied toward a degree program, but can be used as:

- professional growth units for your credential, and,
- district credit for step advancement. Check with your district regarding its policy on accepting these units.
$\checkmark$ Credit will be given in the Winter Quarter. Grades will not be available until April. Please do NOT call before that time. After February 1, you may send an e-mail to be sure your materials were received.
$\checkmark$ Grades are CR/NC only.
$\checkmark$ You must complete each of the requirements below.


## REQUIREMENTS:

1. Register for the conference.
2. Register for credit/no credit by downloading the form at http://www.cmc-math.org/activities/north_conference.html. Complete the form on your computer. Then print, sign, and mail with credit card information or your check for \$125.00 (payable to CSU East Bay).
3. Attend the opening session Friday evening 7:30-9:00 p.m. at Pacific Grove Middle School Auditorium.
4. Attend at least three sessions on Saturday, visit either exhibit area, and attend a Sunday closing session.
5. Type a paper as described below. Save a tree: single spacing is fine. Include your name, address and phone number on it in case of problems.

## PAPER:

1. Submit a two-part paper. In the first part devote a paragraph or more to each session you attended. Include details on the title, speaker, ideas, activities, and theme(s). Then, in the second part, reflect on how the conference affected your thinking about math education. How has it affected your classroom? How do you believe it will affect it in the future? What common themes did you see throughout the conference? This part should be at least 1 or 2 pages.
2. If you prefer, the two parts above can be combined into one using a more narrative style.

## REMEMBER:

The paper must exhibit a great deal of reflection, and must not be just a chronicle of how you spent your weekend.

Mail the registration form, payment, and paper in a single packet by January 30 to:

CMC, PO Box 880, Clayton, CA 94517-0880
Attention: Mike Contino or cmc-math@sbcglobal.net


## Affiliated Groups

Contact your local affiliate to find out more about their organization and become involved at a local level!

CA Math Council to the Far North (CMCN $\infty$ )
Mary Ann Sheridan, msheridan@nohum.k12.ca.us
Mt. Lassen Math Council (MLMC)
Chris Dell, cdell@shastacoe.org
Sonoma County Math Council (SCMC)
Ben Ford, ben.ford@sonoma.edu
Sacramento Area Math Educators (SAME)
Rita Johnson, rjohnson@csus.edu
Math Educators of Solano County (MESC)
Genele Rhoads, grhoads@solano.edu

Alameda Contra Costa County Math Educators (AC³ ${ }^{3}$ )

Elizabeth Brooking, esbrooking@yahoo.com

Contra Costa County Association of Science Math Education ( $\mathrm{C}^{3}$ ASME)
Connie Loosli, cloosli@wildlife-museum.org

## Council Math \& Science Educators San Mateo County (CMSESMC)

Julia King, jking@sbpsd.k12.ca.us

## Santa Clara Valley Math Association (SCVMA)

Trisha A. Bergthold, bergthold@math.sjsu.edu

## Monterey Bay Counties Math Education (MBCME)

Linda Dilger, Idilger@monterey.k12.ca.us
Northern Nevada Mathematics Council ( $\mathrm{N}^{2} \mathrm{MC}$ )
Denise Trakas-Wendt, denisewendt@gmail.com
San Francisco Math Teachers Association (SFMTA)
Jason Murphy-Thomas, murphy-thomasj@sfusd.edu

## Bus Service

On Friday, bus service will run between the Asilomar grounds and Pacific Grove Middle
 School from 3:45-9:30 p.m. Busses will run between Asilomar and Pacific Grove Middle School all day Saturday.


## Pacific Grove Middle School



Please park on streets adjacent to the school.

## Forest Avenue

to Exit to Lunch Area \& Gym



