“Discovering the Beauty in Mathematics”

Friday, December 5 - Sunday, December 7, 2014
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 three-day 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 wildlife as you meander through the grounds or take the boardwalks to the dunes. Join us!
**Mini Conference at Asilomar**  
**Friday | 1:30-4:30 PM**

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<th>Speaker</th>
<th>Topic</th>
<th>Grade Level</th>
<th>Room</th>
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<td>College and Career Ready Meets Math Intervention</td>
<td>Ldrshp</td>
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<td>Giganti, Paul</td>
<td>Using Children’s Literature as Entry Points into Common Core Mathematics</td>
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<td>Goldenstein, Donna</td>
<td>Mathematics and the Arts</td>
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<td>Humphreys, Cathy</td>
<td>The MP's in Action: Engaging Students in Math Investigations</td>
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<td>Ray, Max</td>
<td>Does That Make Sense in the Story? Launching and Exploring Rich Problems</td>
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<td>Serra, Michael</td>
<td>A Pirate’s Take on the Mathematical Practices</td>
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**PROGRAM**

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<tr>
<td>4:00-6:00 PM</td>
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<td>5:15-7:30 PM</td>
<td>Exhibits (materials for purchase)</td>
<td>Gym, Pacific Grove MS</td>
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<td>6:00-7:00 PM</td>
<td>Dinner</td>
<td>Dining Hall, Asilomar</td>
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<tr>
<td><strong>7:30-9:00 PM</strong></td>
<td><strong>Keynote Session:</strong> (information on page 7)</td>
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<td>Tony DeRose — Math in the Movies</td>
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<td>7:00-8:15 AM</td>
<td>Breakfast</td>
<td>Dining Hall, Asilomar</td>
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<tr>
<td>7:30 AM-12:00 PM</td>
<td>Registration</td>
<td>Surf &amp; Sand, Asilomar</td>
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<td>7:45-9:00 AM</td>
<td>Newcomers' Session</td>
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<td>8:00 AM-6:00 PM</td>
<td>Exhibits (materials for purchase)</td>
<td>Gym, Pacific Grove MS</td>
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<td>8:00 AM-12:00 PM</td>
<td>Sessions (matrix begins on page 10, speaker section begins on page 14)</td>
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<td>12:00-1:30 PM</td>
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<td>1:30-5:00 PM</td>
<td>Sessions (matrix begins on page 10, speaker section begins on page 14)</td>
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<tr>
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<td>Dinner</td>
<td>Dining Hall, Asilomar</td>
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<tr>
<td>7:30-10:00 PM</td>
<td>Ignite! (Dan Meyer, emcee), and President's Party Everyone Welcome!</td>
<td>Merrill Hall, Asilomar</td>
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<tr>
<td>7:30-9:00 AM</td>
<td>Breakfast (pickup box lunch)</td>
<td>Dining Hall, Asilomar</td>
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<td>8:00-8:45 AM</td>
<td>CMC-N Membership Meeting</td>
<td>Surf &amp; Sand, Asilomar</td>
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<td><strong>9:00-10:15 AM</strong></td>
<td><strong>Morning Keynote Session:</strong> Jo Boaler — Erasing Mathematics Failure Through a Growth Mindset and Multi-dimensional Mathematics</td>
<td>Merrill Hall, Asilomar</td>
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<td>10:15-10:45 AM</td>
<td>Coffee Break</td>
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<td><strong>10:45 AM - Noon</strong></td>
<td><strong>Mid-Morning Keynote Session:</strong> Phil Daro — Stepping Stones</td>
<td>Merrill Hall, Asilomar</td>
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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.

Ignite! (Dan Meyer, emcee), and President’s Party
We’re very excited to offer an Ignite session sponsored by Math Forum @ Drexel. 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.

Co-presenters: Michael Fenton, Annie Fetter, Javier Garcia, Arjan Khalsa, Laila Nur, Bree Pickford-Murray, Max Ray, Teri Ryan, Brian Shay, Elizabeth Statmore

Saturday, 7:30 - 10:00       |       Asilomar, Merrill Hall

Lunch Options
There will be food available for purchase at the Middle School! From 8:00am till about 2:00pm, 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. A limited number of meal tickets are available for purchase at the Asilomar front desk and light snacks can be purchased in the Asilomar Social Hall.

First Time at Asilomar
Come to Acacia, Friday between 4:00 and 6:00pm or Saturday between 7:45 and 9:00am for a 20-minute orientation session on how to navigate your first conference at Asilomar. We will show you all you need to know.

T-shirts and Sweatshirts
Displaying this year’s Asilomar Mathematics Conference logo will be available for purchase in Surf and Sand on Friday and Pacific Grove Middle School Gym on Saturday. Don’t miss your opportunity to bring home a memento of your conference participation.

CAMTE Luncheon
CAMTE will hold a luncheon meeting in the Marlin room on Saturday, December 6th at 12:15pm. Members and interested others are welcome to attend. Contact Diane Kinch for more information.

Important Note
Please be sure to check on the very last minute information that is posted in the Asilomar registration area.

Although you have likely planned your schedule ahead of time, it is important that you verify the session information with what appears in this program. The information here reflects some unavoidable changes. Some sessions have changed speakers and/or topics, some have changed times and some have changed location, or a session has reached room capacity.

Plan to use the Conference Planner on page 9. This will save you time by not having to make a last minute choice.
CMC-North Officers
President............ April Goodman-Orcutt
President Elect.......... Rebecca Lewis
Vice President............... Ana England
Treasurer....................... Brian Lim
Secretary..................... Rita Nutsch

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Ana England
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Jean Simutis and Beth Baker
Information Booth
Krista McAtee
Equipment
Alison Nash
Newcomers’ Orientation
Sherry Rodgers and Linda Shumate
Program Logo and T-shirt Design
John Martin
Social Media Chair
Elizabeth Schleth

Sessions
You will find four session types: Presentations, Interactive and Make-It, Take-It sessions.

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

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 Acacia, Friday between 4:00 and 6:00pm or Saturday between 7:45 and 9:00am for a 20-minute orientation session on how to navigate your first conference at Asilomar. We will show you all you need to know.

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

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 4:00 to 9:30pm and 7:15am to 6:00pm on Saturday.

Electronic devices
Out of respect for presenters and other participants, please turn off electronic devices during sessions.

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.

Refreshments
Coffee and tea are available during the conference at Surf and Sand, Merrill Hall, Evergreen and Acacia on Friday and Saturday. Water will be in all the rooms on the grounds.

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.

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 in Surf and Sand on Friday and Pacific Grove Middle School Gym on Saturday. 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.
David Foster — Executive Director of the Silicon Valley Mathematics Initiative (SVMI)

**College and Career Ready Meets Math Intervention**

The CCSSM’s mandate that “All Students are College and Career Ready by 11th grade” is aspiration, yet holds a solemn promise for America’s student. Tracking, course recovery, double periods, and remediation have been the traditional remedies for students who fail and fall behind. Successful models of those approaches are difficult to find. How can we change the model in the era of the CCSSM? Listen to ideas, plans, and tools that are being developed to address the college and career ready goal. The session will engage participants in using curricular materials to address formative assessment practices, differentiation and intervention.

**Ldrshp | PRS | Acacia**

Paul Giganti — Honorable Past President, Math Festival Program

**Using Children’s Literature as Entry Points into Common Core Mathematics**

The Common Core gives students new opportunities to learn mathematics, but it also presents teachers with new opportunities to teach creatively! Let’s use children’s literature to introduce and reinforce the new math standards. Children love children’s books—let’s use it to make them love mathematics too! This workshop will use multiple pieces of my favorite children’s books with math themes to lead us into related hands-on, standards-based lessons and projects—and a surprise ending.

**PK-2 | PRS | Nautilus West**

Donna Goldenstein — Retired Teacher, Awards Chair

**Mathematics and the Arts**

This mini-session will focus on math/art activities that encourage students to concentrate on the CCSS mathematical practices of perseverance, precision, and using tools strategically, as well as access the core curriculum. Participants will experience a variety of art projects that deepen the mathematical concepts in an intermediate grade classroom. Participants will walk away with art projects as well as a variety of journal prompts that integrate literature, mathematics and the arts.

**3-5 | INT | Toyon | BT**

Carl Haley — CK-12 Senior Content Manager

**Lights! Camera! Math! Students Develop 21st Century Skills by Making Math Videos on their Tablets**

Showing mathematical process can be fun when students make videos showing their thinking. Your students are the stars when they use Educreations or iMovie to narrate their solution as they show their process. Then they watch other students’ videos making comments and offering other ways to solve the task. It’s a powerful way for students to increase their skills in explanation and learn math concepts. If possible, bring an iPad or Android tablet to experience what this activity is like. A smartphone is also a lower tech alternate.

**GI | PRS | Nautilus East**

Cathy Humphreys — Stanford University

**The MP’s in Action: Engaging Students in Math Investigations**

Mathematical investigations give students a chance to experience mathematics as an exploratory activity. In mathematical investigations, students pose their own questions about a mathematical situation and then figure out how to approach answering them. They must gather relevant information, look for patterns, make and test conjectures, and justify their conclusions. In this session, participants will engage in a mathematical investigation; then talk about the teaching issues that arise.

**GI | PRS | Evergreen**

Max Ray — The Math Forum @ Drexel

**Does That Make Sense in the Story?: Launching and Exploring Rich Problems**

What does it take to get a room full of middle-school students persisting on a rich task? Lots of careful set-up and planning! We’ll explore some rich tasks using a range of representations, analyze stories and videos of teachers implementing rich tasks, and learn about effective ways to help students understand problems well enough to solve them and persevere during independent work time.

**6-8 | PRS | Heather**

Michael Serra — Author and Math Educator

**Title: A Pirate’s Take on the mathematical Practices**

Just as we ask our students to use appropriate tools strategically so must teachers learn to use a variety of teaching tools. In addition to the basic tools of discovery, teachers should also have available in their teaching repertoire a grab bag of motivational tools: magic tricks, games, puzzles, jokes, anything that makes students wonder, be perplexed, and thus willing to persevere to find out why. Participants will investigate interesting mathematical situations, solve puzzles, and strategize in game play.

**8-12 | PRS | Oak Shelter**
math in the movies
film making has undergone a revolution brought on by advances in areas such as computer technology, geometry, and applied mathematics. using numerous examples drawn from pixar’s feature films, this talk will provide a behind the scenes look at the role that math has played in the revolution.

students with a growth mindset achieve at higher levels because they are more likely to persist with challenging problems and have self-belief that they can achieve. but how do we encourage students to have a growth mindset, and how does mindset interact with issues of equity? in this presentation i will show how mindset is related to the mathematics we teach, and we will consider together what it means to teach multidimensional mathematics, at the same time as encouraging growth mindsets in our students. the changing of mathematics and mindset teaching has the potential to change the mathematics teaching and learning landscape, preparing students for the high-tech world as well as the common core. in this presentation we will look at what this means for classrooms, through videos and data, and consider how these important changes highlight a different role for teachers that allows their creativity and professionalism to take center stage.
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<th>Time</th>
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<th>Grade Level</th>
<th>Type</th>
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<td>8:00 - 9:00</td>
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<td>Get Students to Argue Through Number Sense Activities</td>
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<td></td>
<td>John Martin</td>
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<td>Steve Leinwand</td>
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<td></td>
<td>Scott Farrand</td>
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<td>9:30 - 10:30</td>
<td>David Foster</td>
<td>The Decisions and Shifts Required by the CCSS</td>
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<td>Harold Asturias</td>
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<td>11:00 - 12:00</td>
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<td>Dean Gooch</td>
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<td>Marcy Cook</td>
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<td>1:30 - 3:00</td>
<td>Cathy Humphreys</td>
<td>Number Talks Instead of Warm-Ups: Develop Algebraic Reasoning</td>
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<td>Richard G. Werner</td>
<td>Beauty in Mathematical Sculptures</td>
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<td>Megan W. Taylor</td>
<td>5th Tsuruda to (T)Sicherman: Great Problems for Common Core</td>
<td>8-12</td>
<td>INT</td>
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<td>Marcy Cook</td>
<td>Starters and Stumpers to Keep Minds in Motion</td>
<td>3-8</td>
<td>INT</td>
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<tr>
<td>3:30 - 5:00</td>
<td>Andrew Stadel</td>
<td>Modeling Mathematics Using Problem-Solving Tasks</td>
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<td>INT</td>
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<td>Dan Munton</td>
<td>Beyond the 13th Bak’tun: Beauty of the Calendars of the Maya</td>
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<td>Annie Fetter</td>
<td>“Noticing and Wondering”, a Vehicle to Understanding the Problem</td>
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<td>PRS</td>
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<td>Karl Schaffer</td>
<td>Polyhedra on a Shoestring</td>
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**CMC-North 57th Annual Conference**
Asilomar and Pacific Grove Middle School, Pacific Grove

**Getting at the Core of the Mathematical Practices**
December 11-13, 2014

Proposals will be accepted online at [www.cmc-math.org/activities/north_speakers.html](http://www.cmc-math.org/activities/north_speakers.html) from January 30 to April 30, 2015. 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: Ana England at northprogram@cmc-math.org.

**Call for Speakers**

**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 $200,000 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*
Many of the past activities supported have been math fairs and various math contests, however funds are not limited to these two type of events. For information on how to apply for these funds to support student activities in mathematics, visit [www.cmc-math.org/awards](http://www.cmc-math.org/awards), or contact your local affiliate president or Natalie Mejia at the SATF Chair, at nmejia62@yahoo.com.
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 between 4:00 and 6:00pm or Saturday between 7:45 and 9:00am for a 20-minute orientation session.
- The lunch hour is 90-minutes and does not overlap any session.
- Don’t forget to visit exhibits at Pacific Grove Middle School.

