

ASILOMAR

Mathematics Conference

2011

www.cmc-math.org

MATHEMATICS

You can't spell S.T.E.M. without it.

Lift Equation for a Frisbee: $L = \frac{1}{2} \rho v^2 A C_L$

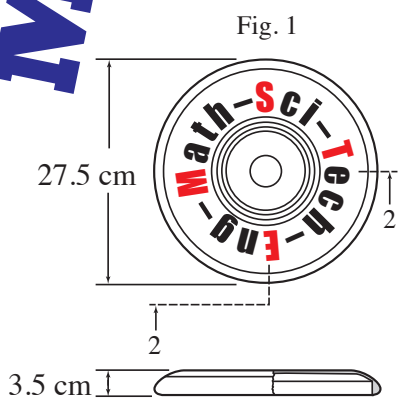
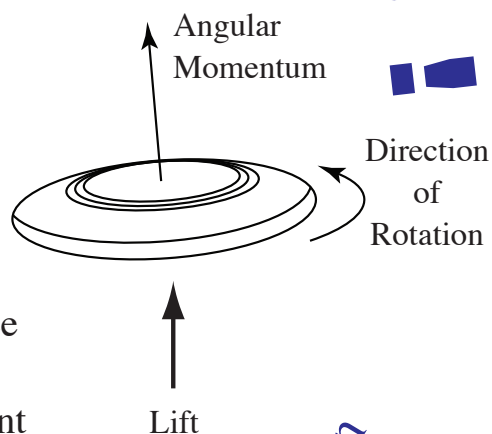


Fig. 1

Fig. 2

- L – lift force
- ρ – air density
- v – airspeed
- A – area of Frisbee
- C_L – lift coefficient



California Mathematics Council – Northern Section
Asilomar Conference 2011

Friday, December 2 - Sunday, December 4, 2011

Asilomar Conference Grounds • Pacific Grove Middle School, Pacific Grove

Welcome to Asilomar

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

A PLACE TO GET NEW IDEAS...

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

A PLACE TO LEARN WHAT IS NEW IN MATHEMATICS EDUCATION...

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

A PLACE TO NETWORK...

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

A WONDERFUL PLACE TO BE...

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

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~ NAME BADGES ~

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

A SPECIAL THANKS TO!

Conference Coordinator
Gretchen Muller

Registration
Julie Crozier

Program Chair
Rebecca Lewis

MINI CONFERENCE AT ASILOMAR

FRIDAY | 1:30-4:30 PM

Speaker	Topic	Grade Level	Room
Choate, Laura	Build Number Sense with Visual Models and Games	PK-2	Toyon
Cossey, Ruth	Proportional Reasoning and the Standards of Mathematical Practice	6-8	Triton
Farrand, Scott	What Are We Really Doing When We Solve Equations?	8-12	Evergreen
Gojak, Linda	What's Your Math Problem?	3-5	Oak Shelter
Kanold, Tim	Three Practices of Inspirational Leaders: Building Your Leadership Path as You Walk It!	Ldrshp	Surf & Sand
Zucker, Joshua	A Math Teachers' Circle: Functions, Algebra, and Symmetry	GI	Acacia

PROGRAM

	Time	Event	Location
Friday	3:00-7:00 PM	Registration	Admin. Building, Asilomar
	3:00-7:00 PM	Commercial Exhibits	Merrill Hall, Asilomar
	4:00-6:00 PM	Newcomers' Session	Curlew, Asilomar
	5:00-7:15 PM	Commercial Exhibits (materials for purchase)	Gym, Pacific Grove MS
	6:00-7:00 PM	Dinner	Dining Hall, Asilomar
	7:30-9:00 PM	KEYNOTE SESSION: (information on page 7) Cathy Seeley — Stars, Struggles, and Seizing Opportunities: Recognizing Every Student's Potential and Preparing Them for the Future	Auditorium, Pacific Grove MS
Saturday	7:00-8:15 AM	Breakfast	Dining Hall, Asilomar
	7:30 AM-12:00 PM	Registration	Admin. Building, Asilomar
	7:45-9:00 AM	Newcomers' Session	Curlew, Asilomar
	8:00 AM-5:30 PM	Commercial Exhibits (materials for purchase)	Gym, Pacific Grove MS
	8:00 AM-4:00 PM	Commercial Exhibits	Merrill Hall, Asilomar
	8:00 AM-12:00 PM	Sessions (matrix begins on page 10, speaker section begins on page 14)	
	8:00 AM-5:00 PM	Make-It, Take-It (refer to page 12)	Library, Pacific Grove MS
	12:00-1:30 PM	Lunch (refer to page 4)	Dining Hall, Asilomar
	1:30-5:00 PM	Sessions (matrix begins on page 10, speaker section begins on page 14)	
6:00-7:00 PM	Dinner	Dining Hall, Asilomar	
7:30-10:00 PM	Ignite! and President's Party - Everyone Welcome!	Fred Farr Forum, Asilomar	
Sunday	7:30-8:30 AM	Breakfast	Dining Hall, Asilomar
	8:00-8:45 AM	CMC-N Membership Meeting	Dining Hall, Asilomar
	9:00-10:15 AM	MORNING KEYNOTE SESSION: Alan Schoenfeld — Teaching Mathematical Sense-Making: Formative Assessment and the Common Core Standards	Merrill Hall, Asilomar
	10:15-10:45 AM	Coffee Break	
	10:45 AM-12:00 PM	MID-MORNING KEYNOTE SESSION: David Dockterman — Common Core, Uncommon Students	Merrill Hall, Asilomar

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

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

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

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

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

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

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



Ignite!

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

Ignite Presenters:

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

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

Lunch Options

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

First Tima at Asilomar ?

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

T-shirts and Sweatshirts

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



Conference Evaluation Form

Complete conference evaluations online _____ 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 _____ and _____.

CMC-NORTH OFFICERS

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Christine Robles

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Alison Nash

Newcomers' Orientation

Kathlan Latimer and
April Goodman-Orcutt

Program Logo and T-shirt Design

John Martin

Conference Program

Connie Anderson

CONFERENCE INFORMATION

Sessions

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

Presentations (PRS)

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

Hands-on Workshops (WKS)

Limited enrollment. Tickets are no longer needed for admission. Seats available on a first-come, first-served basis.

Interactive Sessions (INT)

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

Make-It, Take-It (MITI)

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

Session Capacity/Seating

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

First Time at Asilomar?

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

Commercial Exhibits

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

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

Parking

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

Disabled Services

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

College Credit

Course details and registration information are found on page 45.

Bus Service

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

Cell Phones and Pagers

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

Conference Day Assistance

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

Program Changes

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

Lunch Options

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

Meal Tickets

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

T-shirt and Sweatshirt Sales

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

Walking

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

Help Protect the Vegetation

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

Laura Choate — Teacher, Fallbrook Union Elementary SD

Build Number Sense with Visual Models and Games

Explore number relationships using visual models including dot cards, counters, ten frames, number lines, grids and hundred charts. Leave with classroom-ready games and strategies that help your students achieve success in counting, facts, place value and computation.

PK-2 | INT | 8 | Friday, 1:30 - 4:30 | Asilomar | Toyon | BT

Cossey, Ruth

Proportional Reasoning and the Standards of Mathematical Practice

The important content in middle school revolve around proportional reasoning, linear functions, probability and the geometry that supports all of the above. In this session, we'll look first at an assessment of early middle school student's preparation for the 6-8 Common Core Standards. Then we will examine ways to help youngsters zestfully dive into proportional reasoning while strengthening their mathematical character as suggested by the Standards of Mathematical Practice!

6-8 | PRS | 15 | Friday, 1:30 - 4:30 | Asilomar | Triton

Scott Farrand — Professor, CSU Sacramento

What Are We Really Doing When We Solve Equations?

You can think of solving equations as symbol manipulation. It is a logical process too, as stressed in the CCSS: "Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution." There is also a graphical view of the manipulation of equations to solve simultaneous equations. Come to expand your appreciation for the beauty of the logical and graphical perspectives.

8-12 | INT | 5 | Friday, 1:30 - 4:30 | Asilomar | Evergreen | BT

Co-presenter: Deb Stetson — CSU Sacramento

Linda Gojak — President-elect, National Council of Teachers of Mathematics

What's Your Math Problem?

The first standard for mathematical practice is "Make sense of problems and persevere in solving them." Let's take a look at

some rich problems, helping students develop problem solving strategies, and models for implementation and assessment.

Wondering how we will do all that in one afternoon? The key is finding connections so that all of these pieces comprise your daily instruction. Come ready to do some problem solving!

3-5 | WKS | 4 | Friday, 1:30 - 4:30 | Asilomar | Oak Shelter

Tim Kanold — Director, Mathematics Program Development and PLC School Leadership

Three Practices of Inspirational Leaders: Building Your Leadership Path as You Walk It!

It takes personal discipline as a teacher and leader to build an organizational legacy with others. It doesn't happen by chance.

You will not lead and just happen to luck into a great legacy.

Your area of influence—your N-S-E-W sphere of influence—the district, school, or school program of your area of leadership—will become legacy-worthy because, at some point, you intentionally realized that your work as a mathematics leader leaves an impact on the school organization and its people—Positive or Negative.

You are building a legacy of influence and inspiration brick by brick every day. In this motivational session, we will examine three daily legacy practices that math leaders commit to: they respond to failure, they prevent deep regret, and they choose the path of enduring inspiration. All participants will receive a copy of Tim Kanold's latest book, *The Five Disciplines of PLC Leaders*.

Ldrshp | PRS | 14 | Friday, 1:30 - 4:30 | Asilomar | Surf & Sand

Joshua Zucker — Director, Mathematical Sciences Research Institute

A Math Teachers' Circle: Functions, Algebra, and Symmetry

Beginning with arithmetic, we will develop multiple representations of a special function and discover deep patterns in its behavior. Along the way, we will explore a broad range of problem solving strategies such as symmetry and generalization, including correspondences to the Common Core Practice Standards and explanation of how these strategies apply outside of math. This problem also gives motivation for many algebraic ideas, increasing student engagement in core curricular topics.

6-12 | WKS | 7 | Friday, 1:30 - 4:30 | Asilomar | Acacia | BT

2012-13 BOARD MEMBERS

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North

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COMMERCIAL EXHIBITS

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

KEYNOTE SESSIONS

FRIDAY EVENING — PACIFIC GROVE MIDDLE SCHOOL, AUDITORIUM

7:30 - 9:00



Cathy Seeley

Stars, Struggles, and Seizing Opportunities: Recognizing Every Student's Potential and Preparing Them for the Future

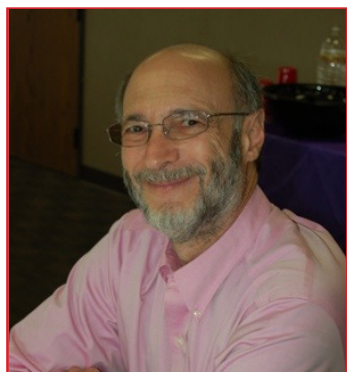
The Common Core State Standards offer an unprecedented opportunity to work together and streamline our efforts for improved student achievement across all boundaries. Can we use this opportunity to focus on what every student needs for the future and develop every student's potential?

GI | PRS | 53

SUNDAY MORNING — ASILOMAR, MERRILL HALL

9:00 - 10:15

10:45 - NOON



Alan Schoenfeld,
Professor, UC Berkeley

Teaching Mathematical Sense-Making: Formative Assessment and the Common Core Standards

Mathematics teaching and learning should be all about sense making, helping students to develop productive mathematical habits of mind. I'll give examples from a number of formative assessment lessons, showing how we can become more attuned to what our students are thinking mathematically, and help students become proficient at the important mathematical practices described in the Common Core State Standards.

GI | PRS | 1018



David Dockterman,
Chief Academic Officer,
Scholastic, Harvard
University

Common Core, Uncommon Students

The Common Core State Standards (CCSS) provides guidance on the high-leverage concepts, skills, and practices most critical for developing the mathematical competence necessary for college and career. The CCSS gives us a common content for all students. However, our students are far from common in the ways they learn that content. They come to school with different learned and innate capabilities and attitudes, and they progress at different paces. This talk will tap the latest cognitive research to describe the root of these differences and identify the mathematical capacities we can expect from (nearly) all students. We'll review what the research reveals about how we learn math and motivate students toward academic achievement. And we'll explore how to apply the research to keep learners within their zones of proximal development, where their cognitive reward pathways actually reward them for learning.

GI | PRS | 1118

SATURDAY HIGHLIGHTED SESSIONS

Time	Speaker	Session	Grade Level Type	Room
8:00 - 9:00	Brown, Ron	Rock Your Math Class	PK-2 PRS	Kiln
	Cook, Marcy	Think and Touch: Hands-on Activities for All	PK-2 INT	PG Middle Auditorium
	Greco, Jim	Algebra Dilemma: California Common Core State Standards on Content, Instruction, Assessment	6-12 INT	Fred Farr Forum
	Moskowitz, Stuart	Renew Yourself by Teaching Math in Another Country	GI PRS	Heather
9:30 - 10:30	Greco, Jim	STEM at the California Department of Education	GI PRS	Fred Farr Forum
	Kriegler, Shelley	Transformational Geometry in Eighth Grade? WOW That's New!	8-12 INT	Kiln
	Leinwand, Steven	Converting Typical PD into Real Teacher Development Practices	GI PRS	PG Middle Auditorium
	Warkentin, Don	Triangle Triage: When is a Right Triangle Elegant?	8-12 PRS	Heather
11:00 - 12:00	Cook, Marcy	Mathematical Problem Solving: The Thinking Sport	3-8 INT	Fred Farr Forum
	Farrand, Scott	Polynomial Surprises	8-C INT	PG Middle Auditorium
	Jacobs, Harold	Mathematical Snapshots of 2011	8-C PRS	Kiln
	Meyer, Dan	Why Students Hate Word Problems	GI PRS	Heather
1:30 - 3:00	Childs, Leigh	Engaging, Effective Strategies = Numerically Nimble Students	3-5 INT	Kiln
	Foster, David	Examples of Assessments and Curriculum for Common Core State Standards	GI PRS	PG Middle Auditorium
	Schaffer, Karl	Dancing with Mathematics: Exploring Rhythm and Symmetry	GI INT	Heather
	Serra, Michael	Teaching Sequential Reasoning Through Games and Puzzles	8-12 INT	Fred Farr Forum
3:30 - 5:00	Giganti, Paul	Fun with Binary Numbers: How 1s and 0s Can Teach Us a Lot About All Numbers and Base 10	3-8 INT	PG Middle Auditorium
	Gojak, Linda	Connecting Mathematical Practice to Content Using Rich Tasks	3-5 WKS	Fred Farr Forum
	Munshin, Sara	Activate CCSS for Mathematical Practice with NCSM's PD Model	6-8 WKS	Heather
	Zucker, Joshua	A Math Teachers' Circle: Coins in Twoland, and Place Value	GI WKS	Kiln

CALL FOR SPEAKERS

CMC-North 55th Annual Conference

Asilomar and Pacific Grove Middle School, Pacific Grove

Finding Common Ground with California Common Core Standards

November 30 - December 2, 2012

Proposals will be accepted online at www.cmc-math.org/activities/north_speakers.html from January 30 to April 21, 2012. We welcome new and returning speakers to submit proposals. Speaking at a conference is a great way to share your ideas and expertise with your colleagues.

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

CMC STUDENT ACTIVITIES TRUST

Tax Deductible Contribution

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

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

Applications

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

Natalie Mejia
4518 Hummel Drive
Santa Maria, CA 93455

HOW TO USE THE CONFERENCE TIME PLANNER

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

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

- If this is your first Asilomar math conference, be sure to drop in at the newcomers’ session Friday or Saturday morning.
- The lunch hour is 90-minutes and does not overlap any session.
- Many ticketed workshops may still have space available. Just go directly to the session and see if there’s space remaining. Seats that are still vacant five minutes after the start time may be filled on a first-come basis.
- Don’t forget to visit the commercial exhibits in Merrill Hall and at Pacific Grove Middle School, or the Make-It, Take-It workshops in the Middle School Library.

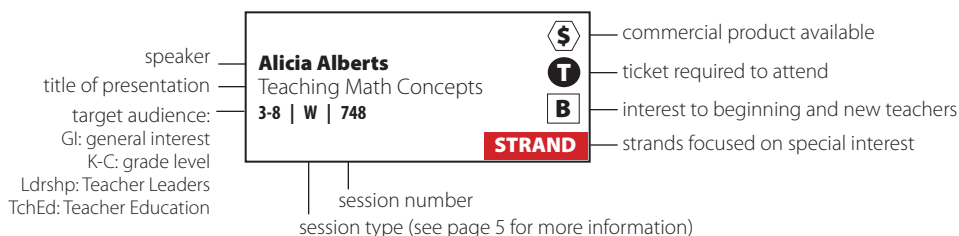
CONFERENCE DAY AND TIME PLANNER

	Time	Speaker / Topic	Location
Friday	6:00-7:00 PM	Dinner	Dining Hall, Asilomar
	7:30-9:00 PM	KEYNOTE SESSION: (information on page 7) Cathy Seeley — Stars, Struggles, and Seizing Opportunities: Recognizing Every Student’s Potential and Preparing Them for the Future	Auditorium, Pacific Grove MS
Saturday	7:00-8:15 AM	Breakfast	Dining Hall, Asilomar
	8:00-9:00 AM	1ST CHOICE:	
		2ND CHOICE:	
	9:30-10:30 AM	1ST CHOICE:	
		2ND CHOICE:	
	11:00 AM-12:00 PM	1ST CHOICE:	
		2ND CHOICE:	
	12:00-1:30 PM	Lunch / Commercial Products	
	1:30-3:00 PM	1ST CHOICE:	
		2ND CHOICE:	
3:30-5:00 PM	1ST CHOICE:		
	2ND CHOICE:		
7:30-10:00 PM	Ignite! and President’s Party - Everyone Welcome! (refer to page 4 for details)	Fred Farr Forum, Asilomar	
Sunday	7:30-8:30 AM	Breakfast	Dining Hall, Asilomar
	9:00-10:15 AM	MORNING KEYNOTE SESSION: Alan Schoenfeld — Teaching Mathematical Sense-Making: Formative Assessment and the Common Core Standards	Merrill Hall, Asilomar
	10:45 AM-12:00 PM	MID-MORNING KEYNOTE SESSION: David Dockterman — Common Core, Uncommon Students	Merrill Hall, Asilomar

ASILOMAR CONFERENCE GROUNDS—SATURDAY SESSIONS

Facility	8:00 - 9:00	9:30 - 10:30	11:00 - 12:00	1:30 - 3:00	3:30 - 5:00
FIRESIDE	Fred Farr Seats 140 Jim Greco Algebra Dilemma: CCSS on Content, Instruction, Assessment 6-12 INT 101 B	Jim Greco STEM at the California Department of Education GI PRS 201 B	Marcy Cook Mathematical Problem Solving: The Thinking Sport 3-8 INT 301 B	Michael Serra Teaching Sequential Reasoning Through Games and Puzzles 8-12 INT 401 B	Linda Gojak Connecting Mathematical Practice to Content Using Rich Tasks 3-5 WKS 501 B
	Kiln Seats 100 Ron Brown Rock Your Math Class PK-2 PRS 102 S B	Shelley Kriegler Transformational Geometry in Eighth Grade? That's New! 8-12 INT 202 S B	Harold Jacobs Mathematical Snapshots of 2011 8-C PRS 302 B	Leigh Childs Engaging, Effective Strategies = Numerically Nimble Students 3-5 INT 402 B	Joshua Zucker A Math Teachers' Circle: Coins in Twoland, and Place Value GI WKS 502 B
NORTH WD	Heather Seats 110 Stuart Moskowitz Renew Yourself by Teaching Math in Another Country GI PRS 103 B	Don Warkentin Triangle Triage: When is a Right Triangle Elegant? 8-12 PRS 203 B	Dan Meyer Why Students Hate Word Problems GI PRS 303 B	Karl Schaffer Dancing with Mathematics: Exploring Rhythm and Symmetry GI INT 403 B	Sara Munshin Activate CCSS for Mathematical Practice with NCSM's PD Model 6-8 WKS 503 LDRSHP
FIRESIDE	Oak Shelter Seats 36 Bix Beeman A Breathtakingly Gorgeous 107 Acres? How'd They Get That? 8-12 INT 104 B	Calisa Holm Easy Activities to Boost English Learners' Math Vocabulary 3-8 INT 204 B	Victor Selby STEM Power: From Pythagoras to Special Relativity and Beyond 8-12 PRS 304 B	Renee Goularte GeomARTry! PK-5 INT 404 B	Staci Erlandson BlockCreating an Environment of High Student Engagement PK-5 INT 504 B
	Evergreen Seats 36 Thomas Bjorkman Math Intervention Class for Middle Schools 6-8 PRS 105 S B		Stephanie Sisk-Hilton Data Representation of Scientific "Big Ideas" for Children PK-2 INT 305 B	Cathy Carroll Making Middle School Mathematics Accessible to English Learners 6-8 INT 405 B	Dean Gooch Discovering and Processing Numbers Found in the Wild 8-C PRS 505 B
NORTH WOODS	Acacia Seats 36 Diana Herrington Don't Forget the M in STEM 3-5 INT 107 B	Diana Herrington Don't Forget the M in STEM 6-12 INT 207 B	Ann Carlyle Expanding Math Talk With Our Youngest Students (Pre K) PK-2 PRS 307 B	Lisa Nussdorfer See What You Can Do with the Mobi—a Mobile SMARTboard! 8-12 INT 407 B	Masha Albrecht Projects and Group Tasks for Diverse Geometry Classrooms 8-12 WKS 507 B
	Toyon Seats 36 Gary Eisenberg The Three Secrets PK-2 INT 108 B	Emiliano Gomez Number Sense, Rational Expressions via Resistors in Circuits 6-12 INT 208 B	Joseph Fiedler Competencies in Math Expected of Entering College Students 8-C PRS 308 B	Richard Lautze Mathematical Reasoning and Cooperative Problem Solving 6-12 WKS 408 B	Modesto Tamez The World Will Not End in 2012, Maya Math 3-8 INT 508 B

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.

IMPORTANT NOTE

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

ASK ME!

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

ASILOMAR CONFERENCE GROUNDS—SATURDAY SESSIONS

Facility	8:00 - 9:00	9:30 - 10:30	11:00 - 12:00	1:30 - 3:00	3:30 - 5:00	
VIEW CRESCENT	Marlin Seats 40	CAMTE Business Meeting CAMTE	Jorgen Berglund Mathematics CSET's Impact on Subject Matter Competence Tchr Ed INT 209 CAMTE	Shuhua An Building Mathematics Specialist Programs Tchr Ed INT 309 B CAMTE	Carol Fry Bohlin Building Powerful Foundational-Level Mathematics Programs Tchr Ed INT 409 CAMTE	Heather Dallas The Common Core Standards Claim to be Mathematically Coherent Tchr Ed PRS 509 CAMTE
	Curlew Seats 40	Newsomer's Session GI PRS 110	Todd McPeak Higher Algebra Proficiency with Digital Learning Tools 8-12 PRS 210 B	Brian Lim Make Use of Structure in High School Mathematics Classes 8-12 PRS 310 B	Risa Wolfson STEM + A(rt) -> STEAM! A Math Art Integration Project 3-8 WKS 410	Karen Arth Algebra 2 and CCSS for Mathematical Practice: Where's the STEM? 8-12 WKS 510 B
SEA GALAXY	Surf / Sand Seats 35	Erich Zeller Building Visual Models for Access and Understanding 3-5 WKS 114	Greisy Winicki-Landman A Transformational Approach to Transform Your Classroom 8-12 WKS 214 B	Judith Kysh Group Tasks in Algebra that Support Math Discussion 6-12 PRS 314 B	Deb Stetson Equivalent Fractions: A Great Place for Sense Making 3-8 INT 414	Avery Pickford Making Common Core Process Standards More than an Afterthought GI PRS 514 B
	Triton Seats 36	Preety Tripathi Implementing CCCS: Sense-making Through Classroom Questions 8-C PRS 115 B	Sheldon Erickson Movie Math Mania: Engaging All Students to Learn with Fun 6-8 PRS 215 B	Ivan Cheng Thinking "Inside the Box" to Help All Students Learn Algebra 8-12 INT 315 B	Grace Coates Family Engineering: A Natural Intersection for Mathematics and Science 3-5 WKS 415	Barbara Post Reaching All Learners: Making a Difference 3-5 INT 515
	Nautilus E. Seats 30	Bob Loew National Board Certification 6-12 PRS 116	Carol Keig I'm All Alone: Networking for Isolated Algebra Teachers 8-12 INT 216	Elizabeth Brooking Teaching Earth Science through Math (grades 3-8) 3-8 INT 316 B	Vicki Vierra Think and Work as Mathematicians with Common Core Math Practices 6-8 WKS 416 B	David DeLaby Linear Systems: A Coherent Approach Accessible to All 6-12 PRS 516 B
	Nautilus W. Seats 30	Cheryl Roddick Math Mardi Gras 3-8 INT 117 B	Maureen Clements Compelling Literature to Support Math Content PK-2 PRS 217	Shelley Kriegler Using Linear Functions to Model Math Ideas 6-12 INT 317 B	Kathleen Jalalpour Adopting Singapore Math: A Case Study GI PRS 417 LDRSHP	Kim Kirley Not Your Usual Literacy Connection! PK-2 INT 517 B

SPECIAL INTEREST STRANDS

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

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

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

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

CONFERENCE EVALUATION FORM

Complete conference evaluations online at _____ 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 _____ and _____.



SATURDAY NIGHT CAROLING

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

PACIFIC GROVE MIDDLE SCHOOL—SATURDAY SESSIONS

Room	8:00 - 9:00	9:30 - 10:30	11:00 - 12:00	1:30 - 3:00	3:30 - 5:00
Library Seats 25	Renae Burson Reasoning with Rekenreks PK-2 WKS 130	Gloria Brown Brooks From Flatland to Zometown: A Journey into Other Dimensions 6-8 MITI 230 MITI	Patricia Ritchie Reese String Polyhedra with a Twist GI MITI 330 MITI	Sherry Rodgers Finding Patterns with JUNK 3-8 MITI 430 BT MITI	J. Christopher Paulus Origami and the Standards 6-12 INT 530 B
Room 1 Seats 30	Ivona Grzegorzczuk Making Algebra Fun with Games 6-12 INT 131	Clayton Dagler Using Flow Charts in the Math Classroom 6-12 PRS 231 B	Ann Lawrence Strategies for Helping Pre-Algebra Students Develop Symbol Sense 6-8 PRS 331 B	Susie Hakansson Develop and Understand Proportional Reasoning 3-8 WKS 431 TODOS	Gena Richman Common Core Practices Using Rigorous and Contextual Problems 3-5 WKS 531
Room 4 Seats 30	Leslie Good Explore the Beauty of Math Through Art 3-5 WKS 133	Donna Goldenstein Mathematics and the Arts: Thinking and Reasoning Through Art 3-5 PRS 233	Nancy Blachman Enjoyable Ways to Learn Math Facts via Magic, Puzzles, and Activities 3-5 INT 333 B	Gene Arendt Common Core Tips: Navigating the Teacher Tightrope with Technology 8-12 INT 433	Lynda Wormell Two-digit Multiplication and More Using Ten Square Graph Paper 3-8 WKS 533 B
Room 5 Seats 30	Tom Murray Blood Count: Are You At Risk? 6-8 WKS 134 B	Zhonghe Wu Integrated Activity: From Math and Science to Technology and Engineering 3-8 PRS 234	Lori Lambertson Our Atmosphere by the Numbers: Scale Models, Ratios, Percent 6-8 WKS 334 B	Janet Gillespie Make Every Day Count with Games for Number Concepts PK-2 WKS 434 B	Christopher Mackenzie An Appropriate Tool for Algebra is a Dynamic Spreadsheet! 8-12 WKS 534 B
Room 6 Seats 30	Helen Smiler The Skys' the Limit! Discovery, Basic Skills, Higher Math 6-8 PRS 135	Mardi Gale Essential Elements for Intervention: Not Business as Usual 6-12 PRS 235 B	Diane Resek Math Problems to Engage Students at Different Levels 3-8 INT 335 B	Sandy Silverman Add It All Up: Exploring K-1 Addition PK-2 WKS 435 B	Elmano Costa Core Practice for English Learners Is Comprehensible Input PK-5 INT 535 B
Room 7 Seats 30	Peggy McLean Developing Mathematical Reasoning with Pattern Blocks 3-5 WKS 136 B	Laura Choate Build Number Sense with Effective Games and Practices PK-2 INT 236 B	Julie Yu Geometry Through Mirrors 6-12 WKS 336 B	Deborah Lane Let's Better Understand the Value of the Place 3-8 INT 436	Christopher Casey Teaching Measures of Central Tendency in the Sixth-Grade Classroom 6-8 INT 536 B
Room 10 Seats 30	Laurie Boswell Big Numbers: Problems to Interest and Engage Students 6-8 INT 137 B	Suzanne Damm Common Core...What Can I Do Today? 3-8 INT 237	David Pugalee Mathematics Instruction using Decision Science and Engineering Tools 8-12 PRS 337 B	Heather Clark Looking at Long Division Through New Eyes 3-5 INT 437	Jeff Tobes Math and Carpentry for the Young 3-8 PRS 537 B
Room 12 Seats 30	Alison Mazzola Developing Algebraic Thinking in the Younger Grades PK-5 INT 139 B	Barbara Novelli Simple Strategies to Support Problem Solving in Your Primary Classroom PK-2 INT 239 B	Barbara Novelli Simple Strategies to Support Problem Solving in Your 3-5 Classroom 3-5 INT 339		Philip Magner Real Time Data and Functions in the Math Classroom 8-12 WKS 539 B
Room 13 Seats 30	Bernt Wahl Fractals: Geometry of Nature and Beyond 6-12 PRS 140 B	Ron Larson Real Math, Real Life: A New Course for High School Students 8-12 W 240	Sheri Willebrand Explore an Integrated Math and Science Investigation PK-2 WKS 340	Eric Muller Having a Gas with Math: Teaching Geometry and Algebra with Air Pressure 6-12 WKS 440 B	Lew Douglas Connecting Math and Music GI PRS 540
Room 21 Seats 30	Dave Youngs Mathematics in Support of Hands-on Science 3-8 WKS 141	Anna Wan Brice Using Data from NOAA in a Technology Based Lesson 6-12 INT 241 B	Elizabeth DeCarli Make it Move: Modeling Middle School Math with Technology 6-8 PRS 341 B	Jorgen Berglund Exploring Transformations with Dynamic Geometry 8-12 WKS 441 B	Anna Wan Brice From Web Sites to Programs, Technology in High School Geometry 8-12 PRS 541 B
Room 24 Seats 30	Lisa Miller Preparing Students for the High School Exit Exam in Math 8-12 PRS 143 B	Nancy Paulson Promote Discourse and Sense-Making with Math Games 6-8 INT 243 B	Kyle Atkin Statistics 101 using Sports and Technology 8-12 WKS 343 B	Julie McNamara Beyond Invert and Multiply: Make Sense of Fraction Computation 3-8 INT 443 B	Marian Pasternack Practice Makes Perfect? 6-8 INT 543 B

PACIFIC GROVE MIDDLE SCHOOL—SATURDAY SESSIONS

Room	8:00 - 9:00	9:30 - 10:30	11:00 - 12:00	1:30 - 3:00	3:30 - 5:00
Room 25 Seats 30	Randy Guzik What is Calculus All About? GI PRS 144 B	Shelley Carranza Making Math Visual with Geogebra 8-12 PRS 244 B	Brandon Matsumoto Using "0" and "1" to Connect Arithmetic to Algebra 6-8 PRS 344 B	Mark Freathy Building the Foundation for Algebra Using Factors and Terms 6-12 PRS 444 B	Robert Preston Making the Most of Your Everyday Mathematics Classroom GI INT 544 B
Room 26 Seats 30	Diane Whitfield Teaching Algebra using Technology to Struggling Students 8-12 WKS 145 \$ B	Nadine Medeiros Teaching Geometry in the 21st Century 8-12 PRS 245 B	Lynda Holman Shapes and More Shapes PK-2 WKS 345 B	Philip Magner Nspire Teacher Software as a Presentation Tool in the Math and Science Classroom 8-C WKS 445 B	Marilyn Trow Rebuilding Kids' Cognitive Structures for Understanding Math PK-5 INT 545 B
Room 27 Seats 30	Jody Anderson Assessment + Goal Setting = Achievement at Number CAMPP PK-2 INT 146 B	Marie Hogan Get Your Students Hooked on Noticing and Wondering 6-8 PRS 246 B	Peter Bloomsburgh An Intervention Program to Help Struggling Algebra Students 6-12 PRS 346 B	Sage (Ann) Moore Math Circles as Strategic Intervention 6-12 INT 446 B	Carol Dorf Talking Back to Mathematics: Poetry in the Mathematics Classroom 6-12 WKS 546 B
Room 28 Seats 30	Andres Marti Sketches of the Common Core: Modeling Algebra and Function Standards 8-12 PRS 147 \$ B	Karen Mayfield-Ingram Creating Equitable Lessons to Impact Students' Understanding GI PRS 247 B	Manny Barbara Preparing Students for Algebra in the 8th Grade 6-12 PRS 347 B	Breedeen Murray Beyond Sudoku: Use Logic Puzzles to Develop Reasoning Skills 6-12 INT 447 B	Victoria Brady Solar Calendar Geometry: It's All About Angles! 8-12 WKS 547 B
Room 29 Seats 30	Sara Moore Manipulatives for Mathematical Practices 3-8 WKS 148 B	William Bintz Rigor and the Common Core GI INT 248 B	Paul Rogers Smart-er Boards for Dummies 6-12 PRS 348 B	Kim Thomas Nspiring Minds Want to Know...Which Quadrilateral is It? 8-12 WKS 448 B	Veronica Carlson "Nspiring" the Algebra 1 Classroom 8-12 WKS 548 B
Room 36 Seats 30	Brandy Wieggers Mathematical Biology Beyond Fibonacci, Into the Real World 6-12 INT 154 B	Jenny Belcher Making Sense of Fractions and Operations with Fractions 3-8 INT 254 \$ B	Nicholas Restivo Generating Student Excitement for Problem Solving Using Technology 3-8 INT 354 B	John Bennett Brain Games! 6-12 PRS 454 BT \$ B	Henry Sun Free Technology for Enhancing Math Instruction 6-12 INT 554 B
Room 37 Seats 30	Jerry Cummins The TI-Nspire CS Graphing Calculator to Engage STEM Students 6-12 INT 155 \$ B	Dave Reiter Credit Cards and Exponential Growth: A Project-Based Approach 8-C PRS 255 B	David Randall The Fun, Fast and Easy Way to Solve Single-Variable Equations 8-12 INT 355 B	Michael Fenton Nspiring Navigations in Mathematics 8-12 WKS 455 B	Jennifer Dirksen ProofBlocks: A Visual Approach to Logic and Proof 8-12 WKS 555 B
Room 38 Seats 30	Dennis Mulhearn Area—No Problem? 3-8 WKS 156 B	Chuck Biehl Steiner Networks: A "Radical" Experience 8-12 INT 256 B	Patty Morrison Teaching Measurement and Physical Science Together in K-1 PK-2 PRS 356 B	Lisa Miller Strategies to Reach At Risk Student in Algebra 1 8-12 PRS 456 B	Kurt Kreith "The Cosmic Distance Ladder" Revisited 8-C PRS 556 B
Room 39 Seats 30	Kathleen Strange What Textbooks Don't Tell You About Fractions 3-8 INT 157 B	Matthieu Hamo All Students Can Be Problem Solvers! 3-8 INT 257 B	Allan Bellman You've Checked for Understanding—Now What? 8-12 INT 357 B	Daren Starnes Ten Terrific Applets for Teaching Probability and Statistics 8-12 PRS 457 B	Nicholas Restivo Unpacking Geometry Problems from Boxes You Make 3-8 WKS 557 B
Auditorium Seats 700	Marcy Cook Think and Touch: Hands-on Activities for All PK-2 INT 153 B	Steven Leinwand Converting Typical PD into Real Teacher Development Practices GI PRS 253 B	Scott Farrand Polynomial Surprises 8-C INT 353 B	David Foster Examples of Assessments and Curriculum for Common Core State Standards GI PRS 453 B LDRSHP	Paul Giganti Fun with Binary Numbers: How 1s and 0s Can Teach Us a Lot About All Numbers and Base 10 3-8 INT 553 B

CONFERENCE EVALUATION FORM

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HOW TO READ SPEAKER LIST



Albrecht, Masha — Teacher, Berkeley HS, Berkeley USD Projects and Group Tasks for Diverse Geometry Classrooms

The presenters will share projects and group tasks they have used at all levels of geometry. The handout will include over a dozen classroom ready projects, group worthy tasks, and rubrics. The presenters will also share samples of student work. Participants will choose which projects and tasks to focus on during the session.

8-12 | WKS | 507 | Saturday, 3:30 - 5:00 | Asilomar | Acacia | BT

Co-presenter: *Kate Moody — Teacher, Realm Charter School*

An, Shuhua — Professor, CSU Long Beach Building Mathematics Specialist Programs

The session will provide an opportunity for institutions to share the MIAA/MILS program plans. Participants will engage in an active discussion on the alignment of the MIAA/MILS standards and the program plans/standard course outlines. Some challenge issues on building the MIAA/MILS programs will be discussed. Constructive feedback will be provided to each program plan.

Tchr Ed | INT | 309 | Saturday, 11:00 - 12:00 | Asilomar | Marlin | BT

Co-presenter: *Nadine Bezuk — Professor, UC San Diego*

Anderson, Jody — Kindergarten Teacher, Stoneridge ES, Roseville City SD

Assessment + Goal Setting = Achievement at Number CAMPP

See how to turn your assessment data into student goals and boost student achievement using math games matched to the California State Standards. Number CAMPP is an acronym for Counting, Algebra, Measurement, Probability and Problem Solving. Create a number CAMPP board in your classroom, assess efficiently and effectively and motivate your students. Learn how to move your students towards independence and how to make choices to achieve their math goals.

PK-2 | INT | 146 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 27 | BT

Arendt, Gene — Educational Technology Consultant, Texas Instruments

Common Core Tips: Navigating the Teacher Tightrope with Technology

Simple strategies build student self-efficacy and foundational understanding. Apply proactive interventions to teach math concepts, choose appropriate tools, technology, and communication.

8-12 | INT | 433 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 4

Arth, Karen — Regional Coordinator, CSU Fresno Algebra 2 and Common Core State Standards (CCSS) for Mathematical Practice: Where's the STEM?

It's all connected in the real world, let's see how it can be connected in our classroom. Experience Algebra 2 in the context of solving a real life application, designing a "County Fair Game Tank." In this hands-on session, participants will work collaboratively to design a tank to meet specific criteria. Their final task will be to summarize their findings in an engineering type report. (CCSS concepts: Algebra, Functions, Modeling, and Statistics and Probability.)

8-12 | WKS | 510 | Saturday, 3:30 - 5:00 | Asilomar | Curlew | BT | \$

Atkin, Kyle — Teacher Statistics 101 using Sports and Technology

Statistics is a part of the new Common Core Standards. Come and see how basic statistics concepts like inference and bivariate data analysis can be taught using sports and the TI-Nspire graphing handheld.

8-12 | WKS | 343 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 24 | BT

Barbara, Manny — Vice President, Silicon Valley Education Foundation

Preparing Students for Algebra in the 8th Grade

Success in algebra at grade eight is a key performance metric that predicts future success in meeting the A-G requirements. Learn how Silicon Valley Education Foundation partners with school districts to prepare students for Algebra through, 1) Equitable access through common placement criteria; 2) Increased instructional time through our Stepping Up to Algebra program; and 3) use of technology such as Khan Academy. We'll share lessons learned and how you too can prepare more students for Algebra.

6-12 | PRS | 347 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 28 | BT

Co-presenter: *Amy Wong — Director, STEM Integration, Silicon Valley Education Foundation*

Beeman, Bix — Teacher, Buhach Colony HS, Merced Union HSD A Breathtakingly Gorgeous 107 Acres? How'd They Get That?

How can we measure the area of Asilomar Center grounds and State beach? From simple area concepts, to basic area formulas, to more advanced area algorithms, we can arrive at the stated value of 107 acres in more than one way. Our activity will connect maps to coordinate geometry, triangulation, and scale factors. Graphing calculators will be used to implement the Surveyor's Area Formula, in order to complete this simulation of solving a real-world problem.

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

Belcher, Jenny — Math Teachers Press, Inc. Making Sense of Fractions and Operations with Fractions

Activities based on the three stages of learning: concrete, pictorial, and abstract. Will show how to use manipulatives to teach concept of fraction, equivalent fractions, and fraction operations for understanding.

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

ASK ME!

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

Bellman, Allan — Lecturer, UC Davis**You've Checked for Understanding—Now What!?**

Using examples from Algebra, we'll practice creating good questions that test for understanding, see how to quickly collect and aggregate work from all in the room, and discuss instructional options using the information from the check. The ideas of doing more or less example problems, continuing with practice problems, moving to groups/pairs, providing differentiation will all be discussed. Come discuss what it means to check for understanding and the options available when you do.

8-12 | INT | 357 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 39 | BT

Bennett, John — Math Teacher, Wornick Jewish Day School**Brain Games!**

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

6-12 | PRS | 454 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 36 | BT | \$

Berglund, Jorgen — Associate Professor, CSU Chico**Mathematics CSET's Impact on Subject Matter Competence**

Faced with a shortage of secondary math teachers, the CCTC implemented a three part subject matter competency exam (CSET) for mathematics. They also created a Foundational Level Credential whose subject matter competence is established by passing the first two parts of this exam. In this session we will look at data pertaining to the course work completed by people passing these CSET exams, and discuss the implications of the data. Is there a more responsible way of credentialing mathematics teachers?

Tchr Ed | INT | 209 | Saturday, 9:30 - 10:30 | Asilomar | Marlin

Exploring Transformations with Dynamic Geometry

Dynamic geometry software creates opportunities for students to explore, conjecture, and prove results. Become a student and explore transformational geometry in this interactive workshop. Feel the thrill of making discoveries and the satisfaction of finding connections and proving results. Transformational geometry is in the Common Core Standards for grade eight and high school geometry. It will be useful, but not required, for participants to have some experience with Geometer's Sketchpad.

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

Biehl, Chuck — Math Teacher, The Charter School of Wilmington**Steiner Networks: A "Radical" Experience**

Networks of cities that form special triangles, rectangles, and other polygons provide students with practice and/or instruction in geometric construction, manipulating radical expressions, properties of special right triangles, the Laws of Sines and Cosines, and general applications of their algebra skills. A short primer in the graph theory topic of minimum cost spanning trees is the foundation for this presentation.

8-12 | INT | 256 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 38 | BT

Bintz, William — Professor, Kent State Univ., Ohio**Rigor and the Common Core**

What does rigorous math instruction look like when teaching to the Common Core State Standards? How does rigorous instruction implement the mathematical practices as well as rich mathematical tasks and content? See examples of rigorous instruction that bring these attributes together.

GI | INT | 248 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 29

Co-presenter: Sara Moore — Director of Mathematics & Science, ETA/Cuisenaire

Bjorkman, Thomas — Math Program Specialist, Pacent Learning Solutions**Math Intervention Class for Middle Schools**

Learn an effective approach to developing an aligned curriculum for a daily math intervention hour as well as effective instructional strategies that build confidence and develop necessary skills for students at risk.

6-8 | PRS | 105 | Saturday, 8:00 - 9:00 | Asilomar | Evergreen | \$

Blachman, Nancy — Enrichment Math Teacher, Lincoln ES**Enjoyable Ways to Learn Math Facts via Magic, Puzzles, and Activities**

Foster delight, develop children's basic math skills, and engage them in higher-level thinking with magic tricks, puzzles, games, and activities. I'll start by teaching how to perform and amaze students with magic tricks and Mathemagics (magic based on math). Then I'll go on to share math puzzles and activities that stimulate the interest and curiosity of primary-school children, as well as teachers and some parents.

3-5 | INT | 333 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 4 | BT

Bloomsburgh, Peter — Math Teacher, Berkeley HS, Berkeley USD**An Intervention Program to Help Struggling Algebra Students**

This year our school has implemented an intervention program to help struggling Algebra students, and we have definitely had some successes. Technology has been an important part of our efforts. In this presentation, we will describe the approach we have followed and the specific results we have achieved. We will also present the research we have done about approaches used in other schools and how our efforts relate to the new national Common Core Standards.

6-12 | PRS | 346 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 27

Bohlin, Carol Fry — Professor, CSU Fresno**Building Powerful Foundational-Level Mathematics Programs**

For the last eight years, the only path to earning a Foundational-Level Mathematics (FLM) Credential was via the CSET. Institutions are now developing Subject Matter Programs for the FLM credential and submitting them to the California Commission on Teacher Credentialing for approval. This interactive session will provide an update on these programs and provide participants with the opportunity to examine, discuss, and share plans, course syllabi, and experiences. Come join the conversation!

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

Co-presenter: Eric Hsu — Professor, UC San Francisco

CELL PHONES AND PAGERS

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

Boswell, Laurie — Math Teacher, The Riverside School
Big Numbers: Problems to Interest and Engage Students

Ken Griffey's debt payment in pennies, the \$700 billion bailout, and the \$1.27 trillion combined wealth of Forbes 400 richest. These and other real contexts provide an opportunity to engage students in meaningful exploration of big numbers. Presented problems will integrate decimal operations, place value, metric measures, and scientific notation.

6-8 | INT | 137 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 10 | BT

Brady, Victoria — Staff Educator, The Exploratorium
Solar Calendar Geometry: It's All About Angles!

Explore the geometry of the sky as we model orbital planes and the relative position of the Sun and Moon through the seasons. We will discuss