"Getting at the Core of the Mathematical Practices"
Friday, December 11 - Sunday, December 13, 2015
Asilomar Conference Grounds • Pacific Grove Middle School, Pacific Grove

THE SPIRAL OF THEODORUS

"Getting at the Core of the Mathematical Practices. It is a progress in spirals." Madame de Stael

For activities related to the Wheel of Theodorus see page 45.
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!

Conference Evaluation Form Online
Visit [https://www.surveymonkey.com/r/CMC-NorthConferenceEvaluation](https://www.surveymonkey.com/r/CMC-NorthConferenceEvaluation) by December 31, 2015 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 Jordan Johnson and Debra Hughes.

A Special Thanks To!

<table>
<thead>
<tr>
<th>Conference Coordinator</th>
<th>Registration</th>
<th>Program Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>April Goodman-Orcutt</td>
<td>Julie Crozier</td>
<td>Ana England</td>
</tr>
<tr>
<td>Pacific Grove Middle School Coordinators</td>
<td>Pacific Grove Middle School Tech Coordinator</td>
<td></td>
</tr>
<tr>
<td>Ivy Kong, Susan Stegge</td>
<td>Grayson Fong</td>
<td>Connie Anderson</td>
</tr>
<tr>
<td>Speaker</td>
<td>Topic</td>
<td>Grade Level</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Asturias, Harold</td>
<td>Linking Language to Learning, Agency, Authority &amp; Identity</td>
<td>Equity</td>
</tr>
<tr>
<td>Bambao, Kim</td>
<td>Developing Number Sense in Pre-K to 3rd Grade Through Counting</td>
<td>PK-3</td>
</tr>
<tr>
<td>Cagle, Peg</td>
<td>Taking Action to Build a Better Profession, No Matter Your Title or Job Description</td>
<td>Ldrshp</td>
</tr>
<tr>
<td>Leinwand, Steve</td>
<td>Breathing Classroom Life into the NCTM Teaching Practices</td>
<td>GI</td>
</tr>
<tr>
<td>Luberoff, Eli</td>
<td>Design Principles for Digital Content</td>
<td>Tech</td>
</tr>
<tr>
<td>Parker, Ruth</td>
<td>Changing the Classroom Culture Through Number Talks</td>
<td>4-14</td>
</tr>
<tr>
<td>Shreve, Barbara Carlos Cabana</td>
<td>When the Task Is Not Enough: Pedagogy That Builds SMPs</td>
<td>GI</td>
</tr>
</tbody>
</table>

**Friday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00-7:00 PM</td>
<td>Registration <em>(Mini Conference participants can pick up their bags at noon.)</em></td>
<td>Surf &amp; Sand, Asilomar</td>
</tr>
<tr>
<td>4:00-6:00 PM</td>
<td>Newcomers’ Session <em>(20 minute repeating presentations)</em></td>
<td>Triton</td>
</tr>
<tr>
<td>5:30-7:30 PM</td>
<td>Exhibits <em>(materials for purchase)</em></td>
<td>Gym, Pacific Grove MS</td>
</tr>
<tr>
<td>6:00-7:00 PM</td>
<td>Dinner</td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td><strong>7:30-9:00 PM</strong></td>
<td><strong>KEYNOTE SESSION:</strong> <em>(information on page 7)</em> Matt Larson, NCTM - Overcoming Obstacles to Make Mathematics Work for All!**</td>
<td>Auditorium, Pacific Grove MS</td>
</tr>
<tr>
<td>7:00-8:15 AM</td>
<td>Breakfast</td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td>7:30 AM-12:00 PM</td>
<td>Registration and Bag Pick-up <em>(Bag pick-up only at Pacific Grove Middle School)</em></td>
<td>Surf &amp; Sand, Asilomar</td>
</tr>
<tr>
<td>7:45-9:00 AM</td>
<td>Newcomers’ Session <em>(20 minute repeating presentations)</em></td>
<td>Triton &amp; PGMS Auditorium</td>
</tr>
<tr>
<td>7:30 AM-5:30 PM</td>
<td>Exhibits <em>(materials for purchase)</em></td>
<td>Gym, Pacific Grove MS</td>
</tr>
<tr>
<td>8:00 AM-12:00 PM</td>
<td>Sessions <em>(matrix begins on page 10, speaker section begins on page 14)</em></td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td>12:00-1:30 PM</td>
<td>Lunch <em>(refer to page 4)</em></td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td>1:30-5:00 PM</td>
<td>Sessions <em>(matrix begins on page 10, speaker section begins on page 14)</em></td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td>6:00-7:00 PM</td>
<td>Dinner</td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td>7:30-10:00 PM</td>
<td><strong>Ignite! and President’s Party</strong> <em>(Everyone Welcome!)</em></td>
<td>Merrill Hall, Asilomar</td>
</tr>
<tr>
<td>7:30-9:00 AM</td>
<td>Breakfast <em>(pickup box lunch)</em></td>
<td>Dining Hall, Asilomar</td>
</tr>
<tr>
<td>8:00-8:45 AM</td>
<td>CMC-N Membership Meeting</td>
<td>Surf &amp; Sand, Asilomar</td>
</tr>
<tr>
<td><strong>9:00-10:15 AM</strong></td>
<td><strong>MORNING KEYNOTE SESSION:</strong> Grace Kelemanik — The Eight Standards for Mathematical Practice: Overwhelming and Under Realized**</td>
<td>Merrill Hall, Asilomar</td>
</tr>
<tr>
<td>10:15-10:45 AM</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td><strong>10:45 AM - Noon</strong></td>
<td><strong>MID-MORNING KEYNOTE SESSION:</strong> Steven Leinwand — Teaching Math: Insights &amp; Reflections on &gt; 1000 Observations**</td>
<td>Merrill Hall, Asilomar</td>
</tr>
</tbody>
</table>
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! (Steve Weimer, 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 on-stage and talk about something they are passionate about! Stay for the President’s Party afterwards.
Co-presenters: Harold Asturias, Annie Fetter, Susie Hakansson, Rebecca Lewis, John Mahlstadt, Max Ray-Riek, Mary Reynolds, David Rosenthal, Chris Shore, 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 Triton, Friday between 4:00 and 6:00pm, or Triton and PGMS Auditorium, 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.

Hand Games, Logic Games, and Games for Practice!
Pacific Grove Middle School Library
Game on! Each hour during the day different elementary, middle, and high school teachers will share games they have been using with their students. There are games for practice, strategy games from the CornMuniCator, and hand games. Different games will be played and highlighted each hour.

Social Gathering
CMC-Central is hosting a social gathering from 5:00-7:00pm on Saturday in Evergreen.
(Heavy hors d’oeuvres will be served.)

Hand2Mind Manipulative Playground
Pacific Grove Middle School Library
Come drop in and see how you can use manipulatives in your classroom lessons!
8:00  |  Fraction Sense
9:30  |  Geometric Concepts
11:00 |  Number Sense, Place Value
1:30  |  Open Playground
### Sessions
You will find three 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 Triton, Friday between 5:30 and 7:00 pm or Saturday between 7:30 am and 5:30 pm 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.

- **Friday**
  - PGrove M5: 5:30 - 7:30 pm
  - Saturday: PGrove M5: 7:30 am - 5:30 pm

### 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.

### Bus Service
Bus service will run between the Asilomar grounds and Pacific Grove Middle School on Friday from 4:00-9:30 pm and on Saturday from 7:15 am - 6:00 pm

### Electronic Devices
Out of respect for presenters and other participants, please turn off electronic devices during sessions.
Kick-Off Mini-Conference
Asilomar, 1:30-4:30pm
Friday

Asturias, Harold — Honorable Past President of CMC, UC Berkeley
Linking Language to Learning, Agency, Authority & Identity
Finding ways to provide ALL students access and opportunity to wrestle with, make sense of, and communicate about
important mathematics is the focus of this mini session. We will discuss how to ensure equitable instructional practices that
provide students access to the knowledge and skills they need to be successful in school and beyond.  
Equity | PRS | Oak Shelter

Bambao, Kim — San Mateo COE and
Kathy Liu Sun — Santa Clara Univ
Developing Number Sense in Pre-K to 3rd Grade Through Counting
Deepen your understanding of how to support student development of number sense in Pre-K to 3rd grade by engaging in
a hands-on and meaningful counting activity. We will watch videos of students engaged in counting and discuss students’
mathematical thinking in relation to counting and their development of quantity and number sense. We will also discuss
strategies for how to elicit and respond to student thinking and share ideas for adapting the counting activity for your
classrooms.  
PK-3 | INT | Acacia

Cagle, Peg
Taking Action to Build a Better Profession, No Matter Your Title or Job Description
Come with an aspiration, leave with an action plan. Take stock of your current place within the mathematics education
landscape and identify any untapped potential, under-developed opportunities and possible impediments to moving from
aspiration to reality. Then join with others committed to improving the teaching and learning of school math to identify,
capitalize on, expand, and create pathways for elevating your contributions and those of your colleagues, without being
constrained or defined by your official daily job.  
Ldrshp | PRS | Evergreen

Leinwand, Steve — Research Analyst at AIR
Breathing Classroom Life into the NCTM Teaching Practices
We can summarize the 8 Principles to Actions’ Mathematical Teaching Practices as goals, tasks, representations, discourse,
questioning, fluency, struggle and evidence. This fast-paced, example-laden workshop will provide examples by which we will
model and then discuss each of these critical research-affirmed practices for impactful instruction. Just like a great class, we’ll
play and learn.  
GI | INT | Toyon

Luberoff, Eli — Founder, DESMOS
Design Principles for Digital Content
Technology opens up a vast, largely unexplored world for curriculum design. It also introduces a litany of new constraints. What is
lost when moving a lesson from paper to computers? What can be gained? Explore these questions with Eli Luberoff, founder of
Desmos. We’ll begin by covering the principles that have governed Desmos’ content development so far and work together through
a few activities from teacher.desmos.com. We’ll finish by collaboratively developing our own set of design principles for digital
content.  
Tech | PRS | Tech | Nautilus West

Parker, Ruth — Math Collaborative
Changing the Classroom Culture Through Number Talks
Engage in Number Talks and examine the deep shifts in classroom culture that this daily practice promotes. Experience Number
Talks with whole numbers and other rational numbers.  
4-14 | INT | Nautilus East | BT

Shreve, Barbara — Mathematics Coordinator, Oakland and
Carlos Cabana — Math Teacher, Life Academy of Health and Bioscience
When the Task Is Not Enough: Pedagogy That Builds SMPs
Students’ development of the Mathematical Practices is influenced by not only the tasks we give them, but by how we set
up students to authentically contribute to mathematical sense-making. In this workshop we will share our learning about
Complex Instruction, a pedagogy that supports teachers to build from students’ diverse strengths, and to address status
issues that can hinder students’ development of the SMPs. Come ready to experience a CI classroom, and leave with a new
take on the SMPs!  
GI | INT | Heather | BT
**KEYNOTE SESSIONS**

**FRIDAY EVENING — PACIFIC GROVE MIDDLE SCHOOL, AUDITORIUM**

7:30 - 9:00

- **Dr. Matt Larson, President-Elect NCTM**
  - **Overcoming Obstacles to Make Mathematics Work for All!**
  
  Matt Larson has served as the K-12 mathematics curriculum specialist for the Lincoln Public Schools in Nebraska, was a member of the writing team for the NCTM publication Principles to Actions: Ensuring Mathematical Success for All, and is currently President-Elect of NCTM. He is the co-author of numerous journal articles, professional books, textbooks, and has taught mathematics at the secondary and college levels.

  In order to raise the achievement of all students and simultaneously close learning differentials, improvement efforts must simultaneously address six necessary program shifts as well as persistent obstacles that have stood in the way of making mathematics work for all students. This session will address specific actions you can take to overcome these obstacles, implement highly effective mathematics programs, and ensure that mathematics works for all students!

---

**SUNDAY MORNING — ASIOMAR, MERRILL HALL**

9:00 - 10:15

- **Grace Kelemanik, Teacher Educator, Boston Teacher Residency Program**
  - **The Eight Standards for Mathematical Practice: Overwhelming and Under Realized**

  Grace works with districts and schools grappling with issues related to quality implementation of the Common Core State Standards. She is particularly concerned with engaging special populations, including English Language Learners and students with learning disabilities, in the mathematical thinking and reasoning embodied in the Mathematical Practices.

  This session will make the case for and offer a viable approach to placing the math practices at the center of math learning and doing. Starting from the assumption that not all math practices are equal, I will describe how the eight math practices work together as a constellation of practices, serving different roles in students’ mathematical reasoning.

10:45 - NOON

- **Steve Leinwand, Principal Research Analyst at AIR**
  - **Teaching Math: Insights and Reflections on >1000 Observations**

  Steve Leinwand currently serves as mathematics expert on a wide range of AIR projects that turn around schools, improve adult education, evaluate programs, develop assessments and provide technical assistance. Steve has also served on the NCTM Board of Directors and has been President of the National Council of Supervisors of Mathematics. He has authored of several mathematics textbooks and numerous articles.

  I have been blessed with an ever-growing database of more than 1000 K-12 mathematics class observations since 2010. This session is my initial attempt to capture some of what I’ve learned and what can be transported to every classroom. We’ll use specific examples to look at ongoing cumulative review, homework, saying vs. showing, formative assessment, questions and tasks that either numb or energize our neurons, planning, and the power of constructing viable arguments.
### SATURDAY HIGHLIGHTED SESSIONS

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Session</th>
<th>Grade Level</th>
<th>Type</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:00</td>
<td>Gail Burill</td>
<td>Instruction That Makes a Difference</td>
<td>6-8</td>
<td>INT</td>
<td>Nautilus West</td>
</tr>
<tr>
<td></td>
<td>Annie Fetter</td>
<td>Using Technology to Foster Conceptual Understanding</td>
<td>6-8</td>
<td>PRS</td>
<td>Merrill Hall</td>
</tr>
<tr>
<td></td>
<td>Arjan Khalsa</td>
<td>Unraveling Whole Numbers and Fractions on the Number Line</td>
<td>3-5</td>
<td>INT</td>
<td>Toyon</td>
</tr>
<tr>
<td>9:30 - 10:30</td>
<td>Scott Farrand</td>
<td>Choose Examples to Promote Conjectures</td>
<td>8-12</td>
<td>PRS</td>
<td>Heather</td>
</tr>
<tr>
<td></td>
<td>Phil Daro</td>
<td>Using Progressions to Make Progress</td>
<td>GI</td>
<td>PRS</td>
<td>Merrill Hall</td>
</tr>
<tr>
<td></td>
<td>Steve Leinwand</td>
<td>Mathematics Coaching: An Essential Component of Quality</td>
<td>GI</td>
<td>PRS</td>
<td>PGMS Auditorium</td>
</tr>
<tr>
<td>11:00 - 12:00</td>
<td>Paul Giganti</td>
<td>Optical Art for Kids</td>
<td>3-8</td>
<td>PRS</td>
<td>Scripps</td>
</tr>
<tr>
<td></td>
<td>Patrick Callahan</td>
<td>Let’s Talk About Tests</td>
<td>GI</td>
<td>PRS</td>
<td>Merrill Hall</td>
</tr>
<tr>
<td></td>
<td>David Foster</td>
<td>Supporting Students in Agency, Identity and Authority</td>
<td>GI</td>
<td>INT</td>
<td>PGMS Auditorium</td>
</tr>
<tr>
<td>13:00 - 3:00</td>
<td>Megan Taylor</td>
<td>More Effective Assessments, More Effective Assessment Use</td>
<td>8-12</td>
<td>INT</td>
<td>Heather</td>
</tr>
<tr>
<td></td>
<td>Andrew Stadel</td>
<td>Math Mistakes and Error Analysis: Diamonds in the Rough</td>
<td>6-8</td>
<td>INT</td>
<td>Merrill Hall</td>
</tr>
<tr>
<td></td>
<td>Ruth Parker</td>
<td>Bringing the SMP to Life in Classrooms</td>
<td>GI</td>
<td>INT</td>
<td>PGMS Auditorium</td>
</tr>
<tr>
<td>3:30 - 5:00</td>
<td>Michael Serra</td>
<td>One’s Good, But More Is Better</td>
<td>8-12</td>
<td>INT</td>
<td>Heather</td>
</tr>
<tr>
<td></td>
<td>Robert Kaplinsky</td>
<td>How Old Is the Shepherd?</td>
<td>6-8</td>
<td>INT</td>
<td>Merrill Hall</td>
</tr>
<tr>
<td></td>
<td>Max Ray</td>
<td>Practicing the Five Practices Using Archived Student Work</td>
<td>3-8</td>
<td>INT</td>
<td>PGMS Auditorium</td>
</tr>
</tbody>
</table>

### CALL FOR SPEAKERS

**CMC-North 58th Annual Conference**
Asilomar and Pacific Grove Middle School, Pacific Grove

**The Mathematical Practices: A Reality in Every Classroom**

December 2-4, 2016

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, 2016. 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.

### 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:

- Chris Tsuji
  CMC Student Activities Trust Fund
  670 Choctaw Drive, San Jose, CA 95123

**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.
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.

Please plan accordingly and choose a couple sessions at the same site you’d like to attend. This will save you time by not having to make a last minute choice. It’s possible a session has reached room capacity, or was cancelled after this program went to print.

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker / Topic</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00-7:00 PM</td>
<td>Dinner</td>
<td>Dining Hall, Asilomar</td>
</tr>
</tbody>
</table>
| 7:30-9:00 PM | **Keynote Session** (information on page 7)  
Dr. Matt Larson — Overcoming Obstacles to Make Mathematics Work for All | Auditorium, Pacific Grove MS |
| 7:00-8:15 AM | Breakfast      | Dining Hall, Asilomar             |
| 8:00-9:00 AM | 1st Choice:    |                                   |
| 9:30-10:30 AM | 1st Choice:    |                                   |
| 11:00 AM-12:00 PM | 1st Choice: |                                   |
| 12:00-1:30 PM | Lunch / Exhibits |                                 |
| 1:30-3:00 PM | 1st Choice:    |                                   |
| 3:30-5:00 PM | 1st Choice:    |                                   |
| 6:00-7:00 PM | Dinner         | Dining Hall, Asilomar             |
| 7:30-10:00 PM | **Ignite! and President’s Party** - Everyone Welcome! (information on page 4) | Merrill Hall, Asilomar |
| 7:30-9:00 AM | Breakfast      | Dining Hall, Asilomar             |
| 9:00-10:15 AM | **Morning Keynote Session** (information on page 7)  
Grace Kelemanik — The Eight Standards for Mathematical Practice: Overwhelming and Under Realized | Merrill Hall, Asilomar |
| 10:45 AM-Noon | **Mid-Morning Keynote Session** (information on page 7)  
Steve Leinwand — Teaching Math: Insights and Reflections on >1000 Observations | Merrill Hall, Asilomar |
## Asilomar Conference Grounds—Saturday Sessions

<table>
<thead>
<tr>
<th>Facility</th>
<th>8:00 - 9:00</th>
<th>9:30 - 10:30</th>
<th>11:00 - 12:00</th>
<th>1:30 - 3:00</th>
<th>3:30 - 5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fireside</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Shelter</td>
<td>Elizabeth Gamino Mathematics for Students Via Professional Noticing PK-2</td>
<td>Caryl Pierson 4 Essential Elements of RTI for Multiplication and Division 6-8</td>
<td>Stephanie Biagetti Facilitating Constructive Math Conversations PK-2</td>
<td>Jeanne Ramos Developing Students Algebraic Thinking and Academic Language 6-8</td>
<td>Joan Easterday Statistics: Gummy Worms, Rubber Band Cars, and Cubits 3-5</td>
</tr>
<tr>
<td>Seats 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Evergreen</strong></td>
<td>Gloria Brown Brooks Problem Solving with English Language Learners G1</td>
<td>Jennifer Oloff-Lewis Engaging Students in Open-Ended Tasks 3-5</td>
<td>Julie Yu The Math of Mirrors 8-12</td>
<td>Suzanne Damm Math: A Topic Worth Discussing Teachers and Students Talk 6-8</td>
<td>Tammy Schultz Creating a Motivating Math Environment PK-5</td>
</tr>
<tr>
<td>Seats 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heather</strong></td>
<td>Lizzy Hull Barnes Bay Area Secondary Partners: San Francisco and Oakland Ldrshp</td>
<td>Scott Farrant Choose Examples to Promote Conjectures 8-12</td>
<td>Kenji Hakuta Finally! Giving Students a Voice in Mathematics Classrooms Ldrshp</td>
<td>Megan Taylor More Effective Assessments, More Effective Assessment Use 8-12</td>
<td>Michael Serra One’s Good, But More is Better 8-12</td>
</tr>
<tr>
<td>Seats 110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scripps</strong></td>
<td>Danielle Buckman Building Perseverance in a Culture of Exploration 8-12</td>
<td>Greg Pitzer Student Discourse Around Rigorous Tasks Using Technology 3-8</td>
<td>Paul Giganti Optical Art for Kids 3-8</td>
<td>Eli Luberoff Technology and Intellectual Need 8-12</td>
<td>Angela Torres Video Club: Creating Vision and Pushing Teacher Beliefs G1</td>
</tr>
<tr>
<td>Seats 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NORTH WOODS</strong></td>
<td>Michael Fenton Designing Rich Digital Tasks for the JHVS Math Classroom 6-12</td>
<td>Jon Southam Introduction to Trig in Geometry with the Unit Circle 8-12</td>
<td>Rhonda McEntee The Art of Effective Questioning 3-5</td>
<td>Rob Nickerson Be Intentional: Elevating the Mathematical Practices 3-5</td>
<td>Ann Carlyle Ten Frames, Number Lines, Rekenreks: Tools for Thinking K-2 PK-2</td>
</tr>
<tr>
<td>Acacia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Toyon</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seats 25</td>
<td>Jonathan Dueck Building a Math Program Strong in Concept and Understanding Ldrshp</td>
<td>Cathy Carroll Learning from Research: Using Worked Examples in Math Class 6-8</td>
<td>Megan Taylor Enacting the Gold-Standard in Teacher Education G1</td>
<td>Carol Fry Bohlin Preparing Middle School Mathematics Teachers-Issues &amp; Models TchEd</td>
<td>Diane Kinch CAMTE Business Meeting TchEd</td>
</tr>
<tr>
<td><strong>VIEW CRESCENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marlin</td>
<td>Celine Liu Improving Outcomes Through Family and Community Engagement G1</td>
<td>Joanne Rossi Becker Orchestrating Math Practices 7 &amp; 8 in Your Math Classroom 6-8</td>
<td>Mardi Gale Algebra Intervention, Rigor, Problem Solving and the CCSS 8-12</td>
<td>Henri Picciotto A Lab Gear Approach to Operations and Equivalent Expressions 6-8</td>
<td>Patricia Rogers Persevere as Students Develop Mathematical Strength 3-8</td>
</tr>
<tr>
<td>Seats 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Culver</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seats 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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.

- **Speaker/Title of Presentation/Target Audience**
- **Strand/Session Number/Extended Interest/Level**
- **Exhibits**

![Matrix Image](image_url)
### ASILOMAR CONFERENCE GROUNDS—SATURDAY SESSIONS

<table>
<thead>
<tr>
<th>Facility</th>
<th>8:00 - 9:00</th>
<th>9:30 - 10:30</th>
<th>11:00 - 12:00</th>
<th>1:30 - 3:00</th>
<th>3:30 - 5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton</td>
<td><strong>Sherry Rodgers</strong>&lt;br&gt;Newcomers Session</td>
<td><strong>Debra Wickman</strong>&lt;br&gt;Everyday, Every Class: Formative Assessment for SMPs</td>
<td><strong>Robert Newton</strong>&lt;br&gt;Math Running Records: A Framework for Fact Fluency</td>
<td><strong>Noam Szoke</strong>&lt;br&gt;Math in the Moment: Exploring Number in Early Childhood</td>
<td><strong>Gail Standiford</strong>&lt;br&gt;Data Collection: Using a CBR to Make the Math Real</td>
</tr>
<tr>
<td>Seat 20</td>
<td>LDRSHP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sea Galaxy</td>
<td><strong>Beth Powell</strong>&lt;br&gt;Identifying Breakdowns: Concept, Computation and Application</td>
<td><strong>Denise Trakas</strong>&lt;br&gt;Moving Beyond Narration to Mathematical Argumentation</td>
<td><strong>Brad Fulton</strong>&lt;br&gt;Teaching 2-Digit Multiplication the Common Core Way</td>
<td><strong>Brad Fulton</strong>&lt;br&gt;The Number Line Activity: Empowering Mathematical Thinking</td>
<td><strong>John Mahlstedt</strong>&lt;br&gt;Surviving the Apocalypse...with Math</td>
</tr>
<tr>
<td>Nautilus E</td>
<td><strong>Gail Burrill</strong>&lt;br&gt;Instruction That Makes a Difference</td>
<td><strong>Gail Burrill</strong>&lt;br&gt;The CCSSM Expressions, Equations and Structure</td>
<td><strong>Suzanne Alejandre</strong>&lt;br&gt;Managing My Teacher Voice</td>
<td><strong>Jessica Balli</strong>&lt;br&gt;Redefining Mathematical Proficiency: Walking the Walk</td>
<td><strong>Michael Fenton</strong>&lt;br&gt;My Journey From Worksheets To Rich Tasks</td>
</tr>
<tr>
<td>Seats 36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nautilus W</td>
<td><strong>Annie Fetter</strong>&lt;br&gt;Using Technology to Focus on Conceptual Understanding</td>
<td><strong>Phil Daro</strong>&lt;br&gt;Using Progressions to Make Progress</td>
<td><strong>Patrick Callahan</strong>&lt;br&gt;Let’s Talk About Tests</td>
<td><strong>Andrew Stadel</strong>&lt;br&gt;Math Mistakes and Error Analysis: Diamonds in the Rough</td>
<td><strong>Robert Kaplinsky</strong>&lt;br&gt;How Old Is the Shepherd?</td>
</tr>
<tr>
<td>Seats 35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merrill Hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seats 138</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

#### CAMTE
The California Association of Mathematics Teacher Educators bring together a set of speakers whose presentations focus on areas of interest to those involved in pre-service and in-service mathematics education. CAMTE Business meeting will be held 12:00-1:30 in Curlew.

#### 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.

### BUS SERVICE
Bus service will run between the Asilomar grounds and Pacific Grove Middle School on Friday from 4:00-9:30pm and on Saturday from 7:15am - 6:00pm

#CMCN15

### 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.

### 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.
<table>
<thead>
<tr>
<th>Room</th>
<th>8:00 - 9:00</th>
<th>9:30 - 10:30</th>
<th>11:00 - 12:00</th>
<th>1:30 - 3:00</th>
<th>3:30 - 5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monica Rock</td>
<td>Origami: Open Faced Dodecahedron Make and Take</td>
<td>3-8</td>
<td>160</td>
<td>MITI</td>
<td></td>
</tr>
<tr>
<td>Nancy Blachman</td>
<td>Delightful Mathematical Puzzles for Differentiated Learning</td>
<td>6-8</td>
<td>260</td>
<td>MITI</td>
<td></td>
</tr>
<tr>
<td>Karen Arth</td>
<td>Making Middle School Math Come Alive with Activities &amp; Games $</td>
<td>6-8</td>
<td>360</td>
<td>BT</td>
<td>$</td>
</tr>
<tr>
<td>Jeanne Lazzarini</td>
<td>Connect Real Life with STEM Activities</td>
<td>8-12</td>
<td>460</td>
<td>BT</td>
<td></td>
</tr>
<tr>
<td>Siva Heiman</td>
<td>Make a Special Abacus to See Core Addition Strategies</td>
<td>PK-2</td>
<td>561</td>
<td>BT</td>
<td></td>
</tr>
<tr>
<td>Room 1 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jody Anderson</td>
<td>Create CC Lessons Using Mathematically-Based Children’s Lit</td>
<td>PK-2</td>
<td>INT</td>
<td>131</td>
<td>BT</td>
</tr>
<tr>
<td>Estelle Woodbury</td>
<td>Whose Job Is That!: Team Roles for Heterogeneous Groupings</td>
<td>G1</td>
<td>PRS</td>
<td>231</td>
<td>BT</td>
</tr>
<tr>
<td>Dean Becker</td>
<td>Statistics Projects for the Aligned Classroom</td>
<td>8-12</td>
<td>INT</td>
<td>331</td>
<td>BT</td>
</tr>
<tr>
<td>Kevin Phillipi</td>
<td>Pathway to Problem Solving via the Mathematical Practices</td>
<td>3-5</td>
<td>INT</td>
<td>431</td>
<td>BT</td>
</tr>
<tr>
<td>Room 4 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>James Schierer</td>
<td>Are Your Seniors Financially Literate?</td>
<td>8-12</td>
<td>PRS</td>
<td>133</td>
<td>BT</td>
</tr>
<tr>
<td>Craig Willmore</td>
<td>Math Games for Greater Gains</td>
<td>3-5</td>
<td>INT</td>
<td>233</td>
<td>BT</td>
</tr>
<tr>
<td>Ma Bernadette Salgarino</td>
<td>WestEd/SCALE’s Mathematics Assessment Literacy Toolkit (ALT)</td>
<td>8-12</td>
<td>INT</td>
<td>333</td>
<td>BT</td>
</tr>
<tr>
<td>Richard Sgroi</td>
<td>Advanced Algebra With Financial Applications</td>
<td>8-12</td>
<td>PRS</td>
<td>433</td>
<td>BT</td>
</tr>
<tr>
<td>Room 5 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jane Liang</td>
<td>From Standards to Assessments, Now What: A CDE Update</td>
<td>G1</td>
<td>W</td>
<td>134</td>
<td>$</td>
</tr>
<tr>
<td>Laura Pesavento</td>
<td>Number of the Day</td>
<td>PK-2</td>
<td>INT</td>
<td>234</td>
<td>BT</td>
</tr>
<tr>
<td>Karen Woottton</td>
<td>Assessment: Why Bother?</td>
<td>8-12</td>
<td>INT</td>
<td>334</td>
<td>BT</td>
</tr>
<tr>
<td>Chase Orton</td>
<td>Two-Way Frequency Tables: Teaching a New Statistics Standard</td>
<td>8-12</td>
<td>INT</td>
<td>434</td>
<td>BT</td>
</tr>
<tr>
<td>Room 6 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dan Stetson</td>
<td>Get Students to Do the Sense-Making: Teach Without Telling</td>
<td>3-8</td>
<td>INT</td>
<td>135</td>
<td>BT</td>
</tr>
<tr>
<td>Andre Marti</td>
<td>Statistics and Probability in Grades 6-11 with Technology</td>
<td>8-12</td>
<td>PRS</td>
<td>235</td>
<td>BT</td>
</tr>
<tr>
<td>Suzanne Damm</td>
<td>Extending Children’s Mathematics: Fractions</td>
<td>3-5</td>
<td>INT</td>
<td>335</td>
<td>$</td>
</tr>
<tr>
<td>Carmen Whitman</td>
<td>Let’s Connect Proportional Reasoning With the Standards</td>
<td>6-8</td>
<td>INT</td>
<td>435</td>
<td>BT</td>
</tr>
<tr>
<td>Room 7 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bree Pickford-Murray</td>
<td>Classroom Routines to Support Mathematical Discourse</td>
<td>6-8</td>
<td>PRS</td>
<td>136</td>
<td>BT</td>
</tr>
<tr>
<td>Judith Kysy</td>
<td>Challenging the Eager Achievers in Untracked Classes</td>
<td>8-12</td>
<td>PRS</td>
<td>236</td>
<td>BT</td>
</tr>
<tr>
<td>Josh Deis</td>
<td>Looking for Vital Student Actions in the Math Classroom</td>
<td>8-12</td>
<td>INT</td>
<td>336</td>
<td>$</td>
</tr>
<tr>
<td>Mia Buljan</td>
<td>Math Practices in Action: Problem Solving in Primary Classes</td>
<td>PK-2</td>
<td>PRS</td>
<td>436</td>
<td>BT</td>
</tr>
<tr>
<td>Room 13 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denise Henry</td>
<td>SBAC and Claims and Targets, Oh My!</td>
<td>3-8</td>
<td>INT</td>
<td>140</td>
<td>BT</td>
</tr>
<tr>
<td>Anna Blinkshtein</td>
<td>Journaling and Writing in Mathematics</td>
<td>8-12</td>
<td>INT</td>
<td>240</td>
<td>BT</td>
</tr>
<tr>
<td>Christine Newell</td>
<td>Fractions: Reasoning Through Meaningful Discourse</td>
<td>3-5</td>
<td>INT</td>
<td>340</td>
<td>BT</td>
</tr>
<tr>
<td>Travis Lemon</td>
<td>Dilution, Similarity, Trigonometry: Coherent, High Level DOK</td>
<td>8-12</td>
<td>INT</td>
<td>440</td>
<td>BT</td>
</tr>
<tr>
<td>Room 14 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joel Dylong</td>
<td>Can a Computer Really Teach Problem Solving?</td>
<td>3-5</td>
<td>PRS</td>
<td>141</td>
<td>BT</td>
</tr>
<tr>
<td>Seth Dow</td>
<td>Write to Learn</td>
<td>8-12</td>
<td>W</td>
<td>241</td>
<td>BT</td>
</tr>
<tr>
<td>Lisa Miller</td>
<td>Using the Growth Mindset to Help All Learners Be Successful</td>
<td>8-12</td>
<td>PRS</td>
<td>341</td>
<td>BT</td>
</tr>
<tr>
<td>Erica Burnison</td>
<td>Making Students Thinking Visible</td>
<td>G1</td>
<td>PRS</td>
<td>341</td>
<td>BT</td>
</tr>
<tr>
<td>Elizabeth Johnson</td>
<td>TI Graphing Calculators in CC Algebra/CC Integ 1 Statistics</td>
<td>8-12</td>
<td>INT</td>
<td>341</td>
<td>BT</td>
</tr>
<tr>
<td>Room 15 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rachel Lasek</td>
<td>Using Google Forms for Quick Formative Assessments</td>
<td>8-12</td>
<td>PRS</td>
<td>142</td>
<td>BT</td>
</tr>
<tr>
<td>Rachel Lasek</td>
<td>Math Tech-Toolbox</td>
<td>8-12</td>
<td>PRS</td>
<td>242</td>
<td>BT</td>
</tr>
<tr>
<td>Diane Resek</td>
<td>Making Multiplication Tables Meaningful and Interesting</td>
<td>3-8</td>
<td>INT</td>
<td>342</td>
<td>BT</td>
</tr>
<tr>
<td>Shelley Carranza</td>
<td>Google Docs &amp; Desmos in the Secondary Math Class</td>
<td>8-12</td>
<td>PRS</td>
<td>442</td>
<td>BT</td>
</tr>
<tr>
<td>Sara Moore</td>
<td>Linking Representation &amp; Algorithm in Operations</td>
<td>3-5</td>
<td>INT</td>
<td>542</td>
<td>BT</td>
</tr>
<tr>
<td>Room 16 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beverly Heigre</td>
<td>Technology Used in the Flipped and Traditional Classroom</td>
<td>8-12</td>
<td>PRS</td>
<td>156</td>
<td>BT</td>
</tr>
<tr>
<td>Christine Roberts</td>
<td>Supporting Learners in the Flipped Classroom</td>
<td>G1</td>
<td>INT</td>
<td>258</td>
<td>BT</td>
</tr>
<tr>
<td>Christine Roberts</td>
<td>Assessment Practices + DOK = Deeper Understanding of Math</td>
<td>3-8</td>
<td>INT</td>
<td>358</td>
<td>BT</td>
</tr>
<tr>
<td>Bob Barboza</td>
<td>Kids Talk Radio Math &amp; The Occupant Mars Learning Adventures: Ten Ed</td>
<td>INT</td>
<td>458</td>
<td>BT</td>
<td></td>
</tr>
<tr>
<td>Sara Moore</td>
<td>Linking Representation &amp; Algorithm in Operations</td>
<td>3-5</td>
<td>INT</td>
<td>542</td>
<td>BT</td>
</tr>
<tr>
<td>Room 17 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frederico Chialvo</td>
<td>Young Mathematicians &amp; the Thrill of Mathematical Discovery</td>
<td>PK-5</td>
<td>INT</td>
<td>143</td>
<td>$</td>
</tr>
<tr>
<td>Chris Shore</td>
<td>The Core of the Core</td>
<td>G1</td>
<td>PRS</td>
<td>243</td>
<td>BT</td>
</tr>
<tr>
<td>Charlene Pugh</td>
<td>You Can Do Mathematics with Fractions</td>
<td>3-8</td>
<td>INT</td>
<td>343</td>
<td>BT</td>
</tr>
<tr>
<td>Emiliano Gomez</td>
<td>Let’s Have Fun: Games for Mathematical Thinking</td>
<td>G1</td>
<td>INT</td>
<td>443</td>
<td>BT</td>
</tr>
<tr>
<td>Room 18 Seats 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>James Town</td>
<td>Making Math: Problem Solving in Action</td>
<td>8-12</td>
<td>INT</td>
<td>543</td>
<td>BT</td>
</tr>
<tr>
<td>Room</td>
<td>8:00 - 9:00</td>
<td>9:30 - 10:30</td>
<td>11:00 - 12:00</td>
<td>1:30 - 3:00</td>
<td>3:30 - 5:00</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Room 25, Seats 30</td>
<td>Michael Hattar Solving Common Core and Fun Problems with Confidence PK-2</td>
<td>Philip Magner Beyond Euler’s Line 6-8</td>
<td>Barbara Novelli Getting to the Core of Place Value in Primary Grades PK-2</td>
<td>Barbara Novelli Teach Science—Teach Math PK-5</td>
<td>Tracy Talamantes Pathway to Problem Solving via the Mathematical Practices PK-2</td>
</tr>
<tr>
<td>Room 26, Seats 30</td>
<td>Matt Lane The Unreasonable Effectiveness of Video Games 8-12</td>
<td>Marin Rodriguez Building Number Sense Through the Use of Primes 6-8</td>
<td>Jackie Wicks Playing with Numbers PK-2</td>
<td>Masha Albrecht Student-Centered Projects to Enrich Algebra I 8-12</td>
<td>Juana De Anda Looking at a Math Task Through the Lens of the 5 Practices PK-2</td>
</tr>
<tr>
<td>Room 29, Seats 30</td>
<td>Robert Sornson Developing Competency for Grade 1 Essential Math Skills PK-2</td>
<td>Lora Saarnio Inspirational Math K-3 PK-2</td>
<td>Katie Renua Rich Discussions and Rich Tasks in the MS Math Classroom 6-8</td>
<td>Ted Courant Using SMPs While Building Understanding of Expected Value 8-12</td>
<td>Hallie Foster Conics Rock! 8-12</td>
</tr>
<tr>
<td>Room 30, Seats 30</td>
<td>Katy Early Discovering Divisibility with Pattern, Structure &amp; Purpose! 3-5</td>
<td>Sean Nank Engagement Through Student Created Math Videos GI</td>
<td>Sean Nank Finally, a Free Online CCSS-M Textbook with Coherence! GI</td>
<td>Kathy Bradley Building a CCSS-M Classroom with the Math Teaching Toolkit GI</td>
<td>Joy Otake A Journey Through Our Number System PK-5</td>
</tr>
<tr>
<td>Room 32, Seats 30</td>
<td>Linda Shumate Newcomers’ Session GI</td>
<td>Steve Leinwand Mathematics Coaching: An Essential Component of Quality GI</td>
<td>David Foster Supporting Students in Agency, Identity and Authority GI</td>
<td>Ruth Parker Bringing the SMP to Life in Classrooms GI</td>
<td>Bruce Grip Parabolas with Life Applications 8-12</td>
</tr>
<tr>
<td>Room 33, Seats 30</td>
<td>Lori Hamada Providing a Mathematically Rich Classroom 3-8</td>
<td>Rick Barlow Building a Community of Learners—One Mistake At a Time 6-8</td>
<td>Daren Starnes Taming the AP Statistics Investigative Task 8-12</td>
<td>Kathleen M Hamon Using Multi-Modal Curriculum Based on Digital Resources GI</td>
<td>Chris Shore The Practices Are for Kids 8-12</td>
</tr>
<tr>
<td>Room 34, Seats 30</td>
<td>Beth Baker Student Teams-Max Learning, Min Chat! Seven Simple Steps 6-8</td>
<td>Johnnie Wilson Teaching Word Problems Using Common Core Approaches 3-8</td>
<td>Elizabeth Statmore Fulfilling the Promise of MP 3 Through Talking Points 8-12</td>
<td>Pamela Hutchison A Night Out with Math: Supporting Parents and Students PK-5</td>
<td>Kyndall Brown Using Statistics to Make Connections in Grades 6-8</td>
</tr>
<tr>
<td>Room 35, Seats 30</td>
<td>Hardy Reyerson Discovering Newton 8-12</td>
<td>Andy Kotko Adding Depth and Complexity in Primary Math PK-2</td>
<td>Karl Schaffer Where Patterns Collide: Mathematics and Dance GI</td>
<td>Peg Cagle A Paper Cup + a Gust of Wind = Yearlong Rich Task 8-12</td>
<td>6-8</td>
</tr>
</tbody>
</table>

WWW.CMC-MATH.ORG
Albrecht, Masha — Math Teacher, Berkeley HS
Student-Centered Projects to Enrich Algebra 1
The presenter shares projects she has used with a diverse group of algebra students in an urban high school. These projects deepen student skills and encourage mathematical thinking without rote memorization. Projects include: art posters using linear inequalities, data modeling based on topics of student interest, and student designed problems. Each project will be available as paper and electronic handouts, with rubrics included. We will look at a variety of student work.
8-12 | INT | 445 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 26 | BT
Co-presenter: Jesus Herrera — Math Teacher, Berkeley HS

Alejandre, Suzanne — The Math Forum @ Drexel
Managing My Teacher Voice
A teacher recently said to me that she wants to encourage her students to be more engaged in their own mathematical thinking. She wants a classroom environment that encourages each student to voice their mathematical thinking and besides communicating orally, she wants to encourage each of them to write, reflect, and revise their problem-solving responses. She confessed that she’s discouraged because it’s hard! In this session we’ll discuss some ideas for her to use to help make this happen.
6-8 | PRS | 317 | Saturday, 11:00 - 12:00 | Asilomar, Nautilus West | BT

Amend-Ehn, Patricia — First Grade Teacher, Kenwood Elem
Making Connections Through Engineering
This is a hands-on session where participants will engage in solving real-world engineering challenges. We learn and have a deeper understanding of mathematical concepts when actively engaged. Participants will learn about the basics of the engineering process and how to bring the Maker Movement, STEM, or STEAM into their classroom. We will focus on strategies for implementing spontaneous or project based challenges into the classroom.
PK-5 | INT | 208 | Saturday, 9:30 - 10:30 | Asilomar, Toyon | BT
Co-presenter: Carinne Paddock

Anderson, Jody — Kindergarten Teacher, Sargeant Elem / CRA
Create CC Lessons Using Mathematically-Based Children’s Lit
What child doesn’t love to be read to and what teacher doesn’t love to read to children? If this describes you – see how reading The 3 Little Pigs, The Very Hungry Caterpillar, Pete the Cat and His Four Groovy Buttons, The Tortoise and the Hare (plus many more titles) can lead into your next math concept lesson and ignite the love of literature and reading in your students. See how to use interactive writing to write math equations and story problems using the Language of Mathematics.
PK-2 | INT | 131 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 1 | BT
Co-presenter: Jenn Twerberg — 1st Grade Teacher, Loomis Grammar School

Arth, Karen — CPM Educational Program
Making Middle School Math Come Alive with Activities & Games
Participants will be actively engaged in working through games and activities around middle school math topics. Operations on integers will be explored with manipulatives. Activities will be used to introduce or practice some of the basic skills. Participants will also do some activities around graphing, measures of central tendency, multiplication, play some games around integers and probability and also a Silent Board game. Mathematical Practices 1, 2 and 3 will be emphasized.
6-8 | INTI | 360 | Saturday, 11:00 - 12:00 | PG Middle School, Library A | BT

Baker, Beth — Teacher/Trainer/Affiliate President, CPM
Student Teams-Max Learning, Min Chat! Seven Simple Steps
Student Study teams are the gold standard for many CCSM lessons. How do we keep our students on the lesson? Come learn and practice seven simple steps that will structure teams, give accountability to students and increase motivation and engagement. Suitable for homogeneous groups, with equity for all learners. Leave with a plan and the tools to tune up your student groups.
6-8 | INT | 155 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 37 | BT

Ball, Jessica
Redefining Mathematical Proficiency: Walking the Walk
We tell our students that we value their thinking, but then don’t ask them to defend their answer. We tell our students that they’ll use math in the real world, but then we decontextualize problems. We talk the talk, but don’t walk the walk. In this session I will share strategies and describe how investing time in the SMPs had big payoffs throughout the year. Come see how engaging in the SMPs can help students redefine what it means to be ‘good at math’ and how you can walk your talk.
8-12 | PRS | 417 | Saturday, 1:30 - 3:00 | Asilomar, Nautilus West | BT

Barboza, Bob — STEM Team Leader, Super School K-12
Kids Talk Radio Math & The Occupy Mars Learning Adventures
See demonstrations of Kids Talk Radio Math, STEAM++ Graphic Organizers, math and the visual and performing arts. The Occupy Mars Learning Adventures, project based IEP’s, backpack robotics, backpack science and backpack STEM journalism programming. Projects include high motivational CCSS projects designed for special needs, ELL, Gifted and general ed. students.
Thr Ed | INT | 458 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 23 | BT
Barlow, Rick — Math Teacher
Building a Community of Learners: One Mistake At a Time
As a teacher, I struggle when my students’ motivation for learning seems to be assessment scores or points. I will share my efforts to use error analysis activities along with the Standards for Mathematical Practice to build a classroom community that values mathematical processes and perseverance over solutions and grades. Teachers will create an error analysis activity and modify a participation structure they currently use. We will use technology so bring your tablet, laptop or phone.
8-12 | INT | 254 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 36 | BT

Becker, Dean — Teacher, Albany HS
Statistics Projects for the Aligned Classroom
Efficiently carry out experiments that generate rich discussions about data collection and statistical analysis suitable for middle and high school classrooms. Participate in activities such as the Necco wafer challenge, manipulating numerical answers to survey questions, and using means to battle skewed distributions. You will leave with classroom ready activities and discussion points for students in 8th grade and beyond.
8-12 | INT | 331 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 1 | BT
Co-presenter: Stephen Chee — Teacher, Albany HS

Biagetti, Stephanie — CSU, Sacramento
Facilitating Constructive Math Conversations in K-2
This interactive presentation will draw on recent research related to different aspects of math conversations. As we discuss “talk moves” to support mathematical thinking, types of intentional math conversations, questions as well as sentence starters to support constructive conversation skills, you will participate in constructive math conversations to experience the tools in action and leave with resources so that you can facilitate math conversations with your own students the next week.
PK-2 | INT | 304 | Saturday, 11:00 - 12:00 | Asilomar, Oak Shelter | BT

Blachman, Nancy — Julia Robinson Math Festival
Delightful Mathematical Puzzles for Differentiated Learning
In playing with puzzles, hopefully your students will discover that mathematics is more captivating than they expected. In this workshop, Nancy Blachman will present puzzles that encourage collaborative and creative problem solving, which are accessible to students of different levels and learning styles. Each workshop attendee will receive a booklet of mathematical puzzles and links to websites with deep engaging problems and puzzles.
6-8 | MITI | 260 | Saturday, 9:30 - 10:30 | PG Middle School, Library A

Blinstein, Anna — Math Teacher, The Nueva School
Journaling and Writing in Mathematics
Writing about their math learning helps students develop deeper content understanding, improves their ability to communicate and critique the reasoning of others, and builds metacognition and positive disposition towards the subject. Come and explore different classroom structures and assessment models that support and teach students how to write more effectively in mathematics and how to include more writing in your curriculum.
8-12 | INT | 240 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 13 | BT

Bradley, Kathy — Curriculum & Instruction SFUSD
Building a CCSS-M Classroom with the Math Teaching Toolkit
The successful implementation of CCSS-M is as dependent on Practice as it is on Content. Changing the content is easy, but changing the practice is hard. The Math Teaching Toolkit was created to bring this change to our heterogeneous classrooms. In this session participants will experience signature strategies and tools from SFUSD’s Math Teaching Toolkit, the guiding document for our core curriculum and for all math PD. Participants will leave with resources and ideas for their classrooms.
3-5 | INT | 450 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 32 | BT
Co-presenter: Glenn Kenyon — Math Content Specialist, San Francisco USD

Brooking, Elizabeth — Teacher, Pinole MS
Simple Engineering to Apply Math Practices
We will work through several simple (and inexpensive) engineering projects to support your math and science curriculum. These projects will help your students apply mathematical practices including problem solving, perseverance, and precision while reinforcing the NGSS engineering practices. Plus, they’ll love it!
3-5 | MITI | 361 | Saturday, 11:00 - 12:00 | PG Middle School, Library B | BT

Brown Brooks, Gloria — Teacher, Santa Ana Opportunity School
Problem Solving with English Language Learners
I will share the work of my English Language Learners along with the student comments, and feeling regarding taking the Common Core Assessments. We will explore ways to prepare our English Language Learners to become successful with vocabulary filled assessments. Using the 8 Mathematical Practices we will explore connections and how to make them to our present curriculum. There will be a teacher discussion as well regarding; how have you increased mathematical discourse?
3-5 | INT | 105 | Saturday, 8:00 - 9:00 | Asilomar, Evergreen | BT

Brown, Kyndall — Exec. Director, California Mathematics Project
Using Statistics to Make Connections in Grades 6-8
The Common Core Standards contains a large number of statistics standards in grades 6-8. This session will expose teachers to the 6-8 statistics standards in the Common Core, Guidelines for Assessment and Instruction in Statistics Education (GAISE) Framework, and hands-on statistics activities. Connections will be made between the GAISE Framework and the Standards for Mathematical Practice. Strategies for English Language Development will be included.
6-8 | INT | 556 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 38 | BT

Buckman, Danielle
Building Perseverance in a Culture of Exploration
Students rarely have the opportunity to authentically make mathematical discoveries and engage in their own learning. The SMP’s demand the space for multiple solutions and methods, but teachers and students alike are unsure of what this looks like in a classroom. In this session, teachers will learn about a structure called Explore, Conjecture, Validate, that allows students to be curious, take risks, and persevere when learning mathematics.
8-12 | PRS | 106 | Saturday, 8:00 - 9:00 | Asilomar, Scripps Conference | BT
Co-presenter: Jessica Balli Murk — Teacher & Education Consultant, Callahan Consulting
Buljan, Mia — Teacher, Glassbrook Elem

**Math Practices in Action: Problem Solving in Primary Classes**

Bring the Standards for Math Practice to life by beginning Problem Solving Workshop (PSW) as part of your math block. We will look at how to use Cognitively Guided Instruction (Carpenter, Franke) problem types to align instruction to the Common Core content standards. During this workshop we will use classroom video to highlight the roles of students and teachers during PSW; look at managing tools and materials; and give some scheduling ideas for how PSW might fit into a balanced math program.

**Speakers:**

PK-2 | PERS | 436 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 7 | BT

---

Burnison, Erica — Math Specialist, North Davis Elem School

**Making Student Thinking Visible**

If the intent of the Common Core Math Practices is to engage students in mathematical reasoning we need to first make student thinking visible and then be able to interpret and navigate students’ mathematical ideas. This session will share questioning practices that help teachers elicit student thinking and get students to share and articulate their thinking. It will also give teachers tools for uncovering the math embedded in student explanations in order to deepen mathematical understanding.

**Speakers:**

GI | PERS | 241 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 21Lab | BT

---

Burrill, Gail — Academic Specialist, Michigan State Univ

**Instruction That Makes a Difference**

The NCTM Principles to Action describe eight practices for effective mathematics teaching that align directly to the CCSS Mathematical Practices for students. Research suggests that implementation of these practices shows promising evidence that they can make a difference in what students learn. What are these practices, how do they relate to the CCSSM, what does it take to make them happen, and how can interactive dynamic technology help?

**Speakers:**

GI | INT | 817 | Saturday, 8:30 - 9:00 | Asilomar, Nautilus West | BT

---

**The CCSSM Expressions, Equations and Structure**

The CCSSM emphasize conceptual understanding and identify expressions and equations as a major content strand. Together these can provide students with the building blocks that will enable them to apply transfer their knowledge across a variety of algebraic domains. Examples of how to implement a coherent, consistent learning trajectory, supported by interactive dynamic technology, that develops this strand within and over grades can help us understand what this means for our classrooms.

**Speakers:**

6-8 | INT | 217 | Saturday, 9:30 - 10:30 | Asilomar, Nautilus West | BT

---

Cagle, Peg

**A Paper Cup + a Gust of Wind = Yearlong Rich Task**

Explore how what began as a cup rolling on a table, became a low-threshold high-ceiling problem used to build significant math over the course of a year in geometry. Starting with physical models on day one and culminating with application of trig functions late in the year, revisiting the same task emphasizes math as reasoning not simply answer-getting, as increasingly sophisticated techniques are employed to reason about the same scenario and grow capacity for making strategic choices.

**Speakers:**

8-12 | INT | 456 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 38 | BT

---

Callahan, Patrick

**Let’s Talk About Tests**

You are busy transitioning to the CCSS. New curriculum, new pathways, etc., but what about your tests? Are yours very different than what you used before? Would they be considered rigorous? What does an Integrated 1 or a Common Core Grade 6 Final Exam actually look like? Does you grading system even make sense? Come find out. Let’s talk about tests (and grades), it’s BYOT (Bring Your Own Tests)! Warning: this talk may challenge some beliefs.

**Speakers:**

GI | PERS | 316 | Saturday, 11:00 - 12:00 | Asilomar, Merrill Hall | BT

---

Carlyle, Ann — Instructor/Supervisor

**Ten Frames, Number Lines, Rekenreks: Tools for Thinking K-2**

With these basic tools, students learn that numbers can be broken down into other numbers using decomposition. They also begin to recognize the relationship of parts to the whole. The relationships of more, less, the same, how many more, how many less, and the sequencing of numbers are all ideas that can be developed within the student’s brain using visual tools to help construct these basic ideas. Participants will see how readily available materials can be used to explore these tools.

**Speakers:**

PK-2 | INT | 507 | Saturday, 3:30 - 5:00 | Asilomar, Acacia | BT

---

Carranza, Shelley — Math Teacher, Mountain View Los Altos SD

**Google Docs and Desmos in the Secondary Math Class**

This session will highlight a set of activities and templates implemented using Google Docs in middle and high school math classes. We will incorporate Desmos to support student understanding, and demonstrate how to embed hyperlinks, screenshots, and other images in a Google Doc math activity. Methods for distributing and collecting student work will be modeled throughout the session, and we will also go over how to efficiently distribute work to students using Google Classroom.

**Speakers:**

8-12 | PERS | 442 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 22Lab | BT

Co-presenter: Nomin Foy — Math Teacher, Los Altos SD

---

Carroll, Cathy — West Ed

**Learning from Research: Using Worked Examples in Math Class**

How can we integrate the research-based cognitive design principle of using worked examples to enhance math instructional materials? Research suggests that engaging students in explaining solved problems worked examples is more effective than having them complete traditional problem sets. In this session, you will experience some samples of and strategies for using worked examples while engaging students with the Standards for Mathematical Practice.

**Speakers:**

6-8 | INT | 209 | Saturday, 9:30 - 10:30 | Asilomar, Marlin | BT

---

**BUS SERVICE**

Bus service will run between the Asilomar grounds and Pacific Grove Middle School on Friday from 4:00-9:30pm and on Saturday from 7:15am - 6:00pm
Chappill-Nichols, Shalek — Master Teacher, Educational R & D
Magical Math
Come join the fun in Magical Math. We will learn how to create games and activities to unlock the magic in basic math. Special emphasis is placed on identifying opportunities and methods of applying the mathematics practices in the Common Core Mathematics standards and the new Desired Result Development Profile (DRDP). Participants will learn how to conduct and assess fun and exciting activities that will enhance young student’s experiences while weaving in other areas of learning domains.

PK-2 | INT | 308 | Saturday, 11:00 - 12:00 | Asilomar, Toyon | BT

Measurement and Data, Oh My!
In Measurement and Data, Oh My! educators will learn how to use hands-on activities to enhance student learning in measurement and data. Workshop participants will explore tools and strategies for teaching open-ended projects in a fun and exciting way, strengthening students’ creative thinking, classification, and motor skills.

PK-2 | INT | 408 | Saturday, 1:30 - 3:00 | Asilomar, Toyon | BT

Chavez-Goodman, Lucia — Teacher, Flowery Elem
Math Stories and Mathematics Discourse
This session will provide an opportunity to become familiar with and explore the 5 Practices for Orchestrating Productive Mathematics Discussions and 3-Read Strategy for CCSS Math. The session will include an overview of how these practices can be implemented in grades K-2 and how students move to writing their math stories and providing solutions while being engaged in student discourse.

PK-2 | INT | 357 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 39 | BT
Co-presenter: Juan Carlos Balandran — Classroom Teacher, Flowery Elem

Chialvo, Federico — Director of Mathematics, Synapse School
Young Mathematicians & the Thrill of Mathematical Discovery
What kinds of mathematical contexts can provide elementary school students the thrill of mathematical discovery, and how can this fit into our curriculum? We will explore a few ‘low floor, high ceiling’ mathematical investigations that will get your students noticing patterns and wondering why. We will discuss ways to facilitate these kinds of math tasks and discussions with young students, and how these tasks can give students experience with mathematical practices as well as with core skills.

PK-5 | INT | 143 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 24

Childs, Leigh
Engaging Activities+Strategies = Numerically Nimble Students
Discover ways to efficiently implement CCSSM, particularly the Standards for Mathematical Practice. These engaging activities and strategies promote greater sense making, as all students increase their numeric fluency and proficiency. Selected activities differentiate instruction, infuse algebraic thinking, and enhance students’ reasoning abilities.

3-5 | PRS | 251 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 33 | BT

Costa, Elmano — Professor of Elem Education, CSU Stanislaus
Instruction for English Learners: Comprehension is at the Core
English Learners can meet the Common Core standards and Practices when the instruction is orchestrated to meet their needs. This workshop will show you how to plan and deliver lessons that make instruction comprehensible for EL students at any level. The session begins by presenting the key features of effective EL lesson design and then models how to implement them in a math lesson taught exclusively in Portuguese.

PK-5 | INT | 348 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 29 | BT

Courant, Ted — Mathematics Teacher, Bentley School
Conic Sections: From Geometry to Kepler’s Laws
Conic sections are introduced through geometric definitions, and their properties and applications are explored. We explore various constructions, including by paper-folding, mechanical apparatus, and use of a carpenter’s square. We finish with an elementary proof of Kepler’s law, namely that planets orbit the sun in an ellipse with the sun at one focus. The mathematics used ranges from geometry through algebra only, with some use of vectors, and the takeaways can be applied in grades 9-12.

8-12 | INT | 448 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 29 | BT

Damm, Suzanne — Math Coordinator, Santa Cruz COE
Extending Children’s Mathematics: Fractions
We will explore: building meaning for fractions through word problems; the progression of children’s strategies for solving fraction word problems; and, helping students capitalize on relational thinking strategies to integrate algebra into teaching and learning fractions.

3-5 | INT | 335 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 6

Math: A Topic Worth Discussing—Teachers and Students Talk
How do we get students to talk about math? We establish a safe classroom first. We set expectations and procedures. We demonstrate and practice. We give rich topics for discussion. We plan for the discussion. We allow time for the discussion to unfold. We draw conclusions and find ways to use what we have learned to help with future topics. Come experience classroom activities and ensuing discussion and start planning your next discourse topic.

6-8 | INT | 405 | Saturday, 1:30 - 3:00 | Asilomar, Evergreen | BT
Co-presenter: Gloria Brown-Brooks — Mathematics and Science Teacher, Santa Ana Opportunity School

Darco, Phil
Using Progressions to Make Progress
Mathematical concepts build on each other. In writing the CCSS-M, we put effort into sequencing concepts that depend on each other in coherent ways and align to cognitive development of children. The toughest job, however, belongs to teachers who must deal with progressions within each lesson. Differences among students reveal progressions along which students can travel to learn. The variety of ways students think can and should be used as stepping stones to bring students up to grade level.

G1 | PRS | 218 | Saturday, 9:30 - 10:30 | Asilomar, Merrill Hall | BT
De Anda, Juana — Teacher, Flowery Elem
Looking at a Math Task Through the Lens of the 5 Practices
This session will provide teachers with an opportunity to complete a task and then go thru the 5 practices that point out how to make math discussions meaningful for students as well as teachers. Teachers will practice anticipating, monitoring, selecting, sequencing and connecting in a math task. We will discuss the importance of the anticipating stage and how you can use the information students show on the task to assess their ability in a specific math standard.
PK-3 | INT | 545 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 26 | BT
Co-presenter: Juan Carlos Balandran — Classroom Teacher, Flowery Elem

Deis, Josh — Math Coordinator, Sonoma COE
Looking for Vital Student Actions in the Math Classroom
What if we focused on students instead of teachers when we walked into a mathematics classroom? What should we look for? We should be looking for students demonstrating the Standards for Mathematical Practices (SMPs). The 5x8 card, developed by Strategic Education Research Partnership (SERP), is a powerful tool to help leaders and teachers look for vital student actions that are linked to the SMPs. Learn how to use the 5x8 card as a framework to inform teaching practices.
Ldshp | INT | 336 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 7

Douglas, Lew — The Lawrence Hall of Science
Increasing Coherence in High School Math
The traditional 9-12 math curriculum is badly fragmented: Algebra, then Geometry, then more Algebra, and finally a hodgepodge of topics known as Pre-Calculus or Math Analysis. An integrated approach can help, but not if it merely slices up the courses and mixes up the pieces. What’s needed is unifying concepts that the various pieces can fit into. I’ll focus on transformations and system extension as examples of these, and include glimpses of others.
8-12 | INT | 558 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 23
Co-presenter: Henri Picciotto — Math Education Consultant
http://www.mathedpage.org

Dow, Seth — Sugar Bowl Academy
Write to Learn
Reflection and Extension: The power of writing in mathematics. We will begin with what the research says about writing in mathematics, and then continue onto practices in the classroom. The practices focus on writing within a unit and writing in projects. The projects are based on Sherlock Holmes and Dexter; each provides a context to analyze a fundamentally mathematical relationship. Teachers will go home with two projects and a few protocols.
8-12 | W | 241 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 21Lab | BT

Dueck, Jonathan — Fresno COE
Building a Math Program Strong in Concept and Understanding
Many elementary teachers struggle to create a math program that is larger than the adopted textbook that is handed to them each time there is a textbook adoption. Workshop participants will learn how the Fresno County Office of Education is working with educators to craft meaningful and skillful lessons with rigorous content and student interactions.
Ldshp | PRS | 109 | Saturday, 8:00 - 9:00 | Asilomar, Marlin

Dylong, Joel — Senior Partnership Manager, Reasoning Mind - Mathematics Nonprofit
Can a Computer Really Teach Problem Solving?
Explore how problem solving is described by researchers. Then use that information to analyze what failures and successes technology has had in utilizing said research. Attendees will be invited to critique methodologies used by technology products with a goal of help attendees better evaluate technology resources for their classroom.
3-5 | PRS | 141 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 21Lab | BT

Early, Katy — Mathematics Instructor, CSU Chico
Discovering Divisibility with Pattern, Structure & Purpose!
Divisibility begins with multiplication and division in third grade. Fourth graders explore factors, multiples, and patterns. Fifth graders express numbers as products of their prime factors and use divisibility comfortably in operations with fractions. The Math Practices empower students to use structure and precise language. We will use precise mathematical vocabulary as we play with patterns on the hundreds chart and the multiplication table, discovering useful tests of divisibility.
3-5 | INT | 150 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 32 | BT

Easterday, Joan
Statistics - Gummy Worms, Rubber Band Cars, and Cubits
These classroom lessons come from the CMC and California Mathematics Project Statistics Institute. Classroom lessons make connections for students between: the statistical process, measurement data, number, and the Standards for Mathematical Practice. You will measure gummy worms, distance traveled by wind up Lego cars, and handspans as well as see the results of the work of elementary students many of whom are second language learners.
3-5 | INT | 504 | Saturday, 3:30 - 5:00 | Asilomar, Oak Shelter | BT

Farrand, Scott — Professor, CSU, Sacramento
Choose Examples to Promote Conjectures
Getting students to anticipate and conjecture key mathematical ideas can do wonders for their motivation and inclination to make sense of mathematics. By using examples up front, carefully chosen to lead to the conjectures, you can change the roles students see for themselves as math learners. We’ll go through such a process with some elementary mathematics, see some truly surprising results, and generate some wonderment and conjectures.
8-12 | PRS | 203 | Saturday, 9:30 - 10:30 | Asilomar, Heather | BT
Co-presenter: Kim Elce — Professor, CSU, Sacramento

~ 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.
Fenton, Michael
Designing Rich Digital Tasks for the JH/HS Math Classroom
In this engaging, hands-on session we’ll explore how Desmos—the free online graphing calculator—boosts student engagement and increases course rigor. We’ll level-up our Desmos graphing skills, build rich digital tasks with Desmos Activity Builder, and gain access to hundreds of free online graphing activities. Bring a laptop or tablet for the best experience.
6-12 | INT | 107 | Saturday, 8:00 - 9:00 | Asilomar, Acacia

My Journey From Worksheets To Rich Tasks
Lecture. Practice. Homework. Wash, rinse, repeat. For years I was stuck in this uninspiring cycle. I knew there was more, but had trouble letting go of my example-centric approach. In this session I’ll share what I’ve learned in my ongoing escape from monotony, from the big picture of ‘Why’ to the nuts-and-bolts details of ‘What’ and ‘How.’
6 | INT | 517 | Saturday, 3:30 - 5:00 | Asilomar, Nautilus West | BT

Fetter, Annie — The Math Forum
Using Technology to Focus on Conceptual Understanding
Many topics in algebra and geometry are difficult to address conceptually and tend to be taught procedurally. We’ll explore interactive applets that let students ‘notice and wonder,’ talk about mathematical situations, and develop conceptual understandings of triangle properties, linear equations, systems of equations, and factoring trinomials.
6-8 | PRS | 118 | Saturday, 8:00 - 9:00 | Asilomar, Merrill Hall | BT

Flashman, Martin
Equations, Functions, and Mapping Diagrams in Common Core
The Common Core emphasizes making sense of solving equations and using functions. Mapping diagrams provide a valuable tool for visualizing functions and connects function concepts to solving equations in many contexts. In this presentation both linear and quadratic equations will be solved using mapping diagrams to make sense visually of the functions and steps used in common algebraic approaches to these problems. GeoGebra will be used as a dynamic tool to connect the concepts with technology.
8-12 | PRS | 451 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 33

Foster, David — Executive Director, Silicon Valley Mathematics Initiative
Supporting Students in Agency, Identity and Authority
Recent research stresses the importance of students being owners of their learning, developing positive disposition towards mathematics, shifting their beliefs to a growth mind-set and engaging in high cognitive math discourse. This session will examine how real teachers foster classroom culture to enable students to develop their agency, identity and authority in math class. Videos of elementary and secondary classrooms will be analyzed and resources shared.
8 | INT | 353 | Saturday, 11:00 - 12:00 | PG Middle School, Auditorium | BT

Foster, Hallie — Math Teacher, Terra Linda HS
Conics Rock!
Teacher: What do you remember about conic sections? Student: They have to do with cones, right? This presentation will focus (ha) on a series of activities designed to engage students in actively interacting with conic sections. Through paper folding, constructions with string and rocks, and connections to dynamic software, students learn to make geometric and algebraic connections. Leave with a packet of projects that make the vocabulary and general formulas make sense.
8-12 | INT | 550 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 32 | BT

Fry Bohlin, Carol
Preparing Middle School Mathematics
Teachers-Issues & Models
CAMTE’s Advocacy Committee has been focusing on middle school math teacher preparation (MSMTP) and will be sharing information on existing certification pathways, effective MSMTP models, and concerns about the Foundational-Level Mathematics credential, and conversations with the California Commission on Teacher Credentialing, and ideas for a possible middle school mathematics credential. If you have an interest in preparing excellent middle school mathematics teachers, come join the conversation!
6-8 | PRS | 409 | Saturday, 1:30 - 3:00 | Asilomar, Marlin
Co-presenter: Joanne Rossi Becker — Math Professor, San Jose State Univ

Fulton, Brad — Mistletoe Elem
Teaching 2-Digit Multiplication the Common Core Way
With the Common Core Standards, it is no longer enough to learn multiplication facts by rote; students must also understand multiplication. Learn how to teach 2-digit multiplication so that it is conceptually rich and accessible to students. Understanding of multiplication and fluency with problem solving will flow naturally from this approach. Handout available.
3-8 | PRS | 316 | Saturday, 11:00 - 12:00 | Asilomar, Nautilus East | BT

The Number Line Activity: Empowering Mathematical Thinking
Students can develop incredible fluency with mental mathematics using this easy-to-implement strategy. Adaptations make the lesson a perfect fit for arithmetic, fractions, decimals, percent, and algebra. A ready-for-Monday handout is available.
3-8 | PRS | 416 | Saturday, 1:30 - 3:00 | Asilomar, Nautilus East | BT

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

#CMCN15
Gaines, John — STEM Department Chair, GLAMC
Engaging Students in Mathematics with Project Based Learning
In this presentation, participants will explore a variety of strategies and resources to help them fully incorporate the project based learning model in their mathematics curriculum. They will have the opportunity to apply these strategies and resources and address a number of the Common Core State Standards as they experience a project based learning activity firsthand. Afterward, they will discuss ways of taking this activity to the next level by increasing the rigor and depth of inquiry.
Gl | INT | 447 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 28

Helping Parents Transition to the Common Core
In this presentation, we will explore a number of resources for educational leaders to use as their district begins addressing the needs of the parents. The parents present a unique opportunity for districts to reach out to the greater community and create a more cohesive learning environment that embraces the paradigm shift on a much broader scale. By educating and supporting parents through this transition, educational leaders will be able to instill solidarity through collaboration.
Ldship | PRS | 547 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 28

Gale, Mardi
Algebra Intervention, Rigor, Problem Solving and the CCSS
What’s rigour? What’s it look like for intervention? Examine essential elements for conceptually based instruction and algebra intervention that support the CCSS, embeds SMPs, emphasizes discourse, problem solving & writing. EL & PLC friendly. Engage in math, receive material that models the CCSS assessments.
8-12 | PRS | 310 | Saturday, 11:00 - 12:00 | Asilomar, Curlew | BT

Gaminio, Elizabeth — Research Associate
Mathematics for Students Via Professional Noticing
CCSS is structured to ensure mathematical success for all. What does all mean? How is this evidenced in students’ mathematical interactions? Through video, we invite you to notice and make decisions about how students approach mathematics. You will leave with tools that support counting, cardinality and whole number development to be used within your classroom.
PK-2 | INT | 104 | Saturday, 8:00 - 9:00 | Asilomar, Oak Shelter | BT
Co-presenter: Melinda Riccardi — Research Associate, AIMS Center for Math & Science Education

Giganti, Paul — Special Projects Chair, California Mathematics Council
Optical Art for Kids
The world of art intersects wonderfully with geometry and measurement, and no type of art crosses over into mathematics more than optical art. Come see how the artful use of geometry and careful measurement can create works of art that play tricks on your eyes and make you think you’re seeing things that aren’t there! Best of all, detailed instructions will be provided for half a dozen optical art projects that elementary and middle school students can do!
3-8 | PRS | 306 | Saturday, 11:00 - 12:00 | Asilomar, Scripps Conference | BT

Goldenstein, Donna
Enriching the Geometry/Measurement CCMS Content Through Art
This Make-It and Take-It session will focus on making line designs. These designs are geometric patterns formed entirely by the use of straight line segments that produce the illusion of a curve. After the paper and pencil activities, participants will make a string art project based on these designs. Geometry and measurement common core standards will be referenced as well as the mathematical practices of perseverance, precision, and using tools strategically.
3-8 | MIT | 461 | Saturday, 1:30 - 3:00 | PG Middle School, Library B | BT

Gomez, Emiliano — MDTP Site Director, UC Berkeley
Let’s Have Fun: Games for Mathematical Thinking
If we want to get to the ‘core’ of the mathematical practices, we must present students with engaging, appealing activities or projects that provide them with meaningful opportunities to develop these practices. Games of strategy are a perfect terrain for mathematical thinking, problem solving and argumentation while having fun. We will have stations with games. First we will play. Then we will bring out the mathematics and find the optimal strategy for each of several games.
Gl | INT | 443 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 24 | BT
Co-presenter: Risa Wolfson

Grip, Bruce
Parabolas with Life Applications
How can a spy listening device, a parabolic solar cooker, powerful lenses, and mirrors that focus light be used to bring meaning to parabolas? Our investigation will incorporate geometric transformations, the physics of reflection, proof involving congruent triangles and the distance formula. We will use Geogebra to generalize our results from hands-on activities.
8-12 | PRS | 534 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 36 | BT

Hakansson, Susie
Understand Ratios and Proportional Reasoning
We want ALL students to use problem solving to develop mathematical proficiency in proportional reasoning. In order for this to occur, we as teachers need to address the language needs of students, particularly English learners, and address our own understanding of proportional reasoning in order to design effective teaching practices. Be prepared to do some mathematics!
6-8 | INT | 508 | Saturday, 3:30 - 5:00 | Asilomar, Toyon | BT

Hakuta, Kenji — Education Professor at Stanford
Finally! Giving Students a Voice in Mathematics Classrooms.
How can we use a student observation form, with calibrated observers, to identify increase in quality of student-to-student discourse? How do we make sense of the evidence and act on our findings? Ten California school districts have collaborated to identify emerging structures to answer this question. With the support of experts like Dr. Kenji Hakuta, three different districts will share their story in building the capacity of school sites to consistently collect evidence of academic discourse.
Ldship | PRS | 303 | Saturday, 11:00 - 12:00 | Asilomar, Heather
Co-presenter: Emma Druitt — Secondary Math Administrator
| Speaker                          | Title/Role                        | Organization                        | Presentation Title                                                                 | Description                                                                                                                                                                                                                                                                                                                                                         | Date | Day | Time   | Room       | Notes |
|--------------------------------|----------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|--------|------------|-------|
| Hamada, Lori                    | Director, CMC Central President  | Providing a Mathematically Rich Classroom | CCSS calls for us to teach mathematics – much more than arithmetic and symbolic manipulation. What does this mean for teaching ‘math’? Are you and your colleagues ready for those implications? Join us for this critical conversation. | 3-B | INT | 154 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 36 | BT   |
| Co-presenter: Beverly Ford — Research Associate, AIMS Center for Math & Science Education | | | | | | |
| Hamon, Kathleen M.              | Math Specialist, CK-12 Foundation| Using Multi-Modal Curriculum Based on Digital Resources | Not all students learn the same way so students need to be offered much more than the one-size-fits-all solution offered by a traditional textbook. Finding and using different modalities from free, online resources like CK-12 will help students master concepts and improve their learning. Interactive, videos, games, activities, lessons, study guides and much more will be discussed. | 3-B | INT | 454 | Saturday, 1:30 -3:00 | PG Middle School, Rm 36 | BT   |
| Hattar, Michael                 |                                | Solving Common Core and Fun Problems with Confidence | Students learn when math is fun. The presentation will be an interactive. Participants will experience unique ideas that make common core problems fun! These methods are adaptable to the classroom and ready for you to use. All participants will receive a complimentary CD for all the work shown. | 8-12 | PRS | 144 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 25 | BT   |
| Co-presenter: Vic Hovsepian — Dean of Weekend Instruction, Rio Hondo College, Whittier CA | | | | | | |
| Heigre, Beverly                 | Math Teacher, Notre Dame HS      | Technology Used in the Flipped and Traditional Classroom | Learn how I use Google products, other freeware, and existing classroom technologies in my flipped and traditional classes. I’ll show you how I’ve successfully implemented these strategies in my classes from Algebra 1 through Trigonometry and Precalculus Honors. Join me to see how you can enhance your classroom instruction whether you have flipped none, some or all of your lessons. | 8-12 | PRS | 158 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 23 | BT   |
| Heiman, Siva                    |                                | Make a Special Abacus to See Core Addition Strategies | Make and take home a Visual Math Addition Facts Abacus. You’ll learn how your students can also sew one out of cardboard, a sheet protector, beads, and string. They’ll be able to use it to see the addition facts and figure out core strategies to remember them (doubles, neighbors, nine is one away from 10, sum is 10, etc.). You’ll also receive plans for Subtraction Facts, Multiplication Facts & Games Abacuses. | 8-12 | PRT | 561 | Saturday, 3:30 - 5:00 | PG Middle School, Library B | BT   |
| Henry, Denise                   | K-8 Mathematics Coach, Pajaro Valley USD | SBAC and Claims and Targets, Oh My! | Have you used assessment prompts to help guide instruction, focused on developing resilient learners? Are you looking for a way to correlate instructional activities to the skill sets needed to demonstrate the SBAC Achievement Levels? In this session we will share resources that can help you decode and connect SBAC Achievement Level Descriptors, clusters, and standards. You will leave with ideas for activities, and a template to recreate the process back at your school. | 3-B | INT | 140 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 13 | BT   |
| Co-presenter: Frances Basich Whitney — Research, Accountability & Assessment Coordinator, Pajaro Valley USD | | | | | | |
| Hull Barnes, Lizzy              |                                | Bay Area Secondary Partners: San Francisco and Oakland | Math leaders from San Francisco and Oakland, with SERP partners and co-presenters Harold Asturias and Phil Daro, collaborated for 18 months on a secondary course sequence that aligns with the CCSS. Each district wrote a research based paper approved unanimously by their respective school boards, now guiding policy, teacher learning, and public outreach. Hear about the last two years of learning since the policies were passed, and how we continue to revise and refine our implementation. | | | | | | |
| Co-presenter: Phil Tucher — Manager, Mathematics, Oakland USD | | | | | | |
| Hutchison, Pamela               | Director, UC Davis Math Project  | A Night Out with Math: Supporting Parents and Students | Engaging and empowering parents is critical to student success in math. Participants will examine the use of Math Nights as a tool for engaging parents in deepening their knowledge and understanding of math while developing a toolkit of strategies, questions, activities and other resources they can use to support their child. Participants will explore activities designed to deepen students’ conceptual understanding of key math concepts and support the development of procedural fluency. | PK-5 | INT | 455 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 37 | BT   |
| Co-presenter: Diana Zaragoza — Associate Director, California Math Project at UC Davis | | | | | | |
| Johnson, Elizabeth             | Mathematics Teacher, Chico HS    | TI Graphing Calculators in CC Algebra/CC Integ 1 Statistics | Unfamiliar with and teaching the stats in CC Alg 1 or CC Integrated 1? We will do a lesson that covers the two variable stats standards in these courses. Bring your own TI graphing calculator. You don’t need to know how to use it. Stats topics include scatter plots, lines of best fit, Least Squares Regression Lines, residuals and residual plots, the coefficient of correlation, R-squared, and association vs. causation. Very fast paced but handouts will aide in filling gaps. | 8-12 | INT | 541 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 21Lab | BT   |

Speaker Evaluation Form

#CMCN15
Jusiak, Jodi — Julia Morgan Sch for Girls
Hand Games, Logic Games and Games for Practice
Game on! Each hour during the day different elementary, middle, and high school teachers will share games they have been using with their students. There are games for practice, strategy games from the ComMuniCator, and hand games. Different games will be played and highlighted each hour.
PK-5 | W | 262 | Saturday, 9:30 - 10:30 | PG Middle School, Library C
Co-presenter: Elizabeth Schieth and Amber Williams

Kaplinsky, Robert
How Old Is the Shepherd?
Learn how implementing real-world problem-based lessons and higher depth of knowledge questions help students develop deeper understandings and make sense of mathematics while avoiding becoming mindless math robots. Leave with free online resources.
6-8 | INT | 518 | Saturday, 3:30 - 5:00 | Asilomar, Merrill Hall | BT

Kenyon, Glenn
Rich Math Tasks as Language Catalysts
Our English Language Learners deserve meaningful access to grade-level math content. Complex texts and intellectually challenging activities are integral to both CCSS-M and California ELD Standards. This presentation demonstrates how to maintain high cognitive demand while differentiating instruction and promoting meaningful interactions between all students. Participants will experience the 3 Read Protocol while working on a rich math task from SFUSD’s Math Core Curriculum.
PK-5 | INT | 540 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 13 | BT
Co-presenter: Alison Eiworth — Math Content Specialist, SFUSD

Khalsa, Arjan — CEO, Conceptua Math
Unraveling Whole Numbers and Fractions on the Number Line
Learn how to help students effectively use the number line to round whole numbers, reinforce the understanding of fractions as numbers, deepen understanding of magnitude, and make comparisons. Hands-on strategies for addressing the Common Core content and practice standards along with free online tools will be presented. This workshop will focus on the importance of the number line as a representational tool in developing an understanding of magnitude of whole numbers and fractions.
3-5 | INT | 108 | Saturday, 8:00 - 9:00 | Asilomar, Toyon | BT
Co-presenter: Julie McNamara — Assistant Professor, Cal State East Bay

Khare, Deepa
Communicating Math Through Vocabulary and Writing
Inspire students to unleash their use of precise, vocabulary and rigorous writing. Come to this interactive session to explore different strategies that can enhance students’ use of academic vocabulary and develop their writing skills. Participants will be able to leave the session with concrete tools (vocab foldables, writing graphic organizers & rubrics) to address Math Practice #3 and explore how explicitly addressing math vocabulary and writing in math deepens conceptual understanding.
8-12 | INT | 351 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 33 | BT
Co-presenter: Craig Rawe — Math Teacher, Aspire Public Schools

Kinch, Diane
CAMTE Business Meeting
Tchr Ed | PRS | 509 | Saturday, 3:30 - 5:00 | Asilomar, Marlin

Kirley, Kim — IPark School
Math and Literacy CCSS in a Joyful Kindergarten
Explore ways to integrate math and literacy. We'll incorporate complex thinking and math tools as we work on CCSS. I will show you ways to tweak your wonderful Kindergarten practices in order to deepen the mathematical teaching and learning. We will explore and interpret the Mathematical Practices at a primary level. We will focus on hands-on materials and projects appropriate for our youngest students. I'll share great resources to help you on your way!
PK-2 | PRS | 157 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 39

Kotko, Andy — First Grade Teacher, Mather Heights Elem
Adding Depth and Complexity in Primary Math
Common Core challenges teachers to move beyond the traditional surface-level math problems to help students construct a deep conceptual understanding of the patterns and order within mathematics. Primary students often give the illusion of mastering content by memorizing a particular problem format, but still lack a deep understanding of operations and number sense. See how you can add depth and complexity to familiar activities to challenge and deepen your students’ level of understanding.
PK-2 | PRS | 256 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 38 | BT

Kysh, Judith
Challenging the Eager Achievers in Untracked Classes
The elephant in the untracked classroom is the students who catch on quickly, anticipate your next move, and are anxious to move on. This session will focus on strategies for extending the engagement for these students. We will start with sample extensions based on standard lessons and consider alternative approaches to assignments. Groups will have the opportunity to discuss and propose additional ideas they have used or are considering, as well as practice extending a sample lesson.
8-12 | PRS | 236 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 7 | BT

Lamberton, Lori — Staff Teacher, The Exploratorium
Change/Time: Using Data to Explore Our Changing Environment
Mathematics is the language of science! Re-create our most important long-term environmental data set to understand our changing atmosphere. We will integrate Common Core Standards (modeling, proportional relationships, rates of change) and NGSS Practices (analyzing and interpreting data, using mathematics and computational thinking) in this hands-on workshop. Using data from NOAA and other resources, we will make graphical representations to model changes over time in our atmosphere.
8-12 | INT | 257 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 39 | BT

ELECTRONIC DEVICES
Out of respect for presenters and other participants, please turn off electronic devices during sessions.
Lane, Matt
**The Unreasonable Effectiveness of Video Games**
Smartphones provides us with powerful machines in our pockets and on-hand 24 hours a day. With such easy access, there’s a renewed push for so-called "educational games." But there’s rich mathematical thinking in all sorts of games, not just ones that are billed as educational. In this session, we’ll play some games, talk about some others, and explore examples of mathematics in games that don’t typically come to mind when thinking about education.

8-12 | INT | 145 | Saturday, 8:00 – 9:00 | PG Middle School, Rm 26

Lasek, Rachel — El Molino HS
**Using 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 use 21st Century Skills to check for daily understanding, without endless papers. Bring your laptop to learn first hand.

8-12 | PRS | 142 | Saturday, 8:00 – 9:00 | PG Middle School | Rm 22Lab | BT

**Math Tech-Toolbox**
Expected to be a 21st Century Skills teacher in a math classroom? Daunted by all the technology tools available? The CA SMPs expect our students to be able to use tools appropriately, to communicate readily, and to collaborate. Learn to model these practices with this tech toolbox and increase your ability to engage all students. Meet a variety of efficient technology tools for the math classroom, ranging from communication tools, classroom collaboration programs, assessment tools, and more.

8-12 | PRS | 242 | Saturday, 9:30 – 10:30 | PG Middle School, Rm 22Lab

Lazzarini, Jeanne — Math Master Teacher, RAFT
**Connect Real Life with STEM Activities**
Investigate the environment while make engaging STEM connections come alive! Using the Practices of CCSS and NGSS, this workshop illuminates connections to real life and integrates Science, Technology, Engineering, and Math by investigating intriguing hands-on, make and take activities that explore properties of earthquakes, windmills, simple machines, engineering designs, artistic expression, scientific and mathematical reasoning, and much more!

8-12 | MITI | 460 | Saturday, 1:30 – 3:00 | PG Middle School, Library A

**Make and Take Mathematical Cultural Figures**
Proportions, symmetry, area, volume, scale models, and more brought to life! Fun make and take Mathematical cultural figures (Hopi Kachina, African Akuaba, Japanese Kokeshi, and Russian Matryoshka) connect math with cultural history and art while supporting Math Practices of the Common Core: Modeling with Mathematics; Looking for and Making use of Structure; Reasoning Abstractly, Attending to Precision; and Looking for and Expressing Regularity in Repeated Reasoning! Explore relevant creativity!

3-8 | MITI | 560 | Saturday, 3:30 – 5:00 | PG Middle School, Library A

Leinwand, Steve — Researcher
**Mathematics Coaching: An Essential Component of Quality**
There is so much that I’ve learned about the non-negotiables and the nuances of coaching teachers of mathematics and mentoring math coaches. I am increasingly convinced the only hope of widespread, effective implementation of the Common Core requires strong coaching. This session will examine some of the insights I’ve developed with a particular focus on videos of the all-important coaching debriefing session after an observation.

8-12 | PRS | 253 | Saturday, 9:30 – 10:30 | PG Middle School, Auditorium | BT

Lemon, Travis — Teacher/Consultant, Mathematics Vision Project
**Dilation, Similarity, Trigonometry: Coherent, High Level DOK**
This session will focus on the mathematics of dilation, similarity and trigonometry. We will work tasks that highlight the progression of learning for the content identified. Participants will see the power of progression and making connections with students. Standards for Mathematical Practice will be highlighted as well as the Effective Mathematics Teaching Practices that are modeled and discussed. All tasks are free and available as open educational resources.

8-12 | INT | 440 | Saturday, 1:30 – 3:00 | PG Middle School, Rm 13 | BT
Co-presenter: Joleigh Honey

Lewis, Rebecca — Director, Educational Programs
**“Clap Like Me” for Early Math Learning – Birth to Five**
The Core of early math learning begins at home by making numeracy a natural part of everyday. Experience CMC’s “PD in Your Pocket” and take away Early Learning Math at Home (English & Spanish). Share activities with families, your children or grandchildren.

PK-2 | INT | 457 | Saturday, 1:30 – 3:00 | PG Middle School, Rm 39 | BT
Co-presenter: Vicki Vierra — K-12 Math Specialist, Ventura COE

Liang, Jane — Calif Dept of Education
**From Standards to Assessments, Now What: A CDE Update**
With the adoptions of Common Core State Standards and the Next Generation of Science Standards as part of California standards, the development of curriculum frameworks, the implementation of California Assessment of Student Performance and Progress (CAASPP) system, the California Department of Education (CDE), under the direction of State Board of Education, in collaboration with stakeholders, is developing the new accountability system. This session will provide an update on the recent activities in CDE to support local educational agencies to improve California schools and districts.

8-12 | W | 134 | Saturday, 8:00 – 9:00 | PG Middle School, Rm 5

Liu, Celine — Math Specialist
**Improving Outcomes Through Family and Community Engagement**
Family and community engagement is a powerful tool for improving student outcomes. Join the team from the Alameda County Office of Education as we share some research on family engagement and discuss how the Common Core State Math Standards are a lens to make parents and family’s authentic partners in the various learning communities we support.

3-8 | INT | 110 | Saturday, 8:00 – 9:00 | Asilomar, Curlew | BT
Co-presenter: Juwen Lam — Professional Expert, Alameda COE
Luberoff, Eli — Founder, DEMOS  
**Technology and Intellectual Need**  
Every math notation, every word, every technique, solved a problem for someone somewhere. In this session, we’ll explore how to use technology to place students in that same situation of intellectual need. In doing so, we’ll see how to transform some of the most frustrating and tedious tasks — e.g., memorizing mathematical vocabulary lists — into some of the most interesting.

8-12 | INT | 406 | Saturday, 1:30 - 3:00 | Asilomar | Scripps Conference | BT

Magner, Philip  
**Beyond Euler’s Line**  
Euler’s Line for a Triangle includes at least the circumcenter, orthocenter, and centroid. What is Simson’s Line and DeGrande’s Line for any triangle? We will use a MIRA and TI NSpire/Navigator system to find these lines. Participants will learn the following:  
*How to find Simson’s Line and DeGrande’s Line for any triangle.*  
*Introduce to various features of the TI Nspire CAS handheld in the geometry application including transformations, math draw, locus, live presenter, and quick polls.*

8-12 | INT | 244 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 25 | BT

Magyar, Melissa — Teacher, Longwood  
**Counting Collections: Build Skills Through Counting**  
The Counting Collections activity gives students a chance to experience counting real world items while building number sense and computation skills. It can easily be differentiated and modified to meet students’ needs throughout the year. In this session, you will:  
1) Learn the format and schedule of a Counting Collections lesson,  
2) View first grade students using Counting Collections and Math Practices,  
3) Receive enough materials and training to start your own Counting Collections right away.

PK-2 | INT | 346 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 27 | BT

Mahlstedt, John — Teacher, Livermore Valley Charter  
**Surviving the Apocalypse...with Math**  
Do your students have the math skills to survive an apocalypse? Do YOU? Come find out in this interactive session where you’ll learn how to create an immersive experience for students that will force them to use their math skills and problem solving to survive an apocalypse. The mathematical practices will be front and center as participants must band together and figure out how to survive when the world falls apart. You’ll enjoy this experience as much as your students will!

6-8 | INT | 516 | Saturday, 3:30 - 5:00 | Asilomar, Nautilus East | BT

Marti, Andres — Math Content Specialist, SFUSD Curr. and Inst.  
**Statistics and Probability in Grades 6-11 with Technology**  
The focus on statistics and probability in middle and high school is a significant new shift. Experience activities that you can do with students, both with and without technology, while discussing statistical representations, measures of spread and variability, scatterplots, regression, two-way tables, and how probability and statistics are related. A variety of free apps, software, and websites will be featured that secondary teachers can use to bring dynamic representations to their students.

8-12 | PRS | 235 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 6 | BT

McCarthy, Kathleen — K-2 Math Coach  
**The Nimble Number Line**  
The number line is often an underutilized tool that can foster number sense and operational proficieny. This session explores the importance of the number line as a mathematical model for helping children develop greater flexibility in mental arithmetic.

PK-2 | PRS | 334 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 5 | BT

McEntee, Rhonda — Brook Knoll Elem  
**The Art of Effective Questioning**  
In this fast-paced session you will learn the five principles of Effective Questioning. We’ll examine the levels of Depth of Knowledge, (DOK), and understand the correlation between them and closed and open questions. I’ll show you how easy it is to turn a closed question into an open question. You’ll leave energized and ready to promote effective questioning strategies first thing Monday morning! And in no time your students will be demonstrating higher levels of conceptual understanding.

3-5 | INT | 307 | Saturday, 11:00 - 12:00 | Asilomar, Acacia | BT

McClean, Peggy — Math Specialist, Peggy McLean Consulting  
**Geoboard/Dot Paper Investigations = CCSS Math Practices**  
Making sense of problems, modeling with tools, reasoning quantitatively, constructing arguments and critiquing reasoning of others happen simultaneously when pursuing interesting investigations. With geoboards and dot paper, design polygons to fit specific rules, discover relationships of area and perimeter, and build fractions. Investigations will strengthen math skills and provide opportunities to discover formulas. Games that support concepts will be shared. Handout provided.

3-5 | INT | 147 | Saturday, 8:30 - 9:00 | PG Middle School, Rm 28 | BT

Mehran, Jeanie — Founder, Melon Rind  
**Whimsy + Imagination = Math**  
Do you know a student who’s a creator, inventor or storyteller? Appeal to the creative right-brainers in the classroom by understanding the way they see the world. Take a look at a math class through the lens of the super imaginative kids to understand what is meaningful to them. We experimented with art, stories and activities. Hear how pre-K through 5th graders reacted when we introduced them to games that reinforced math skills. Learn which activities had the kids asking for more math.

PK-5 | PRS | 151 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 33 | BT

Miller, Lisa — District Academic Specialist, Napa Valley USD  
**Using the Growth Mindset to Help All Learners Be Successful**  
How do we help all learners, including English language learners, special education students, and other at-risk students be successful with Common Core math? Learn strategies for using the growth mindset to help all students engage in a math classroom. Participants will explore ways to set up a growth mindset culture in their classes and look at methods to have students track their own progress. Also, learn how teacher teams can work together to intentionally teach the growth mindset.

8-12 | PRS | 341 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 21Lab | BT
Moore, Sara — Director of Mathematics & Science
Linking Representation & Algorithm in Operations
Support comprehensive understanding of multiplication and division by using a variety of representations to work with whole numbers, and fractions. Experience practical strategies for helping students connect conceptual understanding of multiplication and division with the algorithms used for those operations. This session emphasizes that multiplication and division are the same operation for whole numbers & fractions and integrates conceptual understanding with procedural fluency.
3-S | INT | 542 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 2ZLab | BT

Muller, Eric — Senior Science Educator, Exploratorium
Having a Gas with Math: Geometry, Algebra and Air Pressure
Come expose yourself to the math in air pressure. This workshop will combine hands-on activities, principles of algebra and geometry, and the basic science of molecular motion to solve a few interesting math problems. We will figure out how much air force is on your body right now. We will discover and investigate some important mathematical relationships associated with gases. These activities were created at the Exploratorium Teacher Institute in San Francisco.
GI | INT | 146 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 27 | BT

Murray, Tom — Educational 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-B | INT | 246 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 27 | BT

Nank, Sean — American College of Education
Engagement Through Student Created Math Videos
I’ve never seen my students so engaged! Find out how students can create videos on their phone and how you can use the videos in the classroom. You will learn how to guide your students in choosing a CCSS-M standard and mathematical practice to make a two-minute video. Sample student videos from k-12 classrooms, a rubric for grading the videos, step by step directions guiding students in the creation of the videos, whole class follow-up questions, and tips for implementation will be provided.
GI | PRS | 250 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 32 | BT

Finally, a Free Online CCSS-M Textbook with Coherence!
Teachers, coaches, and domain specialists from across the country have created a coherent K-8 CCSS-M aligned math textbook complete with resources, classwork, homework, assessments, videos, and questioning strategies. Each unit has a balance of procedural, conceptual, and application lessons. Every Domain is thoughtfully woven throughout each grade level. Come learn how you can use this Learn Zillion textbook to supplement and even replace your current textbook!
GI | INT | 350 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 32 | BT

Newell, Christine — Math Project Coordinator, Stanislaus COE
Fractions: Reasoning Through Meaningful Discourse
In this interactive session, participants will reason about fractions through meaningful mathematical discourse, as expected of students in the CCSSM. We will engage in rich tasks that provide opportunities for students to engage in Mathematical Practice 3 and examine our role as teachers in facilitating these meaningful conversations. Participants will have an opportunity to watch and reflect on an episode of instruction and leave with new tools and strategies to apply to their own practice.
3-S | INT | 340 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 13 | BT
Co-presenter: Jamie Garner — Mathematics Project Coordinator, Stanislaus COE

Newton, Roberta — Newton Education Solutions
Math Running Records: A Framework for Fact Fluency
Math Running Records provides a foundational piece in the elementary school arithmetic gap. For like the pin drop on a gps, Math Running Records help us to locate exactly where a student is on the journey through basic facts and then they tell us step by step how to get to the next destination. In this session participants will learn what math running records are, how to administer and analyze them, and how to use them for ongoing classroom assessment.
PK-S | PRS | 315 | Saturday, 11:00 - 12:00 | Asilomar, Triton | BT

Nickerson, Rob — ORIGO Education
Be Intentional: Elevating the Mathematical Practices
Mathematically proficient students make sense of problems and reason logically as described by the 8 Standards of Mathematical Practices. Intentionally using rich, meaningful problems elevate the Practices so that students apply their conceptual understanding and procedures. Let’s be intentional about the importance of 8 Standards of Mathematical Practice in our classrooms.
3-S | INT | 407 | Saturday, 1:30 - 3:00 | Asilomar, Acacia | BT

Novelli, Barbara — Adjunct Faculty
Getting to the Core of Place Value in Primary Grades
Barbara will share many powerful ways to support primary students in understanding place value and how it relates to the operations of addition and subtraction. Engaging games, music and literature will be shared throughout the session as well as great class lessons. Let’s get our primary students on the path to place value understanding, which will support their future math success!
PK-2 | INT | 344 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 25 | BT

Teach Science—Teach Math
Science is the perfect context for teaching the core math standards as well as engaging students in Standards for Mathematical Practice. Science makes math relevant to students. 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-5 | INT | 444 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 25 | BT
Oloff-Lewis, Jennifer — Assistant Professor, CSU Chico
Engaging Students in Open-Ended Tasks
Well-developed open-ended tasks can lead to deep mathematical thinking and act as powerful assessment tools, immediately revealing student understanding, gaps, and misunderstandings. In this session, we will present, explore, and discuss open-ended tasks designed to formatively assess student understanding and analyze student work on these tasks. Attendees will investigate the nature of these tasks, develop their own examples, and take some examples home.
3-5 | INT | 205 | Saturday, 9:30 - 10:30 | Asilomar, Evergreen | BT

Orton, Chase — Center for Math and Teaching
Two-Way Frequency Tables: Teaching a New Statistics Standard
The CCSS asks students to investigate patterns of association in bivariate categorical data by creating and interpreting two-way frequency tables and constructing viable arguments (8.SP.4, S.ID.5). Through a collaborative and engaging exploration and discussion of real-world data, attendees will deepen their knowledge of two-way tables and experience a lesson pathway that will engage all learners. Attendees leave with conceptually scaffolded lesson resources they can use with their students.
8-12 | INT | 434 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 5 | BT
Co-presenter: Shelley Kriegler — President, Center for Math and Teaching

Otake, Joy — Math Content Specialist
A Journey Through Our Number System
What does it mean to teach operations from a Place Value perspective? To understand operations in our number system, Place Value must be apparent. Understanding how the concepts progress is fundamental to elementary/middle school math. Participants will learn that standard algorithms culminate a long progression of reasoning about quantities, base-ten, and the properties of operations. Activities will highlight Place Value across the grade levels and how the standards build conceptually K-5.
PK-5 | INT | 551 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 33 | BT
Co-presenter: Kathy Bradley — Math Content Specialist, San Francisco USD

Parker, Ruth — Math Collaborative
Bringing the SMP to Life in Classrooms
The Standards for Mathematical Practice call for deep changes in mathematics classrooms. This session is designed to help you experience and understand several specific classroom practices that help bring the Standards for Mathematical Practice to life in classrooms across the grades 4-16 continuum.
G1 | INT | 453 | Saturday, 1:30 - 3:00 | PG Middle School, Auditorium | BT

Paulus, Chris — Math Teacher, Santa Maria HS
Standard Deviation and Poe
Come experience how one curriculum introduces Normal Distribution and Standard Deviation using the works of Edgar Allen Poe. Participants will learn how the S.D. is introduced and then mastered so that students are able to answer a unit question based on the story ‘The Pit and the Pendulum’ by E. A. Poe.
8-12 | INT | 531 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 1 | BT

Pesavento, Laura — Bilingual Teacher, Schafer Park Elem
Number of the Day
We will present effective ideas of how to use number of the day differentiated for Pre K-K, and 1st-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, and more. We will demonstrate how tools will be used in multiple ways to represent a number or value and how dot and number talks can be incorporated into this routine.
PK-2 | INT | 234 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 5 | BT
Co-presenter: Dionne Iguale — Teacher, Fairview, Hayward USD

Phillippi, Kevin — Coordinator, San Bernardino City USD
Pathway to Problem Solving via the Mathematical Practices
The two most common barriers of problem solving are conceptual understanding and procedural fluency. Discover pathways to problem solving by integrating the SMPs into instructional routines. Participants will: Build knowledge of the relationship between conceptual understanding, procedural fluency and problem solving Understand effective teaching strategies that align with the SMPs to support math discourse, and develop questioning techniques to assist students in seeing real world applications.
3-5 | INT | 431 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 1 | BT
Co-presenter: Kari Freeman — Math Program Specialist

Picciotto, Henri — Author and Consultant
A Lab Gear Approach to Operations and Equivalent Expressions
The Common Core and common sense both require an introduction to basic algebraic concepts in middle school. The Lab Gear manipulatives help students transition from numbers to variables, and from the concrete to the abstract. We will work through activities that promote an understanding of operations and their properties, especially the distributive law, combining like terms, and factoring. This is a necessary prerequisite to understanding equivalent expressions, a key concept for grades 6-9.
6-8 | INT | 410 | Saturday, 1:30 - 3:00 | Asilomar, Curlew | BT

Pickford-Murray, Bree — The Bay School
Classroom Routines to Support Mathematical Discourse
Talking about math requires students to articulate ideas that may be works in progress. By doing so, students develop a deeper understanding of their own and their peers’ thinking and learn to more effectively communicate ideas. Planning for a mathematical conversation doesn’t have to take all day. Each of the activities introduced in this talk contains a “bite-sized” task that allows for rich mathematical discussion that can either be used on their own or as an add-on to an existing curriculum.
6-8 | PRS | 136 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 7 | BT

Pierson, Caryl — President
4 Essential Elements of RTI for Multiplication and Division
Administer pre-tests, make decisions, engage in explicit instruction using manipulatives with the CRA process and conclude with progress monitoring. All activities emphasize CCSS-CA Math Practice Standards for fractions.
6-8 | INT | 204 | Saturday, 9:30 - 10:30 | Asilomar, Oak Shelter | BT
Co-presenter: Gloria Jonas
Pitzer, Greg — Coord, Instructional Technology, Cupertino USD
Student Discourse Around Rigorous Tasks Using Technology
Going beyond just the numbers, students need to be able to explain the reasoning, thought process, and strategies for solving a problem AND be able to evaluate another student’s approach. With CCSS, there are numerous rigorous problems, Problems of Month, performance tasks to engage student. Bring a device and experience the workflow and integration of technology that challenges our students to capture their thinking, share with classmates and provide meaningful feedback to peers.
3-8 | INT | 206 | Saturday, 9:30 - 10:30 | Asilomar, Scripps Conference | BT
Co-presenter: Mary Aland-Enright — Coordinator, Math & Science, Cupertino USD

Powell, Beth — Director, Remediation A to Z
Identifying Breakdowns: Concept, Computation and Application
Teachers will learn how to identify and support underlying weaknesses in conceptual understanding, basic computations, and applying math knowledge to word problems. We will explore the connection between verbal and written language skills, memory and comprehension, and handwriting and spatial planning to better understand why students are struggling with explaining and retaining mathematics. Teachers will learn tips and tricks as well as a better sense of how to support each of their students.
PK-5 | PRS | 116 | Saturday, 8:00 - 9:00 | Asilomar, Nautilus East

Pitzen, Robert — Math Project Director, MathTIME
The Pedagogy of the Practices
The Math Practices are standards we want our students to embrace, identify and utilize as they engage in tasks set before them; they are not the posters on our walls. This session will address the necessary pedagogical moves teachers can make to put the SMPs in their proper place, in the hands of the students. As a math/instructional coach, I know these moves work, even outside of “math” time.
PK-5 | INT | 536 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 7 | BT

Pugh, Charlene — Teacher, Longwood Elem
You Can Do Mathematics with Fractions
Teach students division of fractions without ‘math magic.’ Show students the mathematics behind dividing fractions. Don’t dread fractions, enjoy them. Hands-on activities (tools), multiple strategies will be discussed. Take this strategy back to your site and make your fraction unit one to look forward to instead of dread.
3-8 | INT | 343 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 24 | BT

Ramos, Jeanne
Developing Students Algebraic Thinking and Academic Language
Participants will engage in activities that build students’ access to and confidence in doing rigorous mathematics, in particular for English learners, through problem-solving tasks that develop algebraic thinking and academic language proficiency. Tasks will embed multiple standards for mathematical practice. This session is appropriate for grades 6-9.
6-8 | INT | 404 | Saturday, 1:30 - 3:00 | Asilomar, Oak Shelter

Ray, Max — Professional Collaboration Facilitator, The Math Forum
Practicing the Five Practices Using Archived Student Work
The Five Practices for Orchestrating Productive Mathematical Discussion, described by Peg Smith and Mary Kay Stein, are vitally important for math teachers who want to use whole-group and small-group discussion of big ideas to help students learn. The practices are not simple fixes, though. They require teachers to practice to get better. In this session, we will use archived student work on rich tasks to practice the practices, and discuss how to build practice time into teacher planning time.
3-8 | INT | 533 | Saturday, 3:30 - 5:00 | PG Middle School, Auditorium | BT
Co-presenter: Anthony Hall

Reneau, Katie — Teacher
Rich Discussions and Rich Tasks in the MS Math Classroom
“What time does this class end?” “How much longer until we get out?” Be honest: How often do you hear that in your own classroom? Join us as we explore how to minimize these morale-crushing questions by incorporating rich tasks and facilitating all-hands-on-deck discussions. Boost engagement by inviting students to take ownership of their thinking and to develop the habit of asking “Why?”
6-8 | INT | 348 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 29 | BT
Co-presenter: Michael Fenton

Resek, Diane — Professor Emerita, San Francisco State Univ
Making Multiplication Tables Meaningful and Interesting
Participants will work in groups finding and then describing patterns in the multiplication table. The patterns will be explained in terms of the operation of multiplication. Other activities will require challenging thinking, but give practice with facts. These activities are appropriate for a diverse student population.
3-8 | INT | 342 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 22Lab | BT

Reyerson, Hayley — Math Teacher, Bellarmine College Prep
Discovering Newton
Take a walk with this fascinating man as he discovers his Calculus. Join him in his early years at Cambridge as he works out the General Binomial Theorem, does wondrous things with infinite series, and proves Heron’s Formula. Find out how he handles limits 200 years before Cauchy writes his first limit. By placing Calculus in a historical context you will enrich yourselves and add color to your presentations. Time permitting we will even mention his Calculus war with Leibnitz.
8-12 | PRS | 156 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 38

BUS SERVICE
Bus service will run between the Asilomar grounds and Pacific Grove Middle School on Friday from 4:00-9:30pm and on Saturday from 7:15am - 6:00pm
Roberts, Christine — Tulare COE
Mathematics and Integrated ELD: Supporting All Learners
Weave in supports for your English Learners in your math lessons to provide opportunities for access and to deepen student understanding. Explore CA Integrated ELD using the CA ELA/ELD Framework snapshots and additional examples created by TCOE.
GI | INT | 258 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 23 | BT
Co-presenter: Laura Gonzalez — ELA/ELD Staff Dev. and Curriculum Spec., Tulare COE

Assessment Practices + DOK = Deeper Understanding of Math
Use the formative assessment process to build a deeper understanding of mathematics; supporting students in achieving the depth and complexity of the CCSS-M standards, both in content and practice utilizing sample items of various Depth of Knowledge levels (DOK).
3-8 | INT | 358 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 23 | BT

Rock, Monica — Coordinator of Curr. and Inst., Hayward USD
Origami: Open Faced Dodecahedron Make and Take
In this Make and Take workshop participants will construct a dodecahedron and identify many of its geometric properties. Participants will learn the properties of polyhedras using the three-dimensional figure they build. In constructing this figure participants will experience the Standards of Mathematical Practice of perseverance, attending to precision, modeling and repeated reasoning, look for and make use of structure and use tools appropriately.
3-8 | MIT | 160 | Saturday, 8:00 - 9:00 | PG Middle School, Library A

Rodgers, Sherry — Shasta COE
Newcomers’ Session
GI | PRS | 115 | Saturday, 8:00 - 9:00 | Asilomar, Triton

Rodriguez, Marin — Math Teacher, St. Raymond School
Building Number Sense Through the Use of Primes
Prime numbers are a fundamental building block of math. In this hands-on workshop, we will get to know primes using card games that will build your students number sense in many of the key middle school concept areas. You will take away a games template that will help with mental multiplication skills, exponential notation, prime factorization, factor pairs, greatest common factor, least common multiple/denominator, understanding the concept of relatively prime, and simplifying fractions.
6-8 | INT | 245 | Saturday, 9:30 - 10:30 | PG Middle School | Rm 26 | BT

Rogers, Patricia — MS Math Teacher, Brownell MS
Persever as Students Develop Mathematical Strength
SMPs speak of students developing perseverance in solving problems. Teachers’ questions can move student thinking forward, but we need to be purposeful in our questioning techniques. How do we plan questions that encourage student thinking and reasoning? How can we provide questions to elicit thought, collaboration and reflection among our students? Using model problems, let’s discuss these ideas and provide some solid questioning strategies you can use as you plan your next unit of study.
3-8 | INT | 510 | Saturday, 3:30 - 5:00 | Asilomar, Curlew | BT

Rossi Becker, Joanne — San Jose State Univ
Orchestrating Math Practices 7 & 8 in Your Math Classroom
This session will focus on one big problem and extensions that show how Seeing Structure and Generalizing are inextricably linked. Participants will deepen their understanding of those two practices while exploring how the two practices can be facilitated in the classroom. After working on the problem and extensions and sharing solutions with the whole group, participants will examine and discuss student work on the problem.
6-8 | INT | 210 | Saturday, 9:30 - 10:30 | Asilomar, Curlew | BT

Ryan, Teresa — Math Academic Specialist, Napa Valley USD
Multiplication and Division of Fractions, The How and Why
Teachers will work with multiplication and division of fractions utilizing arrays, drawings and properties of operations to understand and teach these difficult topics. Ideas for modeling these practices, as well as using the SMP to deepen student understanding will be explored. Discussions may include coherence of CCSSM Grades 3-5 and how fraction sense is developed vertically.
3-5 | INT | 347 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 28 | BT

Saario, Lora — Math and Tech Integration Spec., Nueva School
Inspirational Math K-3
At NCTM this past year, Jo Boaler launched a Week of Inspirational Math with tasks and activities for K-12. With this session, participants will see how to launch and what to expect from a range of inspirational and classroom-tested lessons in K-3 Math. Participants will also try out some inspirational mathematical puzzles and games to see how they support mathematical practices as well as promote joy, interest, and excitement about math.
PK-2 | INT | 248 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 29 | BT

Salgarino, Ma Bernadette — Coordinator, Santa Clara COE
WestEd/SCALE’s Mathematics Assessment Literacy Toolkit
Experience the expansion of Building Educator Assessment Literacy through the Assessment Literacy Toolkit. This online resource offers tools to develop your knowledge of SBAC performance tasks, your understanding of how these tasks measure the CCSS and your capacity to score and analyze student work to inform instructional practice. The Toolkit offers scored and annotated student work samples that capture meaningful teacher annotations, reflections and insights into instructional strategies.
8-12 | INT | 333 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 4 | BT
Co-presenter: Donna Lione — Secondary Math Specialist/Coach, Temecula Valley USD

Schaffer, Karl — De Anza College
Where Patterns Collide: Mathematics and Dance
Pattern is a fundamental building block in many fields: dance uses patterns of movement in time and space and mathematics investigates patterns of number, shape and connection. We will see how to link the arts and sciences using accessible classroom activities for all levels that simultaneously explore concepts of pattern, sequence, permutation, and combination in both math and dance. These activities help students experience the “A” in STEAM!
GI | INT | 356 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 38 | BT
Schallau, Barbara — East Side UHSD
Teaching Operations for Fractions with Understanding
I will share activities that engage students while developing understanding of fractions and operations performed on fractions—especially division! Fraction bars, multiples strips and number lines will support this learning for ALL students. Activities shared provide strategies for students to recreate their learning, instead of memorizing rules. I provide questioning techniques that promote sense making of the numbers used to help teachers and students move away from gimmicks.
3-8 | INT | 357 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 39 | BT

Schierer, James — Math Teacher, King City HS
Are Your Seniors Financially Literate?
In today’s financial climate our students need to be financial literate more than ever. Come see a personal financial class that satisfies the third year college-prep math class, is A-G approved and is aligned to the Common Core. I will discuss my approach to the class, speakers that I bring in for their expertise on chapter topics and view sample projects that my students have done over the years.
8-12 | PRS | 133 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 4 | BT

Schultz, Tammy — Math Consultant, Monterey Bay Area Math Proj
Creating a Motivating Math Environment
Participants will learn how to motivate students to think deeply and share their ideas in a safe and supportive learning environment. This session will include ideas and strategies for fostering intellectually autonomous and growth-minded students who embrace the challenges of the Common Core State Standards.
PK-5 | INT | 505 | Saturday, 3:30 - 5:00 | Asilomar, Evergreen | BT

Serra, Michael
One’s Good, But More is Better
Good Mathematics instruction and good problem solving includes problems with multiple answers as well as problems with multiple approaches. Join us as we explore a number of interesting problems and explorations that can have multiple answers or are accessible by a variety of approaches.
8-12 | INT | 503 | Saturday, 3:30 - 5:00 | Asilomar, Heather | BT

Sgroi, Richard — Retired Math Teacher
Advanced Algebra With Financial Applications
This presentation offers teachers a rationale and framework for creating and teaching a quantitative financial literacy advanced algebra math course. Building on Algebra 1 skills, this applications-oriented and technology-dependent course uses selected Algebra 2, Statistics, Probability and Precalculus topics in the contexts of investing, creating a business, banking, credit, automobiles, employment, taxes, home ownership, retirement, and budgeting. Sample materials will be distributed.
8-12 | PRS | 433 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 4 | BT

Shay, Cynthia — Bilingual Kinder Teacher, Strobridge School
Reckenreks
What is a Reckenrek? Come and learn about the possibilities to create a tool adequate for Pre-K to second grade. Reckenreks teach students a way to manipulate the concept of composing, and decomposing numbers. Did you know that students learn to subitize with the rekenrek? Join us and walk away with a tool in your hands to implement in your own classroom by Monday!
PK-2 | MTI | 261 | Saturday, 9:30 - 10:30 | PG Middle School, Library B | BT

Shore, Chris — The Math Projects Journal
The Core of The Core
The Common Core is more than a list of standards; it is a Noble Cause. Hear what that ultimate purpose is, why it changes our job description, and how you can successfully live up to it.
3G | PRS | 243 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 24 | BT

The Practices Are for Kids
Yes, we know that the practices are for the students. But how do you teach them? Three activities will give a better understanding of what the practices are, how to teach them explicitly, and how to apply them in tasks.
8-12 | INT | 555 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 37 | BT

Short, James — Ventura COE
Using SMPs While Building Understanding of Expected Value
Participants will experience a sequence of activities from the California Math Project materials supporting CCSS-M Probability and Statistics, that develop a deep conceptual understanding of expected value. They will then compute the EV in different contexts, and use that to inform and justify decisions. Leave with classroom ready, student tested activities that engage students in using and developing the math practices as they develop an understanding of an important statistical tool.
8-12 | INT | 446 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 27 | BT

Shumate, Linda — Shasta COE
Newcomers’ Session
8-12 | W | 153 | Saturday, 8:00 - 9:00 | PG Middle School, Auditorium

Silver, Jody — Math Coach, Alvarado Elem
Infusing Math Into Project-Based Learning
Do you struggle with infusing math into the project-based learning experiences for your students? We did, too! Come learn how we intentionally created a project-based learning experience for 2nd graders that focused on real-life math. Then, learn how other elementary classes are thinking strategically about how the projects they’re creating can make math come alive for their students. We’ll share our thoughts, ideas, and some examples of end products created by students in grades 2-5.
3-5 | INT | 247 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 28
Co-presenter: Maureen Tecson — Classroom Teacher, New Haven USD

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.

ELECTRONIC DEVICES
Out of respect for presenters and other participants, please turn off electronic devices during sessions.
Sommer, Miriam — A Harrison MS
**Hand Games, Logic Game and Games for Practice**
Game on! Each hour during the day different elementary, middle, and high school teachers will share games they have been using with their students. There are games for practice, strategy games from the ComMuniCator, and hand games. Different games will be played and highlighted each hour.

PK-5 | W | 462 | Saturday, 1:30 - 3:00 | PG Middle School, Library C
Co-presenter: Nora Alexander Short and Kristina Garrison

Sornson, Robert
**Developing Competency for Grade 1 Essential Math Skills**
In this workshop we will consider which Grade 1 number skills and concepts must be deeply learned rather than just covered. Participants will understand the exact sequence of essential early math skills and concepts. You will explore simple and efficient ways to assess exactly which skills a child has, and which skills she is ready to learn.

PK-2 | INT | 148 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 29 | BT

Southam, Jon — Math Teacher, Sonoma Valley HS
**Introduction to Trig in Geometry with the Unit Circle**
Students are traditionally introduced to trigonometry through ratios of similar right triangles. But when students use calculators to find sine, cosine, and tangent values, they see a long string of digits that can seem difficult to understand. In this session, we will explore an alternative way to introduce trigonometry. Attendees will walk away with a sample trigonometry introduction lesson, a brief history of trigonometry, and current research about this approach.

8-12 | INT | 207 | Saturday, 9:30 - 10:30 | Asilomar, Acacia | BT

Stadel, Andrew
**Math Mistakes and Error Analysis: Diamonds in the Rough**
Explore why error analysis can help drive our instruction, curb student misconceptions, and strengthen formative assessment. Math mistakes are a valuable window into student thinking. We will turn student mistakes into free lesson ideas and opportunities for ongoing learning.

6-8 | INT | 418 | Saturday, 1:30 - 3:00 | Asilomar, Merrill Hall | BT

Standiford, Gail — CPM Regional Coordinator
**Data Collection: Using a CBR to Make the Math Real**
This hands-on workshop will use a $100 device to help students see what motion looks like in a graph, a table and an equation. Engaging activities appropriate for implementing secondary common core standards will be explored to help students build conceptual understanding of linear and non-linear functions.

8-12 | INT | 515 | Saturday, 3:30 - 5:00 | Asilomar, Triton | BT

Starnes, Daren
**Taming the AP Statistics Investigative Task**
The investigative task is a unique feature of the AP Statistics exam that promotes transference of knowledge, analysis, and synthesis of statistical content that is not part of most introductory statistics courses. In this session, we’ll examine strategies based on the mathematical practice standards – including team challenges, peer critiquing, and student presentations – to help students tackle these outside-the-box questions.

8-12 | INT | 354 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 36 | BT

Statmore, Elizabeth — Mathematics Teacher, Lowell HS
**Fulfilling the Promise of MP 3 Through Talking Points**
The number one predictor of success in group work is whether or not student talk rises to the level of what researchers call true “exploratory talk”; yet North American teachers have had few opportunities to learn and integrate these subtle but vital collaboration skills. To help realize the promise of Mathematical Practice 3, teachers in this session will learn efficient, evidence-based techniques and strategies from the University of Cambridge for improving the quality of student-student talk.

8-12 | INT | 355 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 37 | BT

Stetson, Deb — Project Director, CSU, Sacramento
**Get Students to Do the Sense-Making: Teach Without Telling**
Figuring something out for yourself makes you want to learn more, and makes you remember longer. How can we teach so students have a chance to figure things out in timely manner? Come see how to change a lesson using a cycle of teaching designed for students do the sense-making, figure out the rule, and reason why it works. This could be applied to get students to add two digit numbers without telling them how to line up addends, or to add fractions, or to square binomials.

3-8 | INT | 135 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 6 | BT
Co-presenter: Rick West — Mathematics Specialist, UC, Davis

Talumantez, Tracy — Program Specialist, Board of Education
**Pathway to Problem Solving via the Mathematical Practices**
The two most common barriers of problem solving are conceptual understanding and procedural fluency. Discover pathways to problem solving by integrating the SMPs into instructional routines. Participants will: Build knowledge of the relationship between conceptual understanding, procedural fluency, and problem solving; Understand effective teaching strategies that align with the SMPs to support math discourse; Develop questioning techniques to assist students in seeing real world applications.

PK-2 | INT | 544 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 25 | BT
Co-presenter: Kate Durst — Math and Science Program Specialist

**Speaker Evaluation Form**
[https://www.surveymonkey.com/r/CMC-NorthSpeakerEvaluations](https://www.surveymonkey.com/r/CMC-NorthSpeakerEvaluations)
Taylor, Megan — CEO & Founder, Trellis Education
Enacting the Gold-Standard in Teacher Education
We are at a rare point in history when there is widespread agreement among experts about how to create exceptional math teachers. Yet the number of people choosing to enter the profession each year continues to decline, and teacher turnover is alarming. Furthermore, debates about teacher effectiveness fill the media and polarize stakeholders. So here’s the $24,000 question: If we know effective ways to develop great teachers, why aren’t we doing it? Come chat with the founders of Trellis Ed.
GI | PRS | 309 | Saturday, 11:00 - 12:00 | Asilomar, Marin | BT

Taylor, Megan — CEO & Founder, Trellis Education
More Effective Assessments, More Effective Assessment Use
In a time when “Common Core” is used so often as a verb, changes to curricula and practice that address CCSS and SBAC in the right ways are often hard to define, let alone enact. In this session, come learn one process for assessing the effectiveness of an assessment (e.g., chapter test), adapting it in meaningful ways, and creating evaluative criteria that make the feedback you give students more valuable and grading more valid. Bring a test of your own you’d like to discuss.
S-12 | INT | 403 | Saturday, 1:30 - 3:00 | Asilomar, Heather | BT

Torres, Angela — Math Content Specialist
Video Club: Creating Vision and Pushing Teacher Beliefs
Ever wonder how to discuss classroom video with colleagues? Join us in experiencing the power of a community doing math, watching a video, and participating in a facilitated discussion centered around identifying student strengths. Hear how our teacher facilitated Video Club supports building a common vision of an equitable math classroom for teaching communities through pushing on teacher beliefs.
GI | INT | 506 | Saturday, 3:30 - 5:00 | Asilomar, Scripps Conference | BT
Co-presenter: Noam Szoke — Math Content Specialist, SFUSD

Town, James — Mathematics Specialist, Alameda COE
Making Math: Problem Solving in Action
Come learn how to integrate Making into your math classroom to promote reasoning and problem solving. Engage your students with making activities to create a culture of productive struggle. Four student-tested (and approved) challenges will be ready for your Making pleasure. These activities span the range from high technology to low technology, from Algebra to Geometry. You’ll also have a chance to grapple with how you might facilitate such activities and adapt them to your own class.
S-12 | INT | 543 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 24 | BT
Co-presenter: Celine Liu — Mathematics Specialist, Alameda COE

Trakas, Denise — Program Coordinator, Curriculum & Instruction
Moving Beyond Narration to Mathematical Argumentation
In this session we will connect how mathematical argumentation is necessary to get to the true essence of several of the math practices. We will identify the difference between narration and mathematical argumentation and posit instructional strategies for supporting students’ reasoning as they develop into mathematicians. Participants will analyze student work samples and leave with tools to support work in their own classrooms.
PK-5 | INT | 216 | Saturday, 9:30 - 10:30 | Asilomar, Nautilus East | BT
Co-presenter: Sarah Roggensack — Implementation Specialist, Washoe County SD

Trevino, Emma — Univ of Texas at Austin
We Need to Reason Why: Division of Fractions
Let’s 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.
6-8 | INT | 535 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 6 | BT
Co-presenter: Carmen Whitman — Director, Mathematics For All Consulting

Tsutsui, Crystal — James Monroe Elem
Hand Games, Logic Games and Games for Practice
Game on! Each hour during the day different elementary, middle, and high school teachers will share games they have been using with their students. There are games for practice, strategy games from the ComMuniCator, and hand games. Different games will be played and highlighted each hour.
PK-5 | W | 362 | Saturday, 11:00 - 12:00 | PG Middle School, Library C
Co-presenter: Chris Anschpaz Gina Godfrey

Wedel, Christine — Albert F. Biella Elem
Hand Games, Logic Games and Games for Practice
Game on! Each hour during the day different elementary, middle, and high school teachers will share games they have been using with their students. There are games for practice, strategy games from the ComMuniCator, and hand games. Different games will be played and highlighted each hour.
PK-5 | W | 562 | Saturday, 3:30 - 5:00 | PG Middle School, Library C
Co-presenter: Ed Locker Lynn Dun

Wegner, Carol — Abraham Lincoln
Hand Games, Logic Games and Games for Practice
Game on! Each hour during the day different elementary, middle, and high school teachers will share games they have been using with their students. There are games for practice, strategy games from the ComMuniCator, and hand games. Different games will be played and highlighted each hour.
PK-5 | W | 162 | Saturday, 8:00 - 9:00 | PG Middle School, Library C
Co-presenter: Alma Conde

Weimar, Stephen — The Math Forum
How Do We Focus on Thinking, Rather Than Thoughts?
Developing mathematical practices may be as important as learning content, but classrooms are largely organized to focus on thoughts, rather than thinking. How can we organize learning environments where students and teachers can focus on how we are thinking and what it means to get better at these practices? We will draw on the work of the Math Forum in the Virtual Math Teams project and online problem solving and explore ways to apply lessons learned to F2F as well as online contexts.
S-12 | INT | 533 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 4 | BT

Whitman, Carmen — Director, Mathematics For All Consulting
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.
6-8 | INT | 435 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 6 | BT
Co-presenter: Emma Trevino — Bechtel Math Project Mgr., San Francisco USD
Wickman, Debra — Program Specialist, Oceanside USD  
**Everyday, Every Class: Formative Assessment for SMPs**  
What does it mean to use formative assessment strategies to gauge students’ conceptual understanding and use of the SMPs? With the support of Dr. Tim Kanold and Dr. Dylan Williams, ten California school districts have been collaborating to answer this particular question on their journey toward full CCSS-M implementation. This session will highlight emerging best practices, lessons learned, and next steps that have been co-developed & piloted in three of those districts, Elk Grove, Sacramento City and Oceanside.  

Ldship | PRS | 215 | Saturday, 9:30 - 10:30 | Asilomar, Triton  
Co-presenter: Mikila Fetzer — Math Project Lead, Sacramento City USD

**Wicks, Jackie — Teacher**  
**Playing with Numbers**  
Got antsy kids? This session will help them expend some of that energy. We will introduce some math games that will get your students out of their seats! And as a bonus, help your students have a better understanding of numbers. The introduced activities will include ideas for the use of the number line, 100’s chart, and 10-frame. The tools we use are easy to make. When you return to your classroom on Monday, you can start using these ideas.  

PK.2 | INT | 345 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 26 | BT

**Willmore, Craig — ORIGO Education**  
**Math Games for Greater Gains**  
Participants will use helpful strategies in understanding and retaining addition/subtraction and multiplication/division facts, and then practice these strategies through games. Each participant will walk away with understanding of sensible strategies and games to help students with “Automaticity” of basic facts including connections to mathematical practices.  

3-5 | INT | 233 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 4 | BT

**Wilson, Johnnie — Teacher/Supervisor/Lecturer, UC Santa Cruz**  
**Teaching Word Problems Using Common Core Approaches**  
Three potent approaches to deconstructing and making sense of word problems will be presented. We will look at how to contextualize word problems to make them relevant to students. We will build word problems from given solutions, and consider ways to include worthwhile word problems across subjects. We will also make word problems an object of study, looking at the language that confuses and enables our students. Particular consideration for English Learners will be given.  

3-8 | INT | 255 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 37 | BT

**Woodbury, Estelle — MS Math Coordinator, Oakland USD**  
**Whose Job Is That? Team Roles for Heterogeneous Groupings**  
Putting students in groups requires more than just pushing desks together. Team roles support productive engagement of all students to contribute to and learn from small-group mathematical conversations. Team roles also increase student autonomy and ownership in their team and in the classroom as a whole. Learn how to select and assign team roles in your classroom, how team roles can develop the Standards for Mathematical Practice, and how to use roles to intervene with an unproductive team.  

G1 | PRS | 231 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 1 | BT  
Co-presenter: Geetha Lakshminarayanan — HS Math Spec., Oakland USD

**Wootton, Karen — Dir. of Assessment, CPM Educational Program**  
**Assessment: Why Bother?**  
With students taking so many high-stakes tests, why should we use valuable class time assessing what is being done in class? But then students can actually learn from the right type of assessment. Participants will broaden their view of what formative assessment means, and explore the power of effective feedback. Participants will learn techniques to make the process of giving feedback less daunting for the teacher, but just as valuable for the students.  

8-12 | INT | 334 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 5 | BT

**Xavier-Klotz, Marina — Teacher, Hayward USD**  
**Actively Engaging in the Mathematical Practices**  
Explore various activities in your K-2 classroom that engage students in the mathematical practices. Using math talks and number talks as a basis, we will engage in activities aligned to the mathematical practices, that encourage mathematical reasoning, argument, stamina, and precision. Participants will also have time to create the materials needed for the activities shown.  

PK.2 | INT | 546 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 27 | BT

**Yu, Julie — Director, Teacher Institute, Exploratorium**  
**The Math of Mirrors**  
Does a full-length mirror really need to be full-length? How do you draw a picture that is recognizable in a curved mirror? We’ll use a variety of mirrors and math to answer these questions and explore basic ideas in geometry and trigonometry. Mirrors provide an engaging, hands-on way with real life applications to investigate concepts such as angles, symmetry, and, of course, reflections.  

8-12 | INT | 305 | Saturday, 11:00 - 12:00 | Asilomar, Evergreen | BT
<table>
<thead>
<tr>
<th>Speaker</th>
<th>Presentation Title</th>
<th>Target Audience</th>
<th>Beginning/End</th>
<th>Comm Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albrecht, Masha</td>
<td>Student-Centered Projects to Enrich Algebra 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alejandro, Suzanne</td>
<td>Managing My Teacher Voice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amend-Ehn, Patricia</td>
<td>Making Connections Through Engineering</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Anderson, Jody</td>
<td>Create CC Lessons Using Mathematically-Based Children’s Lit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arth, Karen</td>
<td>Making Middle School Math Come Alive with Activities &amp; Games</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Baker, Beth</td>
<td>Student Teams-Max Learning, Min Chat! Seven Simple Steps</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balli, Jessica</td>
<td>Redefining Mathematical Proficiency: Walking the Walk</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Barboza, Bob</td>
<td>Kids Talk Radio Math &amp; The Occupy Mars Learning Adventures:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barlow, Rick</td>
<td>Building a Community of Learners—One Mistake At a Time</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Becker, Dean</td>
<td>Statistics Projects for the Aligned Classroom</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Biagetti, Stephanie</td>
<td>Facilitating Constructive Math Conversations in K-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blachman, Nancy</td>
<td>Delightful Mathematical Puzzles for Differentiated Learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blinstein, Anna</td>
<td>Journaling and Writing in Mathematics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bradley, Kathy</td>
<td>Building a CCSS-M Classroom with the Math Teaching Toolkit</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Brooking, Elizabeth</td>
<td>Simple Engineering to Apply Math Practices</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Brown Brooks, Gloria</td>
<td>Problem Solving with English Language Learners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown, Kyndall</td>
<td>Using Statistics to Make Connections in Grades 6-8</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Buckman, Danielle</td>
<td>Building Perseverance in a Culture of Exploration</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Buljan, Mia</td>
<td>Math Practices in Action: Problem Solving in Primary Classes</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burnison, Erica</td>
<td>Making Student Thinking Visible</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Burrill, Gail</td>
<td>The CCSSM Expressions, Equations and Structure</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Instruction That Makes a Difference</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Cagle, Peg</td>
<td>A Paper Cup + a Gust of Wind = Yearlong Rich Task</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Taking Action to Build a Better Profession, No Matter Your Title or Job Description</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Callahan, Patrick</td>
<td>Let’s Talk About Tests</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Carranza, Shelley</td>
<td>Google Docs and Desmos in the Secondary Math Class</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Carroll, Cathy</td>
<td>Learning from Research: Using Worked Examples in Math Class</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Chappill-Nichols, Shalek</td>
<td>Magical Math</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Measurement and Data, Oh My!</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Chavez-Goodman, Lucia</td>
<td>Math Stories and Mathematics Discourse</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Chialvo, Federico</td>
<td>Young Mathematicians &amp; the Thrill of Mathematical Discovery</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Childs, Leigh</td>
<td>Engaging Activities+Strategies = Numerically Nimble Students</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Commons, Joan</td>
<td>Planning and Orchestrating Productive Mathematics Discussion</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Costa, Elmano</td>
<td>Instruction for English Learners: Comprehension is at the Core</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Courant, Ted</td>
<td>Conic Sections: From Geometry to Kepler’s Laws</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
## Sessions at a Glance

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Presentation Title</th>
<th>Target Audience</th>
<th>Grade Levels</th>
<th>K-2</th>
<th>3-5</th>
<th>6-8</th>
<th>9-12</th>
<th>Laptop</th>
<th>Table</th>
<th>QA</th>
<th>Beginning Gin.</th>
<th>Comm. Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damm, Suzanne</td>
<td>Math: A Topic Worth Discussing. Teachers and Students Talk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extending Children’s Mathematics: Fractions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daro, Phil</td>
<td>Using Progressions to Make Progress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De Anda, Juana</td>
<td>Looking at a Math Task Through the Lens of the 5 Practices</td>
<td>√</td>
<td>6-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deis, Josh</td>
<td>Looking for Vital Student Actions in the Math Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas, Lew</td>
<td>Increasing Coherence in High School Math</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9-12</td>
<td></td>
</tr>
<tr>
<td>Dow, Seth</td>
<td>Write to Learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dueck, Jonathan</td>
<td>Building a Math Program Strong in Concept and Understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dylong, Joel</td>
<td>Can a Computer Really Teach Problem Solving?</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early, Katy</td>
<td>Discovering Divisibility with Pattern, Structure &amp; Purpose!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easterday, Joan</td>
<td>Statistics - Gummy Worms, Rubber Band Cars and Cubits</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farrand, Scott</td>
<td>Choose Examples to Promote Conjectures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fenton, Michael</td>
<td>Designing Rich Digital Tasks for the JH/HS Tech Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>My Journey From Worksheets To Rich Tasks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fetter, Annie</td>
<td>Using Technology to Focus on Conceptual Understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flashman, Martin</td>
<td>Equations, Functions, and Mapping Diagrams in Common Core</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster, David</td>
<td>Supporting Students in Agency, Identity and Authority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster, Hallie</td>
<td>Conics Rock!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fry Bohlin, Carol</td>
<td>Preparing Middle School Mathematics Teachers-issues &amp; Models</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulton, Brad</td>
<td>Teaching 2-Digit Multiplication the Common Core Way</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Number Line Activity: Empowering Mathematical Thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaines, John</td>
<td>Engaging Students in Mathematics with Project Based Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9-12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helping Parents Transition to the Common Core</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gale, Mardi</td>
<td>Algebra Intervention, Rigor, Problem Solving and the CCSS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gamino, Elizabeth</td>
<td>Mathematics for Students Via Professional Noticing</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giganti, Paul</td>
<td>Optical Art for Kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goldenstein, Donna</td>
<td>Enriching the Geometry/Measurement CCMS Content Through Art</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gomez, Emiliano</td>
<td>Let’s Have Fun: Games for Mathematical Thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grip, Bruce</td>
<td>Parabolas with Life Applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hakansson, Susie</td>
<td>Understand Ratios and Proportional Reasoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hakuta, Kenji</td>
<td>Finally Giving Students a Voice in Mathematics Classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamada, Lori</td>
<td>Providing a Mathematically Rich Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamon, Kathleen M.</td>
<td>Using Multi-Modal Curriculum Based on Digital Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hattar, Michael</td>
<td>Solving Common Core and Fun Problems with Confidence</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heigre, Beverly</td>
<td>Technology Used in the Flipped and Traditional Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heiman, Siva</td>
<td>Make a Special Abacus to See Core Addition Strategies</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henry, Denise</td>
<td>SBAC and Claims and Targets, Oh My!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hull Barnes, Lizzy</td>
<td>Bay Area Secondary Partners: San Francisco and Oakland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hutchison, Pamela</td>
<td>A Night Out with Math - Supporting Parents and Students</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaker</td>
<td>Presentation Title</td>
<td>Target Audience</td>
<td>6-8</td>
<td>9-12</td>
<td>UbD/Total</td>
<td>Q</td>
<td>Gil</td>
<td>Beginning Std.</td>
<td>Comm. Product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-----</td>
<td>------</td>
<td>-----------</td>
<td>---</td>
<td>-----</td>
<td>----------------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johnson, Elizabeth</td>
<td>TI Graphing Calculators in CC Algebra/CC Integ 1 Statistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jusiak, Jodi</td>
<td>Hand Games, Logic Games and Games for Practice</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaplinsky, Robert</td>
<td>How Old Is the Shepherd?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kelemnik, Grace</td>
<td>The Eight Standards for Mathematical Practice: Overwhelming and Under...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenyon, Glenn</td>
<td>Rich Math Tasks as Language Catalysts</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khalsa, Arjan</td>
<td>Unraveling Whole Numbers and Fractions on the Number Line</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khare, Deepti</td>
<td>Communicating Math Through Vocabulary and Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinch, Diane</td>
<td>CAMTE Business Meeting</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kirley, Kim</td>
<td>Math and Literacy CCSS in a Joyful Kindergarten</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kotko, Andy</td>
<td>Adding Depth and Complexity in Primary Math</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kysh, Judith</td>
<td>Challenging the Eager Achievers in Untracked Classes</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lambertson, Lori</td>
<td>Change/Time: Using Data to Explore Our Changing Environment</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane, Matt</td>
<td>The Unreasonable Effectiveness of Video Games</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lasek, Rachel</td>
<td>Math Tech-Toolbox</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lazzarini, Jeanne</td>
<td>Make and Take Mathematical Cultural Figures</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leinwand, Steve</td>
<td>Mathematics Coaching: An Essential Component of Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breathing Classroom Life into the NCTM Teaching Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching Math: Insights and Reflections on &gt;1000 Observations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemon, Travis</td>
<td>Dilation, Similarity, Trigonometry: Coherent, High Level DOK</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lewis, Rebecca</td>
<td>ÓClap Like MeO for Early Math Learning—Birth to Five</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liang, Jane</td>
<td>From Standards to Assessments, Now What: A CDE Update</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liu, Celine</td>
<td>Improving Outcomes Through Family and Community Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luberoff, Eli</td>
<td>Technology and Intellectual Need</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnier, Philip</td>
<td>Beyond EulerÖs Line</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magyar, Melissa</td>
<td>Counting Collections: Build Skills Through Counting</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahlstedt, John</td>
<td>Surviving the Apocalypse...with Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marti, Andres</td>
<td>Statistics and Probability in Grades 6-11 with Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCarthy, Kathleen</td>
<td>The Nimble Number Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McEntee, Rhonda</td>
<td>The Art of Effective Questioning</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLean, Peggy</td>
<td>Geoboard/Dot Paper Investigations = CCSS Math Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mehran, Jeanie</td>
<td>Whimsy + Imagination = Math</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miller, Lisa</td>
<td>Using the Growth Mindset to Help All Learners Be Successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore, Sara</td>
<td>Linking Representation &amp; Algorithm in Operations</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muller, Eric</td>
<td>Having a Gas with Math: Geometry, Algebra and Air Pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murray, Tom</td>
<td>Math Games: Hands-on, Minds-on Fun!</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nank, Sean</td>
<td>Engagement Through Student Created Math Videos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finally, a Free Online CCSS-M Textbook with Coherence!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaker</td>
<td>Presentation Title</td>
<td>Target Audience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newell, Christine</td>
<td>Fractions: Reasoning Through Meaningful Discourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newton, Roberta</td>
<td>Math Running Records: A Framework for Fact Fluency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickerson, Rob</td>
<td>Be Intentional: Elevating the Mathematical Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novelli, Barbara</td>
<td>Teach Science—Teach Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Getting to the Core of Place Value in Primary Grades</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oloff-Lewis, Jennifer</td>
<td>Engaging Students in Open-Ended Tasks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orton, Chase</td>
<td>Two-Way Frequency Tables: Teaching a New Statistics Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Journey Through Our Number System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bringing the SMP to Life in Classrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Changing the Classroom Culture Through Number Talks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard Deviation and Poe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of the Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pathway to Problem Solving via the Mathematical Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Lab Gear Approach to Operations and Equivalent Expressions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Classroom Routines to Support Mathematical Discourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Essential Elements of RTI for Multiplication and Division</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student Discourse Around Rigorous Tasks Using Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identifying Breakdowns: Concept, Computation and Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Pedagogy of the Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You Can Do Mathematics with Fractions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Developing Students Algebraic Thinking and Academic Language</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Practicing the Five Practices Using Archived Student Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rich Discussions and Rich Tasks in the MS Math Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Making Multiplication Tables Meaningful and Interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discovering Newton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assessment Practices + DOK = Deeper Understanding of Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics and Integrated ELD: Supporting All Learners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Origami: Open Faced Dodecahedron Make and Take</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Newcomers’ Session</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building Number Sense Through the Use of Primes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Persevere as Students Develop Mathematical Strength</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orchestrating Math Practices 7 &amp; 8 in Your Math Classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiplication and Division of Fractions, The How and Why</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspirational Math K-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WestEd/SCALE’s Mathematics Assessment Literacy Toolkit (ALT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where Patterns Collide: Mathematics and Dance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching Operations for Fractions with Understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are Your Seniors Financially Literate?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creating a Motivating Math Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Sessions at a Glance

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Presentation Title</th>
<th>Target Audience</th>
<th>2-5</th>
<th>6-8</th>
<th>9-12</th>
<th>LG</th>
<th>9-12</th>
<th>Comm. Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serra, Michael</td>
<td>One's Good, But More is Better</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sgroi, Richard</td>
<td>Advanced Algebra With Financial Applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shay, Cynthia</td>
<td>Rekenreks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shore, Chris</td>
<td>The Practices Are for Kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short, James</td>
<td>Using SMPs While Building Understanding of Expected Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shreve, Barbara</td>
<td>When the Task Is Not Enough: Pedagogy That Builds SMPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver, Jody</td>
<td>Infusing Math Into Project-Based Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sommer, Miriam</td>
<td>Hand Games, Logic Game and Games for Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sormson, Robert</td>
<td>Developing Competency for Grade 1 Essential Math Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southam, Jon</td>
<td>Introduction to Trig in Geometry with the Unit Circle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stadel, Andrew</td>
<td>Math Mistakes and Error Analysis: Diamonds in the Rough</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standiford, Gail</td>
<td>Data Collection: Using a CBR to Make the Math Real</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starnes, Daren</td>
<td>Taming the AP Statistics Investigative Task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statmore, Elizabeth</td>
<td>Fulfilling the Promise of MP 3 Through Talking Points</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stetson, Deb</td>
<td>Get Students to Do the Sense-Making: Teach Without Telling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Szoke, Noam</td>
<td>Math in the Moment: Exploring Number in Early Childhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talamantes, Tracy</td>
<td>Pathway to Problem Solving via the Mathematical Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taylor, Megan</td>
<td>More Effective Assessments, More Effective Assessment Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enacting the Gold-Standard in Teacher Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torres, Angela</td>
<td>Video Club: Creating Vision and Pushing Teacher Beliefs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Town, James</td>
<td>Making Math: Problem Solving in Action</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trakas, Denise</td>
<td>Moving Beyond Narration to Mathematical Argumentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trevino, Emma</td>
<td>We Need to Reason Why: Division of Fractions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsutsui, Crystal</td>
<td>Hand Games, Logic Games and Games for Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedel, Christine</td>
<td>Hand Games, Logic Games and Games for Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wegner, Carol</td>
<td>Hand Games, Logic Games and Games for Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weimar, Stephen</td>
<td>How Do We Focus on Thinking, Rather Than Thoughts?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whitman, Carmen</td>
<td>Let's Connect Proportional Reasoning With the Standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wickman, Debra</td>
<td>Everyday, Every Class: Formative Assessment for SMPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wicks, Jackie</td>
<td>Playing with Numbers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willmore, Craig</td>
<td>Math Games for Greater Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilson, Johnnie</td>
<td>Teaching Word Problems Using Common Core Approaches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodbury, Estelle</td>
<td>Whose Job Is That?: Team Roles for Heterogeneous Groupings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wootton, Karen</td>
<td>Assessment: Why Bother?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xavier-Klotz, Marina</td>
<td>Actively Engaging in the Mathematical Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yu, Julie</td>
<td>The Math of Mirrors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### EXHIBITS

<table>
<thead>
<tr>
<th>Company</th>
<th>PG Middle Gym</th>
<th>Company</th>
<th>PG Middle Gym</th>
</tr>
</thead>
<tbody>
<tr>
<td>3C Media Solutions</td>
<td>263</td>
<td>It’s About Time</td>
<td>229</td>
</tr>
<tr>
<td>Amplify</td>
<td>217</td>
<td>Math Magic Blocks</td>
<td>251</td>
</tr>
<tr>
<td>Bedford, Freeman &amp; Worth (BFW) Publishers</td>
<td>246</td>
<td>Math Teachers Press, Inc.</td>
<td>231-232</td>
</tr>
<tr>
<td>California Casualty Auto &amp; Home Insurance</td>
<td>245</td>
<td>McGraw-Hill Education</td>
<td>261-262</td>
</tr>
<tr>
<td>California JumpStart Coalition</td>
<td>243</td>
<td>Mentoring Minds</td>
<td>203</td>
</tr>
<tr>
<td>Carnegie Learning Inc</td>
<td>235</td>
<td>MIND Research Institute</td>
<td>248</td>
</tr>
<tr>
<td>Center For Math and Teaching</td>
<td>256</td>
<td>Moore Educational Resources/Mimio</td>
<td>241-242</td>
</tr>
<tr>
<td>CMC - Bag pickup</td>
<td>205</td>
<td>Motion Math</td>
<td>227</td>
</tr>
<tr>
<td>CMC - Exhibit / T-Shirts</td>
<td>204</td>
<td>Music Notes</td>
<td>249</td>
</tr>
<tr>
<td>CMC Member Kit</td>
<td>275</td>
<td>Nasco</td>
<td>211-213</td>
</tr>
<tr>
<td>CMC - Communicator</td>
<td>276-277</td>
<td>National Council of Teachers of Mathematics</td>
<td>218-219</td>
</tr>
<tr>
<td>College Board</td>
<td>209</td>
<td>Na#onal’Geographic’Learning/Cengage’Learning</td>
<td>225-226</td>
</tr>
<tr>
<td>ConsumerMath.org</td>
<td>252</td>
<td>ORIGO Education</td>
<td>237-239</td>
</tr>
<tr>
<td>Core Matters</td>
<td>244</td>
<td>Pearson</td>
<td>206-208</td>
</tr>
<tr>
<td>CPM Educational Program</td>
<td>253-254</td>
<td>Reasoning Mind</td>
<td>223</td>
</tr>
<tr>
<td>CSU/UC Mathematics Diagnostic Testing</td>
<td>236</td>
<td>Remediation A-Z</td>
<td>221</td>
</tr>
<tr>
<td>Curriculum Associates</td>
<td>202</td>
<td>Renaissance Learning</td>
<td>247</td>
</tr>
<tr>
<td>EAI Education</td>
<td>259</td>
<td>Stokes Publishing Company</td>
<td>267-268</td>
</tr>
<tr>
<td>Ed-Tex/Perfection Learning</td>
<td>214</td>
<td>TEAM UP For Common Core Learning</td>
<td>257</td>
</tr>
<tr>
<td>EdCaliber</td>
<td>234</td>
<td>TenMarks For Common Core Learning</td>
<td>257</td>
</tr>
<tr>
<td>Eureka Math</td>
<td>255</td>
<td>Texas Instruments</td>
<td>215-216</td>
</tr>
<tr>
<td>Heinemann Publishing</td>
<td>233</td>
<td>TPS Publishing Inc.</td>
<td>228</td>
</tr>
<tr>
<td>HMH Intervention Solutions Group</td>
<td>271</td>
<td>Walch Integrated Math</td>
<td>258</td>
</tr>
<tr>
<td>Houghton Mifflin Harcourt</td>
<td>272-274</td>
<td>Walden University</td>
<td>265</td>
</tr>
<tr>
<td>Industry Initiatives for Science and Math</td>
<td>222</td>
<td>Whizz Education</td>
<td>224</td>
</tr>
</tbody>
</table>

---

Pacific Grove Middle School  
Friday / 5:30 - 7:30pm  
Saturday / 7:30am - 5:30pm  
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.
### Exhibits — Pacific Grove Middle School

<table>
<thead>
<tr>
<th>271</th>
<th>272</th>
<th>273</th>
<th>274</th>
<th>275</th>
<th>276</th>
<th>277</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>209</th>
<th>219</th>
<th>229</th>
<th>239</th>
<th>249</th>
<th>260</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td>218</td>
<td>228</td>
<td>238</td>
<td>248</td>
<td>259</td>
</tr>
<tr>
<td>207</td>
<td>217</td>
<td>227</td>
<td>237</td>
<td>247</td>
<td>258</td>
</tr>
<tr>
<td>206</td>
<td>216</td>
<td>226</td>
<td>236</td>
<td>246</td>
<td>256</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>205</th>
<th>214</th>
<th>224</th>
<th>234</th>
<th>244</th>
<th>255</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>213</td>
<td>223</td>
<td>233</td>
<td>243</td>
<td>254</td>
</tr>
<tr>
<td>203</td>
<td>212</td>
<td>222</td>
<td>232</td>
<td>242</td>
<td>253</td>
</tr>
<tr>
<td>202</td>
<td>211</td>
<td>221</td>
<td>231</td>
<td>241</td>
<td>252</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>261</th>
<th>262</th>
<th>263</th>
<th>264</th>
<th>265</th>
<th>266</th>
<th>267</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- All Spaces Aisle 6'0" - 6'8"
- Unlabeled Spaces
- Total Spaces:
  - (68)
  - All Aisles Are As Noted
AWARD NOMINATIONS AND FINALISTS

- **Presidential Awards, www.cmc-math.org/PAEMST**
The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) are the nation’s highest honors for teachers of mathematics and science (including computer science). Awardees serve as models for their colleagues, inspiration to their communities, and leaders in the improvement of mathematics and science education. Since 1983, more than 4,400 teachers have been recognized for their contributions in the classroom and to their profession.

**2016 Elementary Teacher Nominations**
If you know great teachers, nominate them to join this prestigious network of professionals. The 2016 Awards will honor mathematics and science (including computer science) teachers working in grades K-6. Nominations close on April 1, 2016. The applications must be completed by May 1, 2016. Nominate a colleague at www.paemst.org

- **Announcing the 2015 PAEMST Math Finalists**
  - **Mrs. Katharine Clemmer**
    Katharine is a high school teacher at El Segundo High School in the El Segundo Unified School District. She has been teaching 22 years. She currently teaches AP Calculus and Pre-Calculus Honors.

  - **Mr. Clayton Dagler**
    Clayton is a high school teacher at Luther Burbank High School in the Sacramento City Unified School District. He has been teaching 15 years. He currently teaches Geometry as well as a computer programming and robotics class.

  - **Ms. Genevieve Esmende**
    Genevieve is a middle school teacher and Math Department Chair at Wangenheim Middle School in San Diego Unified School District. She has been teaching a total of 15 years, 12 at the middle school level and three at the elementary level. She currently teaches Common Core Math 7, Accelerated Math 7 and Integrated 1 Advanced.

  - **Ms. Maria McClain**
    Maria is a high school teacher at Deer Valley High School in the Antioch Unified School District. She has been teaching 26 years. She currently teaches AP Calculus AB, AP Statistics, and Pre-Calculus to students in grades 10-12.

  - **Mrs. Kathleen McHeffey**
    Kathleen is a middle school teacher at Meadowbrook Middle School in the Poway Unified School District. She has been teaching 25 years. She currently teaches Common Core Math 7 classes.

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

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.

ELECTRONIC DEVICES
Out of respect for presenters and other participants, please turn off electronic devices during sessions.
IGNITE!
Saturday 7:30 pm
Merrill Hall
@sweimar, emcee

@hatwitt • @MFAnnie • @SusieHakansson • @mathchic
@jdmahlstedt • @maxmathforum • @maryjr40_mary
@DavidRosenthal_ • @MathProjects • @cheesemonkeysf

5 minutes. 20 slides. Lots of ideas.

STAY CONNECTED WITH CMC

www.cmc-math.org
Board Members

2016-18

State

President .................................................. Vicki Vierra
Past President ........................................... Kathlan Latimer
President-Elect ........................................... Cathy Carroll
Secretary ................................................... Ruby Durias
Treasurer ................................................... Bruce Grip

North

President .................................................. Rebecca Lewis
Past President ........................................... April Goodman-Orcutt
President-Elect .......................................... Rita Nutsch
Vice President .......................................... Ana England
Secretary ................................................... Alison Nash
Treasurer ................................................... Brian Lim

Calendar of Math Events

April 11-13, 2016
NCSM Annual Conference, Oakland, CA

April 13-16, 2016
NCTM Annual Meeting and Exposition, San Francisco, CA

June 23-25, 2016
TODOS 2016 Conference, Scottsdale, AZ

October 2106
Mt. Lassen Math Conference

November 4-5, 2016
CMC-S Palm Springs Conference, Palm Springs, CA

December 2-4, 2016
CMC-N Asilomar Conference, Pacific Grove, CA

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

Affiliated Groups

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

CA Math Council to the Far North (CMCN)
Mary Ann Sheridan, masheri@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, crozier4mes@gmail.com

Alameda Contra Costa County
Math Educators (ACME)
David Lincoln, lincoln.hmath@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, lddilger@monterey.k12.ca.us

Northern Nevada Mathematics Council (NMC)
Teruni Lamberg, teruni@unr.edu

San Francisco Math Teachers Association (SFMTA)
Mark Mosheim, Mosheim@gmail.com

Exhibits

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 May Apply:
CMC-N members from any public or private school or district whose membership has been paid for the current school year.

Requirements:
√ Can only apply once per school year
√ Should have additional sources of funding
√ Application completed in full

Deadlines:
March 1 – $500 and November 1 – $500

Application:
1. Title Page
   a. Title of Grant
   b. Name of Grant Leader, CMC Member #, home phone and home email
   c. School name, address, fax and email
   d. Grant impact – number of students, teachers and percent members of minorities
   e. Maximum amount requested to implement the grant

2. Description of Materials Use
   a. How will materials be used and with what goals in mind?
   b. Statement of need as related to your students
   c. Project ed activities and timeline, if applicable
   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
   a. Items to be purchased
   b. Expected vendor and prices
   c. Additional funding sources available to you.
      (Grant requests maybe only partially funded.)
   d. Total amount requested

4. Approval Signatures
   a. Grant leader
   b. Building Site Administrator and Title

End Report:
Submit short report to the Mini-Grant committee by the end of the year on how the purchased materials were used and the effectiveness of the project.

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

Mail To

US Mail:
CMC-N Grants, c/o Faralée S Wright
PO Box 2738, Suisun City, CA 94585-5738

Via email:
faralée.wright@sbcglobal.net
(application cover page with signatures should be scanned)

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.
Building a Bridge to Student Success

Join your peers in San Francisco at the country’s leading math education event, where NCTM brings together thousands of education professionals to spur the exchange of ideas, present innovations in mathematics teaching, and drive quality learning practices that benefit you and your students.

- Explore hundreds of sessions and exhibits to advance your growth and career as an educator.
- Discover more about the latest teaching trends and topics in mathematics from PreK–12.
- Gain exposure to fresh ideas to bring back to your classroom.
- Engage, learn, and network with your colleagues from around the nation.

Save $80 with Early-Bird Registration

THE NCTM ANNUAL MEETING & EXPOSITION IS IDEAL FOR:

PreK–12 Teachers
New and Prospective Teachers
School and District Administrators
Math Teacher Educators
Math Coaches and Specialists
Math Researchers

Learn more at www.nctm.org/annual and follow us on

#NCTManual
The Spiral of Theodorus

The spiral on the front cover of this program is known as the Spiral of Theodorus. In the 5th century B.C., Theodorus of Cyrene, constructed this figure to prove that the square roots of the non-square whole numbers from 3 to 17 are all irrational. His spiral begins with an isosceles right triangle having leg length one. A new right triangle is formed with one leg being the hypotenuse of the previous triangle and the other leg having length one. The process is then repeated. Note that by the Pythagorean theorem, the length of the hypotenuse of the \( n \)th triangle is \( \sqrt{n + 1} \). (See Figure 1.)

The following activities are examples of how the spiral can be incorporated into lessons at various grade levels.

Activity 1:
At the elementary level, copies of the spiral can be given to the students. (Enlarge Figure 2.) Have them color their spirals. Encourage them to add other features to their drawings. For example, they could turn their spiral into a lollipop or a seashell. There is an excellent article with additional ideas at:
http://britton.disted.camosun.bc.ca/geometry/spiral.pdf

Activity 2:
Middle school students can create their own spirals with a 3 x 5 index card. Start with a sheet of paper, 8.5 x 11 inches, in landscape orientation. Locate the point that is 4.5 inches down from and 4.5 inches to the right of the upper left hand corner of the sheet. This point will be used for the common vertex of the right triangles. Place two marks on the index card, each an inch away from one corner. Then use that corner and the marks to construct the original isosceles right triangle. That same corner of the card will also be used to make the right angles in each of the following triangles. These triangles are then constructed by placing the card so that one edge lies along the hypotenuse of the previous triangle with the corner at the vertex of the other acute angle in the triangle. The mark determines the location of the vertex of the new triangle. (See Figure 3.)

Activity 3:
High school students can use trigonometry to determine the sum of the angles at the common vertex. Note that the 17th triangle overlaps the original right triangle. How many more triangles are required before the original triangle is overlapped again? And then a third time? Is there a pattern?

I would enjoy seeing examples of student work. Please feel free to email me, John Martin, at: jmartin@santarosa.edu
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 11-13, 2015

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

Visit the playground to learn about hands-on activities.

The following sessions will be held at the Pacific Grove Middle School Library:

**Fraction Sense** (8:00–9:00am)
- Hands-on solutions for working with fraction concepts

**Geometric Concepts** (9:30–10:30am)
- A variety of ways to teach geometry

**Number Sense** (11:00–12:00pm)
- How manipulatives help students understand place value, multiplication and coordinates

**Open Playground** (1:30–3:00pm)
- How you can use manipulatives in your classroom lessons

For more information visit hand2mind.com
**Speaker Evaluation Form**

https://www.surveymonkey.com/r/CMC-NorthSpeakerEvaluations

Please park on streets adjacent to the school.

**BUS SERVICE**

Bus service will run between the Asilomar grounds and Pacific Grove Middle School on Friday from 4:00-9:30pm and on Saturday from 7:15am - 6:00pm.