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<th>Conference Day and Time Planner</th>
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<td><strong>Friday</strong></td>
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<td><strong>Saturday</strong></td>
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**Asilomar Conference Grounds—Saturday Sessions**

We value your input and your feedback is important to us. All comments are reviewed by committee members to ensure next year’s conference is even better! We can make it better—you just have to tell us!

**Speaker and Conference Evaluation Forms Now Online!**

Go to our website and click on the link to the Speaker Evaluation Form input or go directly to https://www.surveymonkey.com/s/2014SpeakerEvaluations. Your input will be easier and faster to tally!

Complete Conference Evaluation Form online by December 31, 2014 and you 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 Denise Abbas and Robin Hayes. https://www.surveymonkey.com/s/CMCNorth2014
The leadership strand focuses on areas of interest to mathematics teacher leaders and coaches as well as district and site administrators. 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.

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.

The Beauty in Mathematics Strand is a special collection of sessions that highlights the artistry and elegance of mathematics in the spirit of this year’s theme.

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.

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.

BMATH: The Beauty in Mathematics Strand is a special collection of sessions that highlights the artistry and elegance of mathematics in the spirit of this year’s theme.

Bus Service

On Friday, bus service will run between the Asilomar grounds and Pacific Grove Middle School from 4:00-9:30 p.m. Busses will run between Asilomar and Pacific Grove Middle School and 7:15 a.m. - 6:00 p.m. on Saturday.

Refreshments

Coffee and tea are available during the conference at Surf and Sand, Merrill Hall, Evergreen and Acacia on Friday and Saturday. Water will be in all the rooms on the grounds.
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| Library Seats 25 | **Suzanne Alejandre**  
A Tour of the Math Forum's Classroom Video Collection | **Michael Serra**  
Martin Gardner and the Mathematical Practices | **Kim Webb**  
Exploring Fractions Through Number Talks | **Max Ray**  
Ursula is Undecided: Supporting the Simpler Problem Strategy | **Kari Wurch-Goldenson**  
Engaging All Students: An Equitable Approach to Honors Math |
| Room 1 Seats 30 | **Mardi Gale**  
Algebra Intervention and CCSS: Problem-Solving the Intersection | **Suzanne Damm**  
Fractions: See the Beauty by Building, Drawing and Plotting | **Joan Cotter**  
Using Drawing Board and Tools to Create Art Through Geometry | **Lew Douglas**  
Rhythm of Math | **Nanette Johnson**  
Fostering Perseverance with Interesting Math Problems |
| Room 4 Seats 30 | **Laura Pesavento**  
Number of the Day | **Rachel Lasek**  
Try Google Forms for Quick Formative Assessments! | **Eric Muller**  
The Math and Science of Surface Area and Volume | **Emiliano Gomez**  
The Hidden Mathematics | **Vicki Vierra**  
Beauty of Juicy Problems: Do Math Like You Mean It! |
| Room 5 Seats 30 | **Shelley Kriegler**  
Hand-ons Transformations: Dilations and Similarity | **Jordan Johnson**  
Functional Programming: Applied Math Fun | **Lori Hamada**  
Research-Based Classrooms: What Do They Really Look Like? | **Jeanne Lazzarini**  
Discover Fascinating Fractals and Math Connections! | **Andre Mathurin**  
Cryptography: Keeping Secrets Using Algebra and Geometry |
| Room 6 Seats 30 | **Jennifer North Morris**  
Do the Math: Like Your Life Depends On It | **Bree Pickford-Murray**  
Calculus Adjacent: Designing Math Electives Accessible To All | **James Fleisher**  
Math Tunes: Rock On With Math | **Brian Shay**  
Building Connections Through Authentic Tasks | **Tom Reich**  
Integrating Math and Fine Art |
| Room 7 Seats 30 | **Gloria Brown Brooks**  
Making Sense of Problem Solving with ELLs | **Jill Riehl**  
When Students Run the Show: Developing Magic Class Discourse | **Lori Reardon**  
How Is Math Beautiful? | **Christine Roberts**  
One District’s Journey for Making the CCSSM a Reality | **Jeanne Ramos**  
Building Students Confidence as Perservering Problem Solvers |
| Room 8 Seats 30 | **Allan Bellman**  
Put Yourself in Your Algebra Problems with Digital Video | **Perrin Phillips**  
Standards of Math Practice Tips and Discussion Routines | **Sheldon Erickson**  
Use Your Students’ Smart Technology to Help Them Learn Math | **Victor Selby**  
Mathematics: So Beautiful It Can’t Be Expressed by Words | **James Sheldon**  
From Individual Deficits to Complex Instruction |
| Room 9 Seats 30 | **William Zahner**  
Understanding the CCSS-MP Attend to Precision for Els | **Calisa Holm**  
Study Statistics Holding Your Breath and Writing with Both Hands | **Stuart Moskowitz**  
Circular Reasoning: 2[π]r and Tr-2: Which is Which? | **Chris Paulus**  
Do Bees Build It Best? | **David Chamberlain**  
A Large District’s CCSS Transition: Successes and Challenges |
| Room 10 Seats 30 | **Seth Dow**  
Making Use of Your IPad: Apps That Enhance Understanding | **Carl Haley**  
Customizing Free Digital Content to Increase Student Learning | **Greisy Winicki Landman**  
Preparing a Good Math Game: From My Desk to Yours | **Michael Fenton**  
Desmos: Infinite Graphing Power on Every Device, for Free | **Ryan Mangan**  
Integrated Computing and STEM Education in the 21st Century |
| Room 11 Seats 30 | **Janet Bales**  
Revolutionary Math Intervention | **Kim Kirley**  
Common Core Math and Your Kindergarten Program | **Beth Baker**  
Order of Operations in Context: Real Problems, Not Isolated | **Dennis Mulhearn**  
Area: Where Can I Find Great Problems? | **Shelley Carranza**  
Functions, Functions, and More Functions |
| Room 12 Seats 30 | **Alison Mazzaola**  
Modeling Division to Develop Understanding | **Sandy Silverman**  
Real World Sorting, Classifying and Patterns, K-1 | **Jessica Murk**  
Using Feedback and Revision to Improve Problem Solving | **Barbara Novelli**  
Teach Science: Teach Math! | **Melissa Canham**  
Number Sense Routines that Support the SMPs |
| Room 13 Seats 30 | **David Chamberlain**  
A Large District’s CCSS Transition: Successes and Challenges | **Seth Dow**  
Making Use of Your IPad: Apps That Enhance Understanding | **Carl Haley**  
Customizing Free Digital Content to Increase Student Learning | **Greisy Winicki Landman**  
Preparing a Good Math Game: From My Desk to Yours | **Michael Fenton**  
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| Room 14 Seats 30 | **Janet Bales**  
Revolutionary Math Intervention | **Kim Kirley**  
Common Core Math and Your Kindergarten Program | **Beth Baker**  
Order of Operations in Context: Real Problems, Not Isolated | **Dennis Mulhearn**  
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Functions, Functions, and More Functions |
| Room 15 Seats 30 | **Alison Mazzaola**  
Modeling Division to Develop Understanding | **Sandy Silverman**  
Real World Sorting, Classifying and Patterns, K-1 | **Jessica Murk**  
Using Feedback and Revision to Improve Problem Solving | **Barbara Novelli**  
Teach Science: Teach Math! | **Melissa Canham**  
Number Sense Routines that Support the SMPs |
| Lab 21 Seats 30 | **Janet Bales**  
Revolutionary Math Intervention | **Kim Kirley**  
Common Core Math and Your Kindergarten Program | **Beth Baker**  
Order of Operations in Context: Real Problems, Not Isolated | **Dennis Mulhearn**  
Area: Where Can I Find Great Problems? | **Shelley Carranza**  
Functions, Functions, and More Functions |
| Lab 22 Seats 30 | **Alison Mazzaola**  
Modeling Division to Develop Understanding | **Sandy Silverman**  
Real World Sorting, Classifying and Patterns, K-1 | **Jessica Murk**  
Using Feedback and Revision to Improve Problem Solving | **Barbara Novelli**  
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Number Sense Routines that Support the SMPs |
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Alejandre, Suzanne — Director of Prof Dev., The Math Forum at Drexel

A Tour of the Math Forum’s Classroom Video Collection

What’s possible when students become active doers rather than passive consumers of mathematics? In the spring of 2013, the Math Forum partnered with Christopher Columbus Charter School in Philadelphia to produce videos of some of our favorite problem-solving activities. Our videos are freely available on our website http://mathforum.org/pps/video.html. We’ll tour the collection and discuss ways the community can add to it! Problem prompts and problem-solving activity handouts will be provided.

3-8 | INT | 748 | Saturday, 8:00 - 9:00 | PG High School, Curlew | BT | $  

Allen, Toni — Palo Alto USD

What Does “Go Deeper” Really Mean?

We all hear that Common Core requires that we go deeper into the concepts. What does that really mean? How do I integrate it with my current instructional materials? In this session, we will explore and experience what it means to go deeper into the CCSS-M standards using Formative Assessment Lessons and Re-engagement lessons. We will show methods to integrate without adding more.

3-5 | W | 456 | Saturday, 8:00 - 9:00 | PG Middle School, Library | BT

Co-presenter: Laura Reeves

Arrillaga, Katy — Bilingual Teacher, Russ ES

Counting Pockets, Pumpkin Seeds and Other Things

Counting a 1,000 things can be a daunting task, but when students count they develop number sense. Students learn how numbers work. The Common Core Standards ask that students by second grade count objects, read and write numbers, use base ten numerals, number names and expanded form with numbers up to 1,000. Leave with some instructional ideas to use in your classroom.

PK-2 | INT | 205 | Saturday, 9:30 - 10:30 | Asilomar, Evergreen | BT

Baker, Beth — Zane MS

Order of Operations in Context: Real Problems, Not Isolated

It’s time to integrate order of operations into the whole year. We will use problem sets to explore the progression of order of operation in the CCSSM. Given the right situation, students can make sense of, and communicate about important mathematics. Finding area of combinations of shapes, summarizing story problems in one long expression, or expressing the total number of tiles in a growing pattern can all generate situations where students will naturally apply correct order of operations. We will explore and experience what it means to go deeper into the CCSS-M standards using Formative Assessment Lessons and Re-engagement lessons. We will show methods to integrate without adding more.

PK-2 | INT | 748 | Saturday, 8:00 - 9:00 | PG High School, Curlew | BT | $
Barboza, Bob — Project Director, Super School (K-12) Univ.
STEAM ++ Occupy Mars the Learning Adventure
We will demonstrate how we meet Common Core Standards through our STEAM++ projects: Occupy Mars, Backpack Journalism, Backpack Science and Backpack Robotics. Our use of STEAM++ graphic organizers help to individualize math and language arts for special needs, ELL, and gifted students.
8-12 | PRS | 447 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 33 | BT

Barlow, Rick — Fremont HS
Math Fights and Middle Bits
Pushing students to think, write and talk clearly about their mathematical ideas is challenging. In our experience, structures are key to supporting all students to communicate and justify their thinking well. In this session we will share two participation structures we have used to scaffold students’ mathematical communication and the thinking behind it. Teachers will also brainstorm how to integrate and implement participation structures like these in their classroom.
8-12 | INT | 151 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 33 | BT
Co-presenter: Shira Helft

Bellman, Allan — Univ. of Mississippi
Put Yourself in Your Algebra Problems with Digital Video
Videos each showing the beginning of a slightly different situations involving their teacher will encourage a class to develop mathematical models to determine which of the videos to view in its entirety, they can only view one. Using their models, can they pick the video with the fun ending? In the session, participants will work, as an algebra class would, on this task. Assessment determined differentiated groups, multiple solution paths and tools, and math practices 1-6 are featured.
8-12 | INT | 139 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 12 | BT

Biagetti, Stephanie — CSU Sacramento
Let’s Talk Math: Designing Productive Discussions in K-2
This interactive session will provide concrete ideas about how to structure purposeful math conversations to deepen student learning and develop students’ academic language skills. Intentional math discussions support the development of ELLs’ (and ALL students’) language skills while at the same time target “critical” math concepts. You will leave the session with strategies and planning templates that will help get your students talking productively about math during the next class.
PK-2 | INT | 207 | Saturday, 9:30 - 10:30 | Asilomar, Acacia | BT

Biehl, Chuck — Special Academic Programs, Charter School of Wilmington
Critical Path Analysis: The Best-Kept Modeling Secret in CCSS
Mathematical modeling is a tough topic, even in Common Core. This session features an easily accessible activity used for planning large projects, like preparing a holiday meal, opening a restaurant, or building the space shuttle. Emphasis is on reasoning, algorithms, and vertex-edge graphs as mathematical models. This is a great introduction to modeling with a non-traditional approach.
8-12 | INT | 257 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 39 | BT

Binnert, John — Georgiana Bruce Kirby School
Flipped Classroom 102: The 2015 Hybrid Learning Environment
In this session, participants will be introduced to Schoology and Google Classroom, free learning management systems which can be used to create and host course materials, class forums, student blogs, and more. Every assignment can be synced to the Common Core State Standards, and most, if not all assignments, can be graded and feedback delivered right in the system. Participants will be given user log ins to a math course designed specifically for the conference.
8-12 | INT | 454 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 36 | $

Block, Staci — Principal, Stevenson Ranch ES
Exploring Engaging Opportunities to Meet Our ELLs’ Needs
Come and explore best strategies for teach English Language Learners. Learn how to create robust and engaging lessons with research-based strategies that will help foster academic vocabulary and improve higher order thinking skills. Participants will observe modeled Project GLAD (Guided Language Acquisition Design) and Kagan Cooperative Learning strategies that promote language acquisition and development. Project GLAD instruction utilizes dynamic, adaptable, and practical strategies for teaching second language learners and all learners in any classroom setting. These strategies focus on making instruction comprehensible, developing oral fluency and vocabulary, and allowing every child to feel comfortable, included, and excited about class participation. During the session, participants will receive instructional resources, hand-on experiences and be coached on how to implement strategies that will increase rigor in mathematics’ lessons.
3-5 | INT | 217 | Saturday, 9:30 - 10:30 | Asilomar, Nautilus West | BT

Boursier, Kristopher — Teacher, Live Oak HS
Help! Resources for Adapting to Common Core
This session will begin with a brief description and demonstration of how lesson plans need to change for adoption of the Common Core Standards. We will then share and demonstrate our list of resources. Then attendees will be asked to share their resources. Follow-up will include an organized list of resources and a possible website with the list and a forum for sharing future information.
8-12 | INT | 151 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 33 | BT
Co-presenter: Mickey Valella — Teacher, Ann Sobrato HS

Conference Evaluation Form
Go to https://www.surveymonkey.com/s/CMCNorth2014 by December 31, 2014 and you 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 Denise Abbas and Robin Hayes.
**Brooking, Elizabeth — ACCCME**

**Geo-Math**

Explore our Earth using simple models and student-friendly math. How can students measure how big the Earth is? How far are we to the Sun? Why granite continents float? And more! We'll combine Common Core math and language content with Next Generation Science concepts to discover the Math of Geology!

3-8 | MITI | 150 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 32 | BT

**Cartooning to Teach Math (for the artistically-challenged)**

If you can't draw much more than stick figures, this is the workshop for you! We will explore many ways to use cartooning to teach math (and develop productive discourse) while engaging students and helping them discover underlying mathematical concepts and structures. Most students are drawing anyway, so let's help them learn math while they're doodling!!

3-8 | INT | 250 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 32 | BT

**Brown Brooks, Gloria — Santa Ana Opportunity**

**Making Sense of Problem Solving with ELLs**

Sharing comments and work from my ELL students, we will explore ways to prepare our ELL students to become successful on vocabulary filled assessments. We will discuss which strategies have proven useful and explore student mathematical discourse.

6-8 | INT | 136 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 7 | BT

*Co-presenter: Justine Wong*

**Burrill, Gail — Academic Specialist, Michigan State Univ.**

**The CCSS, Ratios, Proportions: Implications for Classrooms**

The CCSS approach to ratios and proportions, supported by interactive dynamic technology, can bring coherence and consistency to content that has been “tough to teach/tough to learn.” What shifts do we need to make in our practice and how can we make them happen?

6-8 | PRS | 309 | Saturday, 11:00 - 12:00 | Asilomar, Marlin | BT

**Callahan, Amy — High Tech HS**

**Bridging Problems, Projects and the Common Core**

Teachers new to projects often wonder where a project comes from. In this session, we will start with some traditional math tasks and model how they can be turned into richer experiences for students. Participants will then have their own turn developing such a task into a project.

8-12 | INT | 444 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 25 | BT

*Co-presenter: Sarah Strong — Math Teacher, High Tech HS*

**Callahan, Patrick — UCLA**

**Mathematical Reasoning: Why We Are Bad at It**

Reasoning is getting some major play: SMP2: Reason abstractly and quantitatively. SBAC Claim#3: Communicating reasoning. We will explore some research on reasoning and make a case that mathematical reasoning is hard because it is unnatural!

GI | PRS | 253 | Saturday, 9:30 - 10:30 | PG Middle School, Auditorium | BT

**Canham, Melissa — Teacher Specialist, Mathematics, Downey Unified SD**

**Number Sense Routines that Support the SMPs**

How do you help your students develop a rich number sense while integrating the Standards for Mathematical Practice... Routines! This session will focus on developing number sense routines, such as number talks, that are based on Cognitively Guided Instruction research.

PK-5 | PRS | 543 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 24 | BT

**Carlyle, Ann — UC Santa Barbara**

**Make Sense of Number Relationships with Number Lines K-2**

The Open Number line is a model that students can use flexibly, depending on their familiarity with finding tens, counting forward by jumps of ones or tens, and their understanding of the relationship between addition and subtraction.

PK-2 | PRS | 351 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 33 | BT

**Carranza, Shelley — Math Coach, Mountain View Los Altos SD**

**Functions, Functions, and More Functions**

Follow the progression of functions through Algebra, Geometry, and Algebra II. GeoGebra will be used to explore the role of transformations in each course. The presentation will include instructions on how to make a demonstration, pre-made demonstrations and how to use them, as well as activities for students.

8-12 | PRS | 542 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 22Lab | BT

**Chamberlain, David — Capistrano USD**

**A Large District’s CCSS Transition: Successes and Challenges**

Learn how a large CA district has provided support/resources to its 200+ secondary math teachers through quality PD and an online community. We will also share the challenges that still lie ahead. Access to hundreds of CCSS resources will be provided.

8-12 | PRS | 340 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 13 | BT

*Co-presenter: Courtney Schreiman — Secondary Math TOSA, Capistrano USD*

**Chamberlain, Mike — Math Consultant - Director, Fresno COE**

**Third Grade Integration: Multiplication, Fractions, and Oreo**

The Common Core calls for connections to be made between content standards whenever possible. This session will examine a specific classroom lesson involving the introduction of multiplication and fractions through the use of Oreo cookies within a student-centered setting. Participants will walk through the lesson, receive the lesson plan itself, exam student work, and view video of this lesson being taught. Integration can be rather natural when carefully planned out and executed.

3-5 | INT | 315 | Saturday, 11:00 - 12:00 | Asilomar, Triton | BT

*Co-presenter: Ramona Barcena — 3rd Grade Instructor, Cesar E. Chavez ES*

**Chappill-Nichols, Shalek — Master Teacher/Activity Developer, Resource Area for Teaching (RAFT)**

**Crazy 4 Math**

Start the new year with activities and ideas that address Pre-K through 2nd grade math concepts. Games and materials to extend lessons beyond the workbook page and support the transition kindergarten student will be presented. Appropriate for use in the classroom or as a take-home activity. A resource list, activity models, literature links, and websites will be shared.

PK-2 | MITI | 407 | Saturday, 1:30 - 3:00 | Asilomar, Acacia | BT

**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.
Charney, Cristina — Instructional Specialist-Elem Math, North Thurston Public Schools
Cultivating Perseverance in Students Who Struggle
To expect perseverance, teachers must teach students to name and normalize productive struggle. When that is not enough to maintain perseverance, teachers ask questions that encourage agency while providing an appropriate amount of support. Participants will learn about creating a classroom culture that embraces “tinkering”; shifts “helping” to “conferring,” and provides mathematical models to scaffold grade-level learning. All which encourage independence in students who typically struggle.
8-12 | PRS | 245 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 26 | BT
Co-presenter: Janeal Maxfield — Instructional Specialist-Elem Math, North Thurston Public Schools

Cheng, Ivan — Associate Professor, CSU Northridge
How I Met Your Mother Function
Competent and confident problem solvers need to use appropriate tools strategically in order to…wait for it…understand transformations as functions in geometry. This session will use PowerPoint as a simple tool to create lessons in transformational geometry. Ready to use lesson activities will be provided!
8-12 | PRS | 116 | Saturday, 8:00 - 9:00 | Asilomar, Nautilus East | BT
Co-presenter: Jaspreet Sandha — Common Core Expert, LAUSD

Clark, Jeff — Mathematics Instructor, Santa Rosa JC
Math in the Movies II
Have you ever been watching one of your favorite movies and heard something that sounded mathematical? Have you ever wondered if it was correct? Jeff Clark, SRJC mathematics instructor, found dozens of Hollywood movies that included math concepts. Some are done correctly, others that got it wrong. Let us take you on a movie journey that will entertain and possibly peak your curiosity about Math in the Movies. (This is an update/continuation of one done at a previous CMC Asilomar Conference.)
8-12 | PRS | 206 | Saturday, 9:30 - 10:30 | Asilomar, Nautilus East | BT

Clark, Sherrina — Independence HS
More Techy Tools and Apps
Come and explore what is new with technology tools that engage students in a variety of ways. From brain training to response systems, developers are creating new and innovative apps and sites that foster student learning. This session will allow you to choose which tools are useful for you and your classroom. Bring your own device! (Apple iOS and Androids are welcome.)
8-12 | PRS | 247 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 28 | BT

Cook, Marcy — Author
Problems Per Primary Pupils
Start young children on the road to mathematical thinking with meaningful activities. Engage all students in seeing and doing addition and subtraction in a variety of ways. Involve them with word problems and challenge problems on a daily basis. Practical ideas to use immediately to involve all in our wonderful world of mathematics.
PK-2 | INT | 353 | Saturday, 11:00 - 12:00 | PG Middle School, Auditorium | BT

Costa, Elmano — CSU Stanislaus
CCSS Problem Solving for English Learners: It Is Possible!
English learners can be competent and confident problem solvers! This workshop will show how to plan and deliver comprehensible lessons. It begins by presenting the key features of effective lessons and then models with a lesson taught exclusively in Portuguese.
PK-5 | INT | 357 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 39 | BT

Cotter, Joan — Activities for Learning, Inc.
Using Drawing Board and Tools to Create Art Through Geometry
Children, grades 3 and up, can easily learn the skills for using small drawing boards, T-squares, and triangles. With these materials, they can construct equilateral triangles and divide them into halves, thirds, fourths, sixths, eighths, twelfths, and more. They can also construct hexagons, stars, squares, tangrams designs and their reflections, while discovering geometric relationships.
3-8 | PRS | 453 | Saturday, 1:30 - 3:00 | PG Grove Middle School, Rm 1

Courant, Ted — Mathematics Instructor, Bentley School
Mathematical Throughlines: Topics that Span the Curriculum
This presentation explores the idea of Narrative Throughlines in mathematics. We present topics that span the standard curriculum, from pre-algebra to college-level mathematics, and include applications of technology. The topics reinforce practical skills while providing students opportunities to explore beautiful mathematics.
8-12 | PRS | 510 | Saturday, 3:30 - 5:00 | Asilomar, Curlew | BT

Dagler, Clay — Luther Burbank HS
Discover How to Reduce Square Roots: A Look at the “SMP”
This session will show teachers how to lead students to discover how to reduce square roots. In the first part of the presentation, teachers will take on the role of students and classroom observers while the lesson is demonstrated. The second part of this session will be a share out on how the lesson addressed some of the new common core standards.
8-12 | INT | 354 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 36
Damm, Suzanne — UCSC
**Fractions: See the Beauty by Building, Drawing and Plotting**
Come explore fractions following the CCSS progressions. We will explore fractional relationships by building and plotting on a number line. We will add, subtract, multiply and divide fractions using manipulatives. We will transfer fractions from concrete to representational including number lines.
3-8 | INT | 231 | Saturday, 9:30 - 10:30 | PG Middle School, Room 1 | BT

de Villiers, Michael — Professor, Univ. KwaZulu-Natal, South Africa
**Nine Point and Spieker Circles and Euler and Nagel Lines**
This paper will discuss some beautiful and remarkable results from 17th and 19th century geometry such as the 9-point and Spieker circles as well as the Euler and Nagel lines, and the interesting analogy that exists between them. Little known generalizations of these results will also be shown. Due to their visual nature, these results are accessible to undergraduate students, prospective and practicing high school teachers, as well as for the more mathematically talented high school learner.
C | PRS | 251 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 33 | BT

Doetch, Ryan — Taylor ES
**Best iPad Apps and Strategies to Enhance Math Instruction**
iPad + Math = Engagement. In this energized and dynamic session, award winning math and innovation teacher, trainer, author and international presenter, Ryan Doetch will share the most effective math apps and the most engaging activities to enhance your math instruction. You will leave this high energy session with dozens of innovative ideas on how to best use iPads to help your math instruction, outstanding iPad apps to motivate students and strategies that strengthen academic achievement.
PK-5 | PRS | 147 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 28 | BT

Doherty, Bill — Campolindo HS
**Flipping the Math Classroom**
Today's technology allows us to rethink how we deliver instruction to our students. Come hear how one teacher has "flipped" the high school mathematics classroom for the past three years, and the implications for student engagement and performance.
8-12 | PRS | 141 | Saturday, 1:30 - 3:00 | Asilomar, Toyon | BT

Dorf, Carol — Berkeley HS
**Writing Mathematical Poetry: Developing Academic Language**
Poetry and mathematics share the ability to compress large ideas into small forms. In her poem “Pi,” Nobel winner Szymborska considers Pi’s expansion: “How feeble the star’s ray, bent by bumping up against space!” Thus, the symbol holds infinite possibilities. The unit is based on Rhythm Blocks, a technique that is easy to learn, even for teachers and students with little or no musical experience. Now available for purchase, you will learn about it by standing up and hitting yourself (but not too hard!).
3-5 | INT | 431 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 1 | BT | $18

Douglas, Lew — The Lawrence Hall of Science
**Rhythm of Math**
Rhythm of Math is a Unit for grades 3-5 developed by Body Musician Keith Terry and retired elementary school teacher Linda Akiyama. Rhythm of Math engages students in important math content by analyzing, composing, and performing rhythms. The unit is based on Rhythm Blocks, a technique that is easy to learn, even for teachers and students with little or no musical experience. Now available for purchase, you will learn about it by standing up and hitting yourself (but not too hard!).
3-5 | INT | 431 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 1 | BT | $18

Dow, Seth — Sugar Bowl Academy
**Making Use of Your iPad: Apps That Enhance Understanding**
How can you use your iPad, to demonstrate mathematics, assess students, and organize your documents to enhance your tools as a teacher? I have used Educreations, TI-Nspire, Airfile and Algebra Tiles and will share student work. We will focus on, a) What kinds of understanding are apparent in an Educreations video that are not apparent in a pencil/paper assessment?, b) At what point would a task like this be the most useful?, c) What are the limitations of this type of assessment in your classroom?
8-12 | PRS | 182 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 21Lab | BT

DuVander, Renee — Math Teacher, Wine Country Math Council
**CCSS Geometry: Let Them Eat Cake, or at Least Design It**
Allow your students to explore geometric measurement and dimension through hands-on experiences with cake! In this session, I will share my 3-D Cake Design Project which integrates the CCSS in Geometry with CTE standards in Culinary. I will share the project description, student instructions, related lessons, and student-work examples. What better way to engage your high school students than through their stomach? You can take this project, adapt it, and use it this year.
8-12 | PRS | 108 | Saturday, 8:00 - 9:00 | Asilomar, Toyon | BT

Erickson, Sheldon — Fresno USD
**Use Your Students’ Smart Technology to Help Them Learn Math**
Students have smart phones and tablets. Use that technology to engage and grow their understanding of math. Use it to develop conceptual understanding through interaction. Utilize it to provide individual instruction and tutoring. Find out how to gather data and do collaborative problem solving. Student often have more technology in their hands then in a school computer lab. Take advantage of it to allow students to gain a deeper understanding of math through engagement and interactivity.
6-8 | PRS | 339 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 12

Farrand, Scott — CSU Sacramento
**Think First**
Changing the way class starts each day can change the habits of mind of our students, and it can change the way that we relate to our lessons. We’ll look at warm-up problems, from various grades and topics, that are designed to emphasize thinking instead of remembering, inviting students to find insights into the lesson before the teacher speaks. We’ll also report on how this small change has fostered collaboration among instructors and improved calculus instruction at Sacramento State.
6-8 | PRS | 153 | Saturday, 8:00 - 9:00 | PG Middle School, Auditorium | BT
Co-presenter: Deb Stetson — Director, Calif Math Project at Sac State
Feeney, Krishna — Math Coach, Montera MS

The Beauty of Proportions: Maps, Art and Scaling
Proportional reasoning is one of the fundamental steppingstones that prepares students for success in algebra and the real world. In the Common Core standards for middle grades, proportional reasoning is one of the largest and most exciting strands. Leave with several key learning experiences appropriate for grades 6-8 that engage and encourage students to think proportionally, to use proportions in real (and fantasy) world settings, and to see the beauty of proportionality all around us.

6-8 | PRS | 256 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 38 | BT
Co-presenter: Elisabeth Smeltzer — Teacher, Montera MS

Feldstein, Shelah — Math Consultant, Tulare COE

Supporting English Language Development in Math
This workshop will help you meet the needs of your English Learners by exploring ways to develop math content through the use of discourse and dialog. This session will reference both the Mathematics and ELA/ELD Framework in order to highlight pedagogical practices, which simultaneously support math content and language development.

PK-5 | INT | 410 | Saturday, 1:30 - 3:00 | Asilomar, Curlew | BT
Co-presenter: Kim Webb — Math Consultant,

Fenton, Michael — Teacher, Fresno Christian Schools

Desmos: Infinite Graphing Power on Every Device, for Free
This online graphing calculator will change your life. Join us for an interactive session on Desmos, the free and fantastically beautiful online graphing calculator. Design engaging tasks, facilitate multi-representational discussions, and encourage graphing inquiry in your classroom. Help students develop mathematical habits of mind through graphing. The learning curve is low and the sky’s the limit. Bring a laptop or tablet to the session for maximum graphing joy.

8-12 | INT | 441 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 21 Lab | BT

Fetter, Annie — The Math Forum @ Drexel

Noticing and Wondering, a Vehicle to Understanding a Problem
The practices of Noticing and Wondering can help all students generate mathematical ideas and make connections between them. Noticing and Wondering pave the way for the development of other problem solving strategies and support a classroom culture that gives every student a way to contribute and treats math as a creative process.

3-8 | PRS | 518 | Saturday, 3:30 - 5:00 | Asilomar, Merrill Hall | BT

Feeney, Krishna — Math Coach, Montera MS

Math Tunes: Rock On With Math
Hear songs about various math topics. Most modern songwriters have the disadvantage of writing about things no one cares about, such as love, relationships, or partying. Algebra Man has the unfair advantage of having songs about something far more exciting and relevant to today’s youth: mathematics. Hear such hits as Slope, Proving Triangles are Congruent, and Absolute Extrema.

8-12 | PRS | 335 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 6 | BT

Foster, David — Silicon Valley Math Initiative

The Decisions and Shifts Required by the CCSS
Teachers, administrators and parents are confronted with a significant change in K-12 education, as America shifts to the Common Core State Standards. These shifts require changes in math content, instructional practices and the demands on students. The next generation assessments challenge students to think and do mathematics differently. Schools and districts are making and implementing important decisions about course offerings and student pathways. Negotiating these shifts and decisions will be discussed in this session and curricular and assessment tools will be introduced and shared.

6-8 | PRS | 201 | Saturday, 9:30 - 10:30 | Asilomar, Heather

Gaines, John — Site Coordinator, South Whittier SD

Engineering in the Elementary
Participants will explore problem-solving through the engineering design process in the elementary classroom. They will work through a problem-based learning activity and will discuss strategies for integrating mathematics and engineering.

PK-5 | MITI | 450 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 32
Co-presenter: Rogelio Villasano Jr. — Program Leader, South Whittier SD

Integrating Filmmaking and Mathematics
Participants will explore a new approach to developing mathematical fluency through the art of filmmaking. They will investigate ways of analyzing mathematical concepts by integrating filmmaking and mathematics, while learning the steps to successfully produce a student film.

3-8 | PRS | 550 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 32
Co-presenter: Rogelio Villasano Jr. — Program Leader, South Whittier SD

Electronic Devices
Out of respect for presenters and other participants, please turn off electronic devices during sessions.
Gale, Mardi — WestEd
Algebra Intervention and CCSS: Problem-Solving the Intersection
Examine essential elements for algebraic intervention that support the CCSS, the SMP problem solving and writing. Examine conceptually based content that targets common barriers to algebraic success and promotes problem solving in alignment with CCSS. Participants will engage in math and receive material that models the CCSS assessments. Supports ELL's and PLC structures.
8-12 | PRS | 131 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 1 | BT

Garcia, Javier — Mathematics Staff Development and Curriculum Specialist, Tulare COE
Building Structures That Guide Student Sense-Making
Feedback is critical to learning. Participants will explore ways to increase the point of contact between students and mathematics, consider structures to provide feedback that deepen student understanding of mathematics and sense-making strategies.
6-8 | PRS | 356 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 38 | BT

Goldfield, Dan — Island HS
Outside Math Activities
Students today spend a lot of time inside the classroom. In this session we will explore some simple outside activities such as How Big is that Star? or How Big was that Quake? We will also explore some more involved outdoor explorations such as How Much Carbon is in that Tree?, How Far Can I see?, How Many Grains of Sand is that? Many of these activities start with basic questions and can quickly extend into many different branches of math depending on your focus.
8-12 | INT | 517 | Saturday, 3:30 - 5:00 | Asilomar, Nautilus West | BT

Gomez, Emiliano — Univ. of California, Berkeley
The Hidden Mathematics
In mathematics there are problems (like Fermat’s Last Theorem) which may seem easy at first, but turn out to be hard to solve. Come and experience the opposite! We will present problems that may seem hard at first, but turn out to be easy to solve thanks to the beauty of the hidden mathematics behind them. In order to find it, we may need to add colors or numbers, change our perspective, or make a model. Come ready to roll up your sleeves!
8-12 | INT | 433 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 4 | BT

Gooch, Dean — Santa Rosa JC Mathematics
Cryptography and Codes: Brief History of Encryption and its Uses
What is cryptography? What influences has cryptography had on world history? Has and is cryptography used for the purposes of espionage? Has cryptography ever been the determining factor in the winning of battles or wars? What is recreational cryptography and who does this? How does cryptography effect one’s life in today’s society? These are the questions that will be addressed in this brief talk on cryptography.
GI | PRS | 306 | Saturday, 11:00 - 12:00 | Asilomar, Scripps Conference | BT

Grant, Lisa — Education Programs Consultant, California Department of Education
Come On In the Math is Fine! Dive into the CA Math Framework
In this workshop session, we will dive deeply into the content of the framework and how to use it in your daily classroom instruction.
GI | INT | 448 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 29 | BT
Co-presenter: Deborah Franklin — California Department of Education

Haley, Carl — CK-12
Customizing Free Digital Content to Increase Student Learning
Learn how to use CK-12 totally free, digital, concept-based resources that include lessons, texts, images, videos, simulations, interactives, practice problems, assessments, project and so much more. Your students can access all this digital content on any device: laptop, tablet and smartphone. This session will introduce many of CK-12’s features and take you through the steps of getting your classes set up and on their way to quality content.
8-12 | W | 241 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 21Lab | BT

Hamada, Lori — AIMS Center for Math & Science Education
Research-Based Classrooms: What Do They Really Look Like?
How does research really impact the student experience? What does that look like? How do teachers make it happen? We’ll look at how knowledge that we have learned from research can be translated into a real working solution in the math classroom, and how that translation can impact the student experience and student achievement.
GI | PRS | 334 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 5 | BT

Harris, Shawn — Director, The College Board, SpringBoard
Sparking Math Conversations with Virtual Tools
Spark your creativity by participating in this interactive session that explores digital math tools to enhance student-centered learning environments! Virtual tools and manipulatives that promote and solidify conceptual understanding of middle and high school topics and support implementation of the CCSS Practice Standards will be explored. Participants will also gain an understanding of how these tools prepare students for the expectations of tomorrow’s careers.
6-8 | INT | 317 | Saturday, 11:00 - 12:00 | Asilomar, Nautilus West | BT

Hirsch, Tere — Retired
Scaffolding Rigorous Tasks for All Learners
We need to insure that all students can access rigorous math tasks. We will look at new, as well as tried and true strategies that are necessary to scaffold accessibility. The SMPs will have a profound impact on classroom practices. We need to help students persevere, organize, observe, conclude, use tools, justify their thinking and critique the thinking of others. In this presentation you will experience mathematical tasks and strategies that help facilitate a path to success for all learners.
3-8 | INT | 415 | Saturday, 1:30 - 3:00 | Asilomar, Triton | BT

REFRESHMENTS
Coffee and tea are available during the conference at Surf and Sand, Merrill Hall, Evergreen and Acacia on Friday and Saturday. Water will be in all the rooms on the grounds.
Holm, Calisa — Teacher, Pacific Union ES
Study Statistics Holding Your Breath and Writing with Both Hands
CCSS Content Standards emphasize statistics in the middle school math curriculum. Motivate students with interesting data sets that teach us about ourselves and with easy to use graphing technology. We’ll model CCSS Practice Standards as we see how long we can hold our breath and time how fast we can write with each hand. Then, after displaying the data using TI-84Cs, we’ll describe, analyze, and interpret the results.
6-8 | INT | 240 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 13 | BT | $  
Co-presenter: Stuart Moskowitz — Teacher, Humboldt State Univ.

Holman, Lynda — Math Consultant, Marietta City Schools
Hands-On Algebra for Primary Students
Common Core State Standards introduce Algebra topics in kindergarten, first, and second grades. Join in a hands-on session of equations, word problems, and real-world connections. You will use lessons and interactive tasks than can be implemented in your classrooms when you return to school on Monday!
PK-2 | INT | 344 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 25 | BT

Holston, Ira — Math Teacher
English Instruction for Algebra 1 (SDAIE) Students
This discussion concerns the lessons learned through a collaboration of a SDAIE math and a SDAIE English Teacher at Berkeley High. The focus of English Instruction for Algebra I students is to use strategies that help students develop and practice academic language for learning mathematics. At the same time students need to learn the mechanics, vocabulary and logic of Algebra; as well as mathematical reasoning!
8-12 | INT | 348 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 29 | BT  
Co-presenter: Heidi Ramirez-Weber — English Teacher & ELL Chair

Humphreys, Cathy — Stanford Univ.
Shifting the Class Culture: Number Talks in High School
Most middle and high school students have had few opportunities to "attend to the meaning of quantities - not just how to compute them." Short daily lessons called Number Talks can help our students gradually move away from "what to do" toward "what to do and why." This session will consider why this is so important and how to get started with Number Talks in our classrooms.
GI | INT | 403 | Saturday, 1:30 - 3:00 | Asilomar, Heather | BT

Johnson, Jordan — Teacher, Math & Technology, Georgia Bruce Kirby Prep School
Functional Programming: Applied Math Fun
For years programming has been promoted as a medium for learning about math, but pseudo-algebra like x = x + 1, common in programming, invites confusion. In functional programming (FP), programs are true mathematical functions. In this talk you’ll meet DrRacket, a free, open-source FP kit designed for learners, and see Bootstrap, a project using FP to teach algebra. See how we can use FP to make pictures, games, and simulations that enrich learning, from Algebra to AP Statistics!
8-12 | PRS | 234 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 5

Johnson, Nanette — Downey Unified SD
Fostering Perseverance with Interesting Math Problems
We will do math problems that will make students persevere. Because these problems are nontraditional, students will have to rely on conceptual understanding to find the solution, instead of mimicking a stated, paved path (by the teacher or textbook).
8-12 | INT | 531 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 1

Johnson, Rebecca — District Solutions Manager, Walch Integrated Math
Implementing the CCSS Integrated Pathway: Math I, II, III
Overview of Walch Integrated Math’s purpose-built materials for Common Core Integrated Math I, II, and III. Teacher materials focus on Problem Based Tasks, Station Activities, and formative and summative assessments. WalchWeb access includes online unit assessments which mirror the look and navigation of SBAC.
8-12 | PRS | 109 | Saturday, 8:00 - 9:00 | Asilomar, Martin | $  

Johnson Rock, Monica — Hayward DO
Accessing Geometry Through Origami
Why origami? Children learn concepts best when they have time to explore and create their own thinking to build understanding. Origami allows students to create models that represent complex concepts. This workshop will show a systemic approach in how to create models to teach students geometrical concepts and vocabulary. This approach emphasizes the following standards for Mathematical Practice: precision and the ability to reason abstractly.
3-8 | INT | 408 | Saturday, 1:30 - 3:00 | Asilomar, Toyon | BT

Kaplinsky, Robert — District Office
Implementing Real World Problem-Based Math Lessons
Students are excited to learn math when they see it as trying to find the answer to a problem they care about. We will work through a problem, discuss how it supports the Common Core State Standards, and address potential implementation issues. Attendees will leave with access to hundreds of problems that are available on the Internet and ready to be used the next day.
6-8 | PRS | 509 | Saturday, 3:30 - 5:00 | Asilomar, Martin | BT

Kennedy, Karen — UCLA Center X
Mathematical Modeling and the Common Core: What’s to Argue?
Mathematical modeling is a powerful process in which students can connect classroom mathematics to real life situations. By adding context and relevance to modeling tasks, teachers insure higher student interest and motivation. In this session, participants will learn how to implement engaging modeling tasks to build a classroom culture of inquiry and problem-solving as they foster the 4Cs of 21st Century learning – collaboration, communication, critical thinking, and creativity.
6-8 | INT | 157 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 39 | BT

CCSS MP3 Construct Viable Arguments and Critique the Reasoning of Others
Killingsworth, Serge — Teacher, Mount Shasta HS

Origami Triangles: Beauty is in the Hands of the Folder

Special triangles such as the equilateral, hemieq (30°-60°-90°), half-square (45°-45°-90°), ambiguous-case (ASS) and the pythagorean-triples (3-4-5, 5-12-13, etc.) can all be easily folded using a square sheet of paper. This presents a colorful, hands-on opportunity to investigate the special properties of these triangles, which are an important part of the geometry, algebra and trigonometry curricula. Discovering connections between algebra and geometry: a beautiful thing, indeed!

8-12 | MITI | 255 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 37 | BT

Kirley, Kim — Teacher, Park School

Common Core Math and Your Kindergarten Program

Wondering how to fit CCSS into your kindergarten program? I’ll share engaging and meaningful ways to deepen the mathematical thinking and learning you do with your students! Walk away with many no/low cost activities and resources. Let’s have fun with math!

3-5 | INT | 557 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 39 | BT | $ NK 2 | PRS | 242 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 22Lab | BT

Krafel, Alysia — Mentor Teacher, Chrysalis Charter School

Teaching Division the Common Core Way

CCSS asks 3rd and 4th grade teachers to teach division thinking, not the standard procedure we all learned in school. So what is division thinking? Using multiple methods to find an answer, making sense of other people’s methods and looking for patterns. Teaching division is important and often difficult. Come learn some ways of making it easier and more comprehensible to students using teacher-made drop in units. You will not find this material in your new text books. Resources provided.

3-5 | INT | 557 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 39 | BT | $ PK-2 | PRS | 242 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 22Lab | BT

Kriegler, Shelley — Center for Math and Teaching, Inc.

Hands-On Transformations: Dilations and Similarity

Come experience activities and discussions that build understanding of transformations as functions. This session will focus on dilations and similarity, with applications to slope and the Pythagorean Theorem.

8-12 | INT | 134 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 5 | BT

Krupa, Adam — Associate Director, SpringBoard

Sparking Math Conversations with Virtual Tools

Spark your creativity by participating in this interactive session that explores digital math tools to enhance student-centered learning environments! Virtual tools and manipulatives that promote and solidify conceptual understanding of middle and high school topics and support implementation of the CCSS Practice Standards will be explored. Participants will also gain an understanding of how these tools prepare students for the expectations of tomorrow’s careers.

6-8 | INT | 317 | Saturday, 11:00 - 12:00 | Asilomar, Nautilus West | BT

Kysh, Judith — San Francisco State Univ.

What Do My Algebra Students Really Know?

We will look at creating assessment questions that probe understanding beyond procedures. Samples and ideas for turning procedural tasks into questions that require understanding and reasoning will be provided. We will consider construction of chapter tests that balance fluency with procedures, conceptual reasoning, and problem solving in order to assess students’ development of core practices.

8-12 | INT | 555 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 37 | BT

Lambert, Teruni — Univ. of Nevada Reno

Implementing Effective Whole Class Discussions

Explore how you can effectively use whole class discussions to support all your students to learn math so that you get results in student achievement! Learn about the Three Levels of Sense Making Framework for facilitating productive discussions. This framework is embedded in the process of planning and teaching which naturally integrates the Standards for Mathematical Practice.

GI | PRS | 457 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 39 | BT

Lasek, Rachel — Mathematics Department Chair, El Molino HS

Try Google Forms for Quick Formative Assessments!

Overwhelmed by grading? Wish there was a faster and easier way to check for student understanding? Look no farther! Learn how to create Google Forms to use for quizzes, surveys, and assignments, which students can access on any device and receive immediate feedback. Get students writing about mathematics and making viable arguments! Come learn how to use 21st Century Skills to check for daily understanding, without endless papers. Bring your laptop to learn first hand.

8-12 | PRS | 233 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 4 | BT

Lau, David — Professor of Mathematics, Mission HS

Use of TVM Program on TI 84 and Calculus in Finance Math

Using TI 84 (TVM) Time, Value, Money along with basic calculus to solve problems in finance mathematics such as mortgage payments, refinancing a loan, accelerated payment, equity, loan balance, and interest payment. The use of calculus in solving present and future values will be discussed as well.

8-12 | INT | 446 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 27 | BT

Lazzarini, Jeanne — Resource Area for Teaching (RAFT)

Discover Fascinating Fractals and Math Connections!

Make and take fascinating Common Core Math connections with fractals that appear everywhere – in bodies, plants, shells, mountain ranges, along coastlines, streams, galaxies, in the design of software and music, in predicting earthquakes and flu epidemics, in awesome computer generated projects, and so much more! Explore the math behind our self-similar world with its fractal dimension. Includes several samples to make and great supplies to use right away with your class!

6-8 | MITI | 434 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 5 | BT | $
Leinwand, Steven — Principle Research Analyst, American Institutes for Research
Shift Our Mindsets from Remembering How to Understanding Why
Some of the least effective lessons I’ve recently observed boil down to telling students what they need to remember. Some of the very best and most effective lessons I’ve recently observed boil down to providing students with a range of alternative approaches and representations that support an understanding of why the answers make sense. We’ll look at a range of examples to model the chasm that separates these two approaches.

Mangan, Ryan — Education Specialist / Teacher, UC Davis C-STEM Center
Integrated Computing and STEM Education in the 21st Century
This workshop presents the UC Davis C-STEM program with innovative CTE and Common Core standards compliant curriculum for integrating computing in C/C++ and robot programming into formal K-12 STEM education, particularly focused on technology and engineering topics that reinforce mathematics concepts. The program culminates with the annual C-STEM Day with RoboPlay Competition and Math Programming Competition.

Lim, Brian — CSU Sacramento
Examples and Resources for Mathematical Modeling
The 4th Standard of Mathematical Practice in CCSS-M is to model with mathematics and the 5th Standard of Mathematical Practice is the using appropriate tools strategically. In this presentation, we will go through some of my favorite mathematical modeling problems as well as discuss some of the key things to consider when we model with mathematics. I will share some of the resources where you can get more examples and ideas of mathematical modeling.

Linder, Jeffrey — Math Specialist, Montecito Union SD
Claim, Support, Question: Thinking Routine
Teach students how to make claims, support them with evidence, and critique the reasoning of others through games and open-ended problems. Participants will experience this thinking routine that can be used to teach or assess key concepts.

Lomeli, Elizabeth — Teacher, Wilma Cavitt JHS
Hook Your Geometry Students
Grab your students’ attention at the beginning of each unit and pique their curiosity about geometry. We will be examining outstanding resources such as video clips, stories, riddles, and websites that will help link each common core geometry standard to student prior knowledge and make them want to know more. Walk away confident that you can incorporate resources that will excite your geometry students and connect math to everyday life.

Losq, Christine — President, MathCoach Interactive
Think-Pair-Share to Develop Common Core Math Practices
Learn how Think-Pair-Share strategies develop the eight mathematical practices of the Common Core. We’ll share examples and classroom ready materials that develop number sense and academic language using the open number line, matching games, and ten frame tiles. Take away classroom ready materials.

Maxfield, Janeal — Instructional Specialist, North Thurston Public Schools
Learning to Love the Number Line!
Instructional Specialists from North Thurston Public Schools share their insights and practical ideas for helping teachers and students harness the power of the number line as an enduring model for operations with whole numbers, fractions, and decimals. Many teachers and students struggle to connect their mathematical thinking to the number line. This participatory session will help you make the connection. Session is appropriate for 2nd-5th grade educators.

Marti, Andres — Math Content Specialist, San Francisco USD
San Francisco: Building a Core Curriculum for All Students
Hear how teachers in San Francisco used an iterative development process to create and implement a core curriculum for all students. The core curriculum is based on rich math tasks that have multiple entry points, support productive struggle, promote student discourse, build conceptual understanding, and form the basis for ongoing formative assessment. The implementation includes ongoing professional development structures that focus on building site-based professional learning communities.

Mathurin, Andre — Bellarmine College Prep.
Cryptography: Keeping Secrets Using Algebra and Geometry
Get ideas for engaging students in exploring how to use mathematics to make communication private within the context of algebra and geometry topics. Attendees will learn about the basic ideas of cryptography by participating in activities that incorporate fundamental algebraic and geometric concepts into the design of an algorithmic process for concealing a message. Particular attention will be given to using ciphers as a way of exploring the concept of function.

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Mazzola, Alison  
**Modeling Division to Develop Understanding**  
Let’s move beyond cute, memorized sayings and help students develop and understanding of division. Participants will build models of division that preserve place value understanding and one's intuitive sense of number. We will explore division of whole numbers and of fractions.  
3-5 | INT | 143 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 24 | BT

McLean, Peggy — Peggy McLean Consulting  
**What Is This Place? A Collection of Place Value Activities**  
Place value is identifying basic units of number and measurement systems and understanding the relationship of the order of these units. Participants will build trees and other unique counting tools to develop meaning for different number systems. Games and activities will be used to strengthen place value understanding.  
3-5 | INT | 146 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 27 | BT

Meyer, Dan — Stanford Univ.  
**Video Games and Making Math More Like Things Students Like**  
Students around the world are playing millions of hours of video games every day and, in many cases, they're enjoying those games more than they enjoy our math classes. Let's look at several of the most popular video games of all time and pull out some lessons. As task designers, test givers, and classroom managers, what can we learn from those games?  
4-8 | INT | 1318 | Saturday, 11:00 - 12:00 | Asilomar, Merrill Hall | BT

Mittag, Kathleen — Retired Mathematics Ed. Professor, Univ. of Texas at San Antonio  
**A Hands-on Math Function Activity Using Science Gas Laws**  
New ideas to integrate math, science and technology support student learning. The hands-on activity uses inexpensive manipulatives (soda cans, plastic syringes) to model functions for scientific gas laws. Topics covered: measurement; mean; graphing; tables; independent/dependent variables; direct/indirect/inverse functions; dimensional analysis; domain; range; problem solving; interpretation of function graphs; percent error; units used to express air pressure; and math CCSS used.  
6-8 | INT | 155 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 37 | BT

Moore, Sara — ETA hand2mind  
**Hands-on Fractions: Manipulatives for a Strong Foundation**  
CCSS emphasizes the idea of fractions as numbers. Students are asked to work with fractions as numbers - counting, using a number line, and thinking through operations. Manipulatives provide an essential tool for supporting student learning in this work. Learn to use a variety of tools to help students master fractions as numbers and integrate the standards of mathematical practice into instruction.  
3-5 | INT | 505 | Saturday, 3:30 - 5:00 | Asilomar, Evergreen | BT

Morris, Kathy — Sonoma State Univ.  
**Re-engagement, Chunky Problems and Textbook Transformations**  
Stuck in an I-We-You rut? Come explore three innovative, student-thinking, oriented lesson protocols to break the “warm up, correct HW, direct instruction, guided practice, independent practice, repeat” cycle. Re-engagement, Chunky Problems & Textbook Transformation lessons work for any math content and provide rich formative assessment! We’ll focus on helping students develop math practices, especially make sense, persevere, construct arguments and utilize structure.  
3-8 | INT | 504 | Saturday, 3:30 - 5:00 | Asilomar, Oak Shelter | BT

Morrison, Patty — Fresno USD  
**Using Literature to Teach Math Concepts in K-2**  
Children love to hear stories! Literature is a great way to introduce math in a fun way to get children engaged in the lesson. Each story shared will include an activity to promote student understanding of the math in the story. Students create their own product so they can work at their level - beginning to advanced. Come get ideas and activities that you can use in your classroom on Monday. Many of the lessons were written by the speaker and student work samples will be shared.  
PK-2 | INT | 154 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 36 | BT

Moskowitz, Stuart — Humboldt State Univ.  
**Circular Reasoning: 2πr and πr^2: Which is Which?**  
CCSS state 6th graders will know and understand the derivation of formulas for circumference and area of circles. But both formulas have the same three symbols: r, π, and 2, and we know how hard it can be to memorize formulas. We will cover and surround circles with M&M candies, then after displaying the data on TI84C’s, we’ll use trial and error to find formulas to fit the data. We’ll also investigate some very creative methods (new and old) to help us better understand which is which.  
6-8 | INT | 340 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 13 | BT
Co-presenter: Calisa Holm — Teacher, Pacific Union ES

Moyer, Kyle — Academic Programs Manager, Summit Public Schools  
**Project-Based Learning for Mathematical Practices**  
This session shares Summit Public Schools’ 21st century model of mathematics curriculum and instruction, designed to prepare all students for college readiness by teaching beyond content to the important life-long cognitive skills and mathematical practices. The session will share innovative strategies and resources for project-based learning, formative assessment, self-paced content, and blended learning, among others, all aligned to Common Core.  
8-12 | INT | 417 | Saturday, 1:30 - 3:00 | Asilomar, Nautilus West | BT
Co-presenter: Calisa Holm — Teacher, Pacific Union ES

Mulhearn, Dennis — Math Olympiads  
**Area: Where Can I Find Great Problems?**  
Non-routine problems are an effective tool to teach area. The real problem is finding problem-solving gems. Math contests are a fertile source. Work through a dozen contest classics. Leave with these and over 50 additional problems for class use.  
3-8 | INT | 442 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 22Lab | BT

CCSS MPS Use Appropriate Tools Strategically
Muller, Eric — Exploratorium
The Math and Science of Surface Area and Volume
Explore the math and science of surface area and volume with cool chemistry activities from the Exploratorium. We will measure and calculate things all the way down to the size of an atom. Starting with simple geometric and algebraic concepts, we will work our way through exponential notation and beyond the nano-scale. All lessons use easily obtainable materials.

8-12 | INT | 333 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 4 | BT

Munton, Dan — Santa Rosa JC
Beyond the 13th Bak’tun: Beauty of the Calendars of the Maya
The Maya Calendar generated much interest prior to the end of the 13th Bak’tun in 2012. Now that we have finished “partying like it’s 12.19.19.17.19”, we can examine more closely the mathematics of the intricate and beautiful calendars of the Maya, including the Tzolk’in, Haab, Long Count and Lunar calendars, and how they interconnect. We will explore the cultural context in which these calendars were and are used as well as the history of their decipherment.

GI | PRS | 506 | Saturday, 3:30 - 5:00 | Asilomar, Scripps Conference | BT

Murk, Jessica — Windsor HS
Using Feedback and Revision to Improve Problem Solving
In math class students are taught, first draft equals final draft. By using peer feedback and revision, students can learn how to persevere in their own problem solving and how to construct viable arguments and critique the reasoning of others. We will also explore strategies to improve student argument writing in mathematics.

8-12 | PRS | 343 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 24 | BT
Co-presenter: Patrick Callahan — UCLA

Murray, Tom — Math Consultant
Math Games: Hands-on, Minds-on Fun!
Join the fun of playing a wide variety of mathematically based skill and strategy games, many I’ve discovered from over 25 years at Asilomar. Students will need to use: logical reasoning, follow patterns and develop game playing strategies to be successful. Number skills, place value, geometric patterns and probability are just a few of the math components that students will experience by playing these challenging and thought provoking games. Connections will be made to the 8 Math Practices.

3-8 | INT | 148 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 29 | BT

Nank, Sean — Professor, American College of Education
Lots of Squares: An Example from the Digital Library
Where can I find resources aligned with SBAC test items? In this session, you will navigate the Digital Library to access formative assessments. The Lots of Squares activity will be completed, highlighting Standard G-CO and MP 1, 2, 3 and 8. Participants will discover how many squares they can make inside of one square. Participants will notice, wonder, discover, and problem solve to determine patterns and strategies for making squares. A complete and adaptable lesson plan will be provided.

8-12 | INT | 104 | Saturday, 8:00 - 9:00 | Asilomar, Oak Shelter | BT

Nickerson, Rob — Resource and Professional Learning Educator, ORIGO Education
Be Precise: Link Addition and Subtraction
Addition and subtraction are closely linked. What strategies are used to strengthen this connection between these operations and develop flexible thinking and competent students? Attend to Precision using strategies and rich mathematical language in this interactive session.

PK-2 | INT | 144 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 25 | BT

North Morris, Jennifer
Do the Math: Like Your Life Depends On It
The pressure is higher than ever to use investigative tasks in mathematics. Come experience “life or death” investigations that help us understand what rigorous problem solving and modeling look like. Will you take the plunge with Sherlock Holmes or will you survive the Deadly Dice? Come consider your choices…and construct viable arguments.

8-12 | INT | 135 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 6 | BT
Co-presenter: John Berryman — Math Teacher, West Hills HS

Novelli, Barbara — Consultant, George Fox Univ.
Teach Science: Teach Math!
Science is the perfect context for teaching the core math standards and making them relevant to your young learners. Barbara will fill this session with ideas about how to teach number sense, measurement and problem solving through science. For STEM Schools this session is a must!

PK-2 | INT | 443 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 24 | BT

Paulus, Chris — Santa Maria HS
Do Bees Build It Best?
Experience the progression of the mathematical ideas of area, perimeter, regular polygons, volume and tessellations as we study the honeycomb of the bees. See how the authors of this curricula incorporate integrated course work to answer the question, Do Bees Build It Best?

8-12 | INT | 440 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 13 | BT

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.
Pesavento, Laura — Bilingual Teacher  
**Number of the Day**

We will present effective ideas of how to use Number of the Day, differentiated for Pre-K, K, 1st and 2nd grades using a variety of tools and techniques that are aligned with Common Core and the Standards of Mathematical Practices. We will address place value, expanded notation, even/odd, less than/greater than, written number form, etc. We will demonstrate how tools can be used in multiple ways to represent a number or value and how dot and number talks can be incorporated into this routine.  
3-5 | INT | 133 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 4 | BT  
Co-presenter: Sandra Gonzalez — Bilingual Teacher

Phillippi, Kevin — Elementary Math Coordinator, San Bernardino City USD  
**A Visit with Fractions: Making Sense of It All**

Many of the common core standards in grades 3-6 cover concepts that are different than what we have experienced. This session is designed for new teachers or teachers new to their grade level and will provide a hands-on experience with fraction concepts from grades 3-6. Throughout the workshop, teaching methods will be explored in an atmosphere that supports those who feel insecure with their content knowledge. Participants will leave with an understanding of what to teach and how to teach it.  
3-5 | PRS | 404 | Saturday, 1:30 - 3:00 | Asilomar, Oak Shelter | BT

Phillips, Perrin — Teacher, Southgate ES  
**Standards of Math Practice Tips and Discussion Routines**

In our world of common core standards, student math practices, and assessment we need to teach in a targeted manner. How can we focus on the whole class and the individuals? This session will include several ideas you can use tomorrow. How to:  
- Manage and organize your room for small group math instruction  
- Keep track of your students math skills  
- Isolate essential math skills and create quick assessments  
- Set up routines for students to use the Math Practices for discussion  
3-5 | PRS | 239 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 12 | BT

Pickford-Murray, Bree — The Bay School  
**Calculus Adjacent: Designing Math Electives Accessible To All**

Although many fascinating topics in math can be explored with minimal prerequisite knowledge, math elective courses are often designed for students who have already taken calculus. Learn about one school that takes a different approach - designing courses that are open to as many students as possible - Topology, Cryptography, Probability and Game Theory.  
8-12 | PRS | 235 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 6

Pugh, Charlene — Teacher, Longwood ES  
**Tools for Student Toolboxes: Multiple Methods**

We will explore the different methods we can teach our students for success with mathematical operations, while making sense of what is happening. Only teaching the algorithms does not allow all of our students to gain access to the skills they need. We will look at and practice the different methods we can use for the four operations. Multiple methods allows all of our students to model with mathematics, critique the reasoning of others, and adds tools to their mathematical toolboxes.  
3-5 | INT | 244 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 25 | BT

Pugalee, David — Univ. of North Carolina Charlotte  
**Reading and Writing to Support Math Learning: CCSSM Literacy**

The CCSSM requires students to demonstrate solid literacy skills to fully participate in problem solving and mathematical reasoning as envisioned in the standards. This session will provide classroom-tested and research-based strategies to support reading and writing in mathematics. Participants will receive a 65 page handout of strategies, information, and tools to assist in developing literacy connections that support the Common Core.  
3-8 | PRS | 216 | Saturday, 9:30 - 10:30 | Asilomar, Nautilus East | BT

Reardon, Lori — Teacher, Crossroads School  
**How Is Math Beautiful?**

Students often fail to see that math is all around us. This session will explore how math is beautiful through the avenues of art, nature and architecture. Participants will review algebra and geometry projects including creating pictures by graphing functions and spiral designs by using Pythagorean theorem, designing tessellations and mandalas and finding real-world geometric shapes and parabolas and modeling them mathematically. Project sheets and rubric assessments will be included.  
8-12 | INT | 336 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 7 | BT  
Co-presenter: Erin Hansen — Teacher, Wildwood School
Reich, Tom — Faith Ringgold School for Arts and Science

**Integrating Math and Fine Art**

Motivate your students with lessons that integrate middle school math and an appreciation of works of art on display at the San Francisco de Young Museum. Students will manipulate ratios as they explore still life paintings. Le Collage des Tulipes provides an understanding of area ratios. Wayne Thiebaud’s chocolate cakes and Fredrick Remington’s sculptures have something in common - they’re the ‘hook’ for lessons on unit rates. Challenge your math students and then take a field trip to the de Young!

3-8 | INT | 553 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 6
Co-presenter: Caryl Hodges and Benjamin Wells

Resek, Diane — San Francisco State Univ.

**Teach Algebra Differently To Enhance Pre-Calculus Learning**

A new elementary algebra class for college students includes problems where students reveal and build on their prior knowledge. They engage in small group discourse that is necessary to understand mathematical concepts. Graduates had significantly higher passing rates than control students in pre-calculus. The ideas can be used with high school students who are repeating beginning algebra.

8-12 | INT | 248 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 29 | BT

Restivo, Nicholas — Executive Director, Mineola UFSD (Retired)

**Getting to the Core of Problem Solving**

Generate excitement among your students by modeling how to take risks in mathematical problem solving. Energize and enrich your curriculum by encouraging your students to dialogue with each other and reminding them that a real problem is not the same as a practice exercise. Through the use of problems with multiple solution paths, teachers will learn techniques that will help their students reduce the need to “cram” for any states’ assessments.

3-8 | INT | 254 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 36 | BT

Restivo, Nicholas — Executive Director, Mineola UFSD (Retired)

**Unraveling the Mysteries of Geometry by Building a Box**

Participants will transform used greeting cards into boxes useful for small item storage, and more importantly for delivering a better understanding of the relationships among perimeter, area and volume. A major goal is to give students a better understanding of geometry terms and the nuances of definitions involved with polygons with a special emphasis on families of quadrilaterals. Ratio and proportion are discussed as they relate to sizing the boxes.

3-8 | INT MITI | 547 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 28 | BT

Richman, Gena — Teacher, Mary Collins School at Cherry Valley

**Thinking Like a (Mathematically Inclined) Artist**

Join us as we guide you through a seamless integration of mathematics and the visual arts inspired by the artist, Mondrian. Our hands-on session will enliven and enrich your math class! Watch as your “canvas” becomes an aesthetic representation illustrating models of multiplication, perimeter, area and developing understanding of the commutative, associative, and distributive properties! Come and experience math through the arts. Non-artists are especially welcome for this cross-subject session.

3-5 | MITI | 350 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 32 | BT
Co-presenter: Liza Eichert — Teacher, Mary Collins School at Cherry Valley

Riehl, Jill — Teacher, Flintridge Preparatory School

**When Students Run the Show: Develop Magical Class Discourse**

Imagine a classroom where students confidently and enthusiastically solve math problems and discuss their ideas with each other, share their work in front of the class and shout with delight when they figure out how to solve a problem, think creatively, critically, and logically. This could be your classroom! We will outline strategies for improving classroom discourse and building a student-centered learning community that specifically highlights the Standards for Mathematical Practice.

8-12 | PRS | 236 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 7 | BT

Roberts, Christine — Mathematics Staff Development and Curriculum Specialist, Tulare COE

**One District’s Journey for Making the CCSSM a Reality**

Cycles of professional development, unit planning, and districtwide math routines have made the CCSSM a reality. View sample unit plans, report cards, assessments, and a strategies booklet used to support teachers on their implementation journey.

Ldrshp | PRS | 436 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 7 | BT
Co-presenter: Sophia Burr — District Math Coach, Dinuba Unified SD

Rogers, Patricia — Brownell MS

**Beauty in Mathematical Discourse**

Create mathematical discourse in your classroom through Formative Assessment Lessons (FALs). Focusing on the CCSS and the Standards for Mathematical Practice, these formative lessons are created to facilitate student-centered classrooms and support deeper learning. Come to learn how these lessons are structured and how you can begin using them as a part of every math unit you teach. Your students will learn to engage in meaningful mathematical conversations – listen to the sheer beauty!

GI | INT | 215 | Saturday, 9:30 - 10:30 | Asilomar, Triton | BT

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**CCSS MP6 Attend to Precision**

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**Speaker Evaluation Form**

Rossi Becker, Joanne — San Jose State Univ.
Activities to Exploit Seeing Structure and Generalization
Mathematical Practices 7 and 8: Look for and Make Use of Structure; and Look for and Express Regularity in Repeated Reasoning are inextricably linked practices. In this session you will view videos of middle school students engaging in problems that actuate these two practices. The importance of visualization will be evident in students’ ability to see structure and use it to generalize even if they do not yet have use of symbolic representations of patterns.
6-8  |  PRS  |  246  |  Saturday, 9:30 - 10:30  |  PG Middle School, Rm 27  |  BT

Ryan, Teresa — Mathematics Teacher, Vintage HS
Creating Critical Thinkers
Teachers will engage in activities and discussions which encourage respectful and thoughtful discourse among students in group setting and full class settings. Teachers will discuss ideas for encouraging thoughtful questioning and active engagement in conjecturing and justifying with strong arguments.
8-12  |  PRS  |  115  |  Saturday, 8:00 - 9:00  |  Asilomar, Triton  |  BT

Salguero, Katie — WestEd
Combining Practice and Content Standards: MP 7 as a Case Study
How are the Common Core Practices and Content Standards related? How can teachers modify and implement existing materials in a way that supports the Practices? In this session, we will consider these and related questions in the context of MP 7: Looking for and making use of structure. We will discuss what mathematical structure looks like in the context of different courses, what it means to make use of it, and the importance of this MP for all students.
8-12  |  INT  |  305  |  Saturday, 11:00 - 12:00  |  Asilomar, Evergreen  |  BT
Co-presenter: Angela Knotts — WestEd

Schaffer, Karl — Math Faculty, De Anza College
Polyhedra on a Shoestring
String figures, the imaginative designs created with simple loops of string, are found among the world’s most ancient cultures. The performance of string figures, with attention to their geometry, takes them naturally into the realms of dance and mathematics. We will see how to use large loops of rope to explore polygons and polyhedra, and also for creating surprising movement phrases. We will also use fingers and arms to create dance phrases that play with 2- and 3-dimensional geometry.
8-12  |  INT  |  335  |  Saturday, 3:30 - 5:00  |  PG Middle School, Auditorium  |  BT

Selby, Victor — Author/Curriculum Consultant, Carmel HS retired
Mathematics: So Beautiful It Can’t Be Expressed by Words
Discuss the four great symbol systems as with language, art, and music, we can “put on a show” with mathematics that enhances motivation for all students. From Pythagoras to the equations of the conic sections, connect the great ideas that have built civilizations. Use the nature of space to understand the poetry of Bucky Fuller and the applications of Design Science in our developing world. Attendees will receive a copy of my book Mathematics and The Human Condition.
8-12  |  PRS  |  439  |  Saturday, 1:30 - 3:00  |  PG Middle School, Rm 12  |  BT

Serra, Michael
Martin Gardner and the Mathematical Practices
Come join in celebrating the 100th anniversary of Martin Gardner’s Birth. Gardner introduced us to polyominoes, Escher tessellations, geometric dissections, reptiles, and much more. See how these topics can be used to support the mathematical practices and teach transformations in novel ways.
8-12  |  INT  |  230  |  Saturday, 9:30 - 10:30  |  PG Middle School, Library  |  BT

Shay, Brian — Math Teacher, San Dieguito Union HSD
Building Connections Through Authentic Tasks
Participants will delve deeply into rich, holistic tasks that promote student discourse and build connections within a course and across subjects. The tasks are from the new CA Framework and provide rich guidance about how to teach and assess the student understanding of the Math Practices and Content. Examples from middle and high school will be investigated.
8-12  |  INT  |  435  |  Saturday, 1:30 - 3:00  |  PG Middle School, Rm 6  |  BT

Sheldon, James — San Francisco State Univ.
From Individual Deficits to Complex Instruction
Everyone has had a student that didn’t succeed in mathematics no matter what they tried. Ordinarily, we would focus on the student’s deficits and refer them for specialized intervention. This interactive workshop offers an alternative by inviting teachers to reorient curriculum around multiple-ability, group worthy tasks. Teachers will experience complex instruction and reflect on how to use this approach so that all students can meaningfully participate in their classroom.
8-12  |  INT  |  539  |  Saturday, 3:30 - 5:00  |  PG Middle School, Rm 12  |  BT

Short, James — Secondary Math Specialist, Ventura COE
Creating a Classroom Culture of Enjoyable Problem Solving
How do we change a culture from math as knowing rules, to math as a way of reasoning, sense-making and problem solving? From valuing “giftedness” to valuing effort and growth? Ideas and activities to transform the culture of your classroom will be shared.
8-12  |  INT  |  507  |  Saturday, 3:30 - 5:00  |  Asilomar, Acacia  |  BT

Silverman, Sandy
Real World Sorting, Classifying and Patterning, K-1
Young children are naturally curious about the world around them. Use the real world as the basis to develop the sorting-classifying-patterning progression. Through this interactive session, understand the developmental sequence and apply it to your teaching tomorrow.
PK-2  |  INT  |  243  |  Saturday, 9:30 - 10:30  |  PG Middle School, Rm 24  |  BT

Smeltzer, Elisabeth — Teacher, Montera MS
Let’s Talk: Creating a Culture of Discourse in the Classroom
In the Common Core, we ask students to “construct viable arguments and critique the reasoning of others.” We can agree that hearing any student communicate in this way is amazing, but we need to get all students to engage in math discourse equitably. In this session, we will explore an instructional strategy called the Participation Quiz, which allows teachers to create a culture of mathematical discourse in their classrooms through public recognition of positive mathematical interactions.
6-8  |  PRS  |  156  |  Saturday, 8:00 - 9:00  |  PG Middle School, Rm 38  |  BT
Co-presenter: Krishna Feeney — Math Coach, Montera MS
Stadel, Andrew — Currie MS  
Get Students to Argue Through Number Sense Activities  
Get students to productively argue in class about math situations. Participate in number sense activities that require students to construct viable arguments, critique the reasoning of others, and use sense-making. Get ready to throw down. Free online resources.

3-8 | INT | 103 | Saturday, 8:00 - 9:00 | Asilomar, Heather | BT  

Tamez, Modesto — Museum Teacher, Exploratorium  
The Art and Mathematics of Mirrors  
This hands-on class will use inexpensive plastic mirrors, paper and coloring pencils to make beautiful geometric art with the following educational goals:  
- introduction to symmetry  
- find cultural connections  
- make angles fun and relevant to young students  
This class is advertised as a 3-8 level, but the activities can be used with much younger and older students.

3-8 | INT | 508 | Saturday, 3:30 - 5:00 | Asilomar, Toyon | BT  

Taylor, Megan — Sonoma State Univ.  
5th Tsuruda to (T)Sicherman: Great Problems for Common Core  
Great problems are plentiful in mathematics. But it can be difficult to know how and when to use them in courses and with existing curricula, especially as teachers adapt to the new demands of the California Common Core content standards and standards for mathematical practice. The reality is that the Common Core provides more space than ever for using rich, open-ended problems. Come to an “old” session with a new twist! And, as always, be prepared to do some math.

8-12 | INT | 418 | Saturday, 1:30 - 3:00 | Asilomar, Merrill Hall | BT  

Tobes, Jeff  
Discovering the Beauty of Mathematics While Walking  
Students learn to solve real-life math problems; map reading, measurement, perimeter, mph, ratio, decimals, fractions, time, and graphing while taking walks of 1-30 miles, as well as learning history, art, language, science and character building. By being organized with a clear purpose math objectives can be taught outside in the environment. The beautiful world becomes their classroom…step-by-step.

3-8 | INT | 515 | Saturday, 3:30 - 5:00 | Asilomar, Triton | BT  

Toncheff, Mona — Math Specialist, Phoenix Union HSD  
Intended Versus Enacted: How Do We Close the Gap?  
Are all students receiving high-quality mathematics instruction? Determine the leadership and instructional processes needed to implement the Common Core State Standards (CCSS) to ensure high-quality mathematics instruction for all students. See how one high school district engages Professional Learning Communities to close the implemented-enacted curriculum gap and transform classroom practices aligned to the CCSS.

Ldrsp | INT | 409 | Saturday, 1:30 - 3:00 | Asilomar, Marlin  

Trevino, Emma — Mathematics Program Coordinator, Charles A. Dana Ctr  
We Need to Reason Why: Division of Fractions  
Lets investigate how we model division of fractions through the Common Core State Standards. We will trace how to teach the development throughout the grades. The Standards for Mathematical Practice will also be addressed.

3-8 | INT | 551 | Saturday, 3:30 - 5:00 | Asilomar, Triton | BT  

Co-presenter: Carmen Whitman — Consultant, Mathematics For All Consulting  

3-8 | INT | 145 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 26 | BT  

Co-presenter: Amanda Dowdy Shannon Rudder — Teacher  

36x54 Co-presenter: Amanda Dowdy Shannon Rudder — Teacher  
36x65 3-8 | PRS | 145 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 26 | BT  

36x76 other students on paper and through the use of technology.

36x88 students develop their arguments and critiquing arguments of others through the completion of problems of the month. They will see the process developed by three middle grade teachers as students develop their arguments and critiquing arguments of other students on paper and through the use of technology.

36x99 will see the process developed by three middle grade teachers as students develop their arguments and critiquing arguments of others through the completion of problems of the month. They will see the process developed by three middle grade teachers as students develop their arguments and critiquing arguments of other students on paper and through the use of technology.

36x111 they know. Focuses primarily on Algebra I and Geometry but also covers prerequisite skills.

36x122 to use technology to support students with gaps in their prerequisite skills.

36x134 arguments. Learn teacher moves, strategies, and what mathematical modeling is and is not. Free online resources.

6-8 | INT | 503 | Saturday, 3:30 - 5:00 | Asilomar, Heather | BT  

36x146 and a growth mindset culture.

36x157 task structures that turn Mistake Analysis into a rich, equitable, and sustainable set of classroom practices. Participants will practice setting up the key elements and using these talk moves. We will also practice assigning competence to reinforce individual skills and a growth mindset culture.

36x181 communities…step-by-step.

8-12 | INT | 548 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 29 | BT  

36x210 transforming classroom practices aligned to the CCSS.

8-12 | INT | 544 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 25 | BT  

36x232 tasks that require mathematical modeling, sense-making, and the construction of viable arguments. Learn teacher moves, strategies, and what mathematical modeling is and is not. Free online resources.

36x244 to implement the Common Core State Standards (CCSS) to ensure high-quality mathematics instruction for all students. See how one high school district engages Professional Learning Communities to close the implemented-enacted curriculum gap and transform classroom practices aligned to the CCSS.

36x267 emotional minefield. This session will present new talk moves and strategies, and a growth mindset culture.

36x281 and use sense-making. Get ready to throw down. Free online resources.

36x293 to use technology to support students with gaps in their prerequisite skills.

8-12 | INT | 548 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 29 | BT  

36x313 mathematics while taking walks of 1-30 miles, as well as learning history, art, language, science and character building. By being organized with a clear purpose math objectives can be taught outside in the environment. The beautiful world becomes their classroom…step-by-step.

36x332 to use technology to support students with gaps in their prerequisite skills.

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36x973 to use technology to support students with gaps in their prerequisite skills.

36x984 to use technology to support students with gaps in their prerequisite skills.
The Quadrature of a Polygon with GeoGebra
The quadrature of a planar object means the construction of a square that has exactly the same area as the given object. Enjoy the beauty and the power of transformational geometry as some famous theorems come alive in the dynamic GeoGebra environment of the construction process.

8-12 | INT | 455 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 37 | BT

Beauty of Juicy Problems: Do Math Like You Mean It!
Focus on Math Practice #4 “Model with Mathematics”, so that students see the beautiful connections between expressions, equations, and representations as they solve contextual problems.

6-8 | INT | 533 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 4 | BT

Exploring Fractions Through Number Talks
Participants will explore fraction understanding through interesting, open-ended questions that invoke reasoning to develop a deep understanding of fraction and their relationships. Number Talks are a 10-15 min. daily routine designed to build number sense through flexible computation strategies using structured, student-led conversations. This session is perfect for those who are new to Number Talks or are interested in expanding their current routines to include problems with fractions.

3-8 | INT | 246 | Saturday, 11:00 - 12:00 | PG Middle School, Library | BT
Co-presenter: Shelah Feldstein — Mathematics Curriculum Development and Staff Support, Tulare COE

Words That Count: Language in Math Teaching and Learning
Language matters more to math teaching and learning than we sometimes realize. In this session we will look at three facets of language that make math comprehensible and engaging. We will explore problem solving activities designed to help students get good at mathematical practices and the central role of sense making in that process. This session will draw on insights from the Math Forum's experience mentoring thousands of students in the Problems of the Week program.

8-12 | INT | 405 | Saturday, 1:30 - 3:00 | Asilomar, Evergreen

Beauty in Mathematical Sculptures
In 2011 I took a sabbatical leave to study the works of some renowned artists and to create sculptures of my own. This has all been organized into a publicly available web site with photos, explanations and problem sets that are appropriate at many levels. In 2013 I retired and have continued to work on more mathematically inspired sculptures. The session will be a photographic journey intended to inspire teachers and their students to explore some new and exciting facets of mathematical beauty.

GI | PRS | 406 | Saturday, 1:30 - 3:00 | Asilomar, Scripps Conference | BT

Learn new instructional strategies to help your students develop strong pre-algebraic reasoning skills. This session will demonstrate the process of simplifying algebraic word problems to provide access to students in lower grades meeting the Common Core Practice Standards of persevering, modeling with mathematics, reasoning abstractly and quantitatively. Participants will be utilizing concrete materials, drawing models themselves and learning how to differentiate instruction.

3-8 | INT | 310 | Saturday, 11:00 - 12:00 | Asilomar, Curlew | BT

Let’s Connect Proportional Reasoning with the Standards
How do the Common Core State Standards address proportionality? Let’s examine lessons that incorporate proportional reasoning as we teach the different domains. These lessons provide questions for students that are struggling, students that are on task, and questions to extend student thinking. Additionally the lessons will also exemplify the Standards for Mathematical Practice.

3-8 | INT | 451 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 33 | BT
Co-presenter: Emma Trevino — Program Coordinator, Univ. of Texas at Austin

Learn new strategies to give your students the gift of mental math computations. Mental Math develops number sense; solidifies understanding of Place Value; builds confidence; develops memory and fact fluency; great for auditory learners and can be used anywhere and anytime.

PK-5 | PRS | 210 | Saturday, 9:30 - 10:30 | Asilomar, Curlew | BT

Learn new instructional strategies to help your students develop strong pre-algebraic reasoning skills. This session will demonstrate the process of simplifying algebraic word problems to provide access to students in lower grades meeting the Common Core Practice Standards of persevering, modeling with mathematics, reasoning abstractly and quantitatively. Participants will be utilizing concrete materials, drawing models themselves and learning how to differentiate instruction.

3-8 | INT | 310 | Saturday, 11:00 - 12:00 | Asilomar, Curlew | BT

Learn new instructional strategies to help your students develop strong pre-algebraic reasoning skills. This session will demonstrate the process of simplifying algebraic word problems to provide access to students in lower grades meeting the Common Core Practice Standards of persevering, modeling with mathematics, reasoning abstractly and quantitatively. Participants will be utilizing concrete materials, drawing models themselves and learning how to differentiate instruction.

3-8 | INT | 310 | Saturday, 11:00 - 12:00 | Asilomar, Curlew | BT

Learn new instructional strategies to help your students develop strong pre-algebraic reasoning skills. This session will demonstrate the process of simplifying algebraic word problems to provide access to students in lower grades meeting the Common Core Practice Standards of persevering, modeling with mathematics, reasoning abstractly and quantitatively. Participants will be utilizing concrete materials, drawing models themselves and learning how to differentiate instruction.

3-8 | INT | 310 | Saturday, 11:00 - 12:00 | Asilomar, Curlew | BT
Wilson, Johnnie — Teacher Educator, UC Santa Cruz
Words That Count: Language in Math Teaching and Learning
Language matters more to math teaching and learning than we sometimes realize. In this session we will look at three facets of language that make math comprehensible and engaging. We will look at the relationship between students’ everyday language and the expectations we have for academic language. We will look at questioning strategies that promote discussion and critical thinking. We will look at how gesture and sign language add to our ability to share our mathematical ideas.
3-8 | PRS | 208 | Saturday, 9:30 - 10:30 | Asilomar, Nautilus West | BT

Wolfson, Fara — Math/Special Education Teacher, Homewood Center
The Common Core and Beyond: Beauty in the Math of Labyrinths
A labyrinth is a different type of math circle with layers of beauty and a ripple effect on students’ engagement as they direct their own learning. Exploring labyrinths gives educators the opportunity to address multiple common core standards including measurement, proportionality, and geometry. Students are engaged in a meaningful mathematical experience while simultaneously developing their communication skills, tapping into their creativity, and enhancing their problem-solving abilities.
6-8 | INT | 545 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 26 | BT

Wong, Justine — KM2A
Math for Developing Minds and Training Brains
We’ll look at ways to reuse, recycle, and repurpose ideas and materials in a pre-kindergarten and kindergarten classroom to create the foundation for the following mathematical practices in a developmentally appropriate way:
• How to use common items to make sense of problems
• How to develop perseverance in solving problem
• How to look for and make use of structure
PK-2 | INT | 117 | Saturday, 8:00 - 9:00 | Asilomar, Nautilus West | BT

Wurch-Goldenson, Kari — Math Teacher, Happy Valley ES
Engaging All Students: An Equitable Approach to Honors Math
Session Outcomes:
• Understand the reasons and rationale for Honors Math for ALL students
• Understand how to incorporate cooperative/collaborative learning in math classes
• Understand how to involve ALL students in rigorous math curriculum and instruction
• See, hear, and experience instruction, student involvement and interaction in an Honors Math classroom
• Trust that learning happens in different ways at different paces for both students and teacher
6-8 | INT | 530 | Saturday, 3:30 - 5:00 | PG Middle School, Library | BT
Co-presenter: Brian Gaddy — Math Teacher, Happy Valley ES

Yakes, Christopher — Associate Professor, CSU Chico
CCSS Topic Sequencing for Pre-Service Middle School Teachers
The development of ideas in CCSS-M takes a logical path starting with the development of ratio and proportion in grades 6-8 as a means to understanding linear functions. The speakers describe the content changes needed in the education of pre-service teachers to prepare them to understand this logical development when teaching and make appropriate choices of curricular materials. This talk is relevant to college faculty, mathematics leaders and professional development providers, and teachers.
Tchr Ed | PRS | 445 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 26 | BT
Co-presenter: Mary Elizabeth Matthews — Assistant Professor, CSU Chico

Yu, Julie — Staff Scientist, Exploratorium
The Many Pieces of Pi
Despite being so irrational, pi is loved by all. More than just a tool for figuring out how much pizza you’re getting, pi is useful in many areas of math and science. Come do transcendental hands-on activities that show some of the ways pi appears in our natural world. We’ll discover pi not only with circles, but also hidden in a line and by throwing toothpicks. Gain ideas for celebrating Pi Day and see how pi shows up whether you’re teaching graphing, geometry, probability, or calculus.
8-12 | INT | 308 | Saturday, 11:00 - 12:00 | Asilomar, Toyon | BT

Zahner, William — SDSU; TODOS
Understanding the CCSS-MP “Attend to Precision” for ELs
How can teachers of linguistically diverse groups of students meet the CCSSM practice standard “Attend to Precision”? This interactive session combines research, insights into the design of CCSSM, and video case studies from algebra classrooms to consider strategies for meeting this standard with English Learners. Participants will collaboratively do a reasoning task that they can use with their students and discuss how other reasoning tasks can be designed using similar principles.
8-12 | W | 140 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 13 | BT

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.
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California Mathematics Council – North

Certificate of Attendance

is hereby granted to:

in recognition of attendance and participation at the

CMC-N Mathematics Conference at Asilomar
Pacific Grove, CA
December 5 – December 7, 2014

April Goodman-Orcutt
April Goodman-Orcutt, CMC-N President
### EXHIBITS

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Pacific Grove Middle School  Friday / 5:15 - 7:30 p.m.    Saturday / 8:00 a.m. - 6:00 p.m.
Exhibits close promptly at times listed above so visit early!

---

~ 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 hall.
Note:
- All Spaces Are 6'-6" Unless Otherwise Noted
- (68) Total Spaces
- All Aisles Are As Noted
- **Presidential Awards**, [www.cmc-math.org/PAEMST](http://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.

**2015 Secondary Teacher Nominations**
Elementary and secondary awards are alternating. The nominations for the 2014 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

- **Announcing the 2014 PAEMST Finalists**
  **Andrew Kotko**
  Andrew is a first grade teacher at Mather Heights Elementary in the Folsom Cordova Unified School District. He has been teaching eleven years. He achieved National Board Certification in 2007. In March, 2014 he spoke to members of the US Congress on behalf of the National Board “advocating for increased concentration of certified teachers and mirroring the medical residency model in teacher prep.” He also serves as vice-chair of the California Teacher Advisory Council. He is a previous California PAEMST finalist (2012). The topic he chose to teach in his lesson was that of base-ten place value.

  **Sara Norris**
  Sara is a first grade teacher at the Mills College Children’s School in Oakland, California. She has been teaching ten years. She has been highly involved in the Lesson Study Collaboration at Mills College and was a Co-presenter of Listening for Learning: Reflections on Two Years of Lesson Study Collaboration in Mathematics at the Conference of the International Association of Laboratory and University Affiliated Schools in Pittsburg, PA in 2011. She is a previous California PAEMST finalist (2012). The topic she chose to teach in her lesson was that of regrouping.

- **California Math Council, [www.cmc-math.org/awards](http://www.cmc-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.

- **2014 Polya Award**
The George Polya Memorial Award may be conferred upon the teacher or teachers, K-12, who have been deemed as outstanding teachers of mathematics over a sustained period of time, have supported CMC activities, have been active participants in CMC, and have high visibility throughout the state of California. This year’s awardee is **April Goodman-Orcutt**.

  For over a dozen years, not only has April been an outstanding math teacher, she has been an active participant in CMC leadership and has had high visibility throughout California. Her contributions include:
  - Current CMC-N President; Current mathematics teacher, Joaquin Miller Middle School, San Jose, CA; Current treasurer for Santa Clara Valley Mathematics Association; Former CMC-State Treasurer; Former CMC-N Conference Chair; Former CMC-N Asilomar Conference speaker.

For more information about awards, or to nominate, visit Presidential Awards at [www.cmc-math.org/PAEMST](http://www.cmc-math.org/PAEMST) or California Math Council at [www.cmc-math.org/awards](http://www.cmc-math.org/awards)
IGNITE!
Saturday 7:30 pm
Merrill Hall
@ddmeyer, emcee

@ArjanKhalsa • @btwthenumbers • @MFAnnie
@cheesemonkeysf • @geometrywiz • @javgarcı • @mjfenton
@maxmathforum • @MrBrianShay • @msnurdoesmath

5 minutes. 20 slides. Lots of ideas.

www.cmc-math.org

@themathforum & @CAMathCouncil
December 13, 2014
SCVMA Senior Olympiad at Miller Middle School
Rita Korsunsky, rikorsunsky@gmail.com

February 7, 2015
CMSESMEC STEM Conference
San Mateo County Office of Education
Brennan Brockbank, brennan.brockbank@gmail.com
http://cmesesmc.org/events/stem-conference.html

February 12-14, 2015
AMTE Annual Conference, Orlando FL

March 2015
San Mateo County STEM Fair, Hiller Aviation Museum
Brennan Brockbank, brennan.brockbank@gmail.com
http://stemfair.net/

March 14, 2015
SCVMA Math Field Day at West Valley Community College
Rita Korsunsky, rikorsunsky@gmail.com

March 23, 2015
Monterey Bay Counties Math Education (MBCME)
David Foster, “The Decisions and Shifts Required by the Common Core State Standards”, at the Monterey County Office of Education, Susan Castillo (scastill@monterey.k12.ca.us)
http://monterey.k12oms.org/1519-89248

April 13-15, 2015
NCSM Annual Meeting, Boston, MA

April 15-18, 2015
NCTM Annual Meeting and Exposition, Boston, MA

November 6-7, 2015
CMC-S Palm Springs Conference, Palm Springs, CA

December 11-13, 2015
CMC-N Asilomar Conference, Pacific Grove, CA

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

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

Be sure to make time in your schedule to visit the exhibits at the Pacific Grove Middle School Gym. 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 exhibit hall on page 39.
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

√ Must be current members
√ Can only apply once per school year
√ Should have additional sources of funding
√ 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 affected?
   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.


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

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.
California Mathematics Council - Northern Section

Mini-Grant Deadlines: January 31 - $500
November 1 - $500

Title of Grant ________________________________________________________________

Name of Grant Leader: __________________________________________ CMC Member # ____________

Home phone: ( ) ___________________________ Home e-mail: _______________________________

School name: ________________________________________________________________

School address: ___________________________________________ Fax: ___________________________

School e-mail: ______________________________________________________________

The Grant will impact the following:

Number of students: __________

Number of teachers: __________

Percent members of minorities: __________

Maximum amount requested to implement the grant: ____________________________

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 ________________________________________________________________

Building Site Administrator Name and Title __________________________________________

Send to:

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

√ Earn 1.5 quarter hours (= 1 sem hr) of college credit for your Asilomar participation.
√ 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.
√ 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.
√ Grades are CR/NC only.
√ 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 www.cmc-math.org/activities/north_conference.html.
   Complete the form on your computer. Then print, sign, and mail with your payment in the amount of $145.00 (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 the 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:
Dr. Jean Simutis
Dept. of Mathematics and Computer Science
CSU East Bay
Hayward, CA 94542
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∞)
Mary Ann Sheridan, masheris@suddenlink.net

Mt. Lassen Math Council (MLMC)
Dawn Burhans, iluvabcz@sbcglobal.net

Sonoma County Math Council (SCMC)
Ben Ford, ben.ford@sonoma.edu

Sacramento Area Math Educators (SAME)
Brian Lim, blim128@yahoo.com

Math Educators of Solano County (MESC)
Julie Crozier, crozier4mesc@aol.com

Alameda Contra Costa County
Math Educators (AC³ME)
David Lincoln, lincoln.hotmath@att.net

Council of Math & Science Educators
San Mateo County (CMSESMC)
Brennan Brockbank, brennan.brockman@gmail.com

Santa Clara Valley Math Association (SCVMA)
Rita Korsunsky, rikorsunsky@gmail.com

Monterey Bay Counties Math Education (MBCME)
Linda Dilger, ldlilger@monterey.k12.ca.us

Northern Nevada Mathematics Council (N²MC)
Teruni Lamberg, terunil@unr.edu

San Francisco Math Teachers Association (SFMTA)
Mark Mosheim, Mosheim@gmail.com
On Friday, bus service will run between the Asilomar grounds and Pacific Grove Middle School from 4:00-9:30 p.m. Busses will run between Asilomar and Pacific Grove Middle School and 7:15 a.m. - 6:00 p.m. on Saturday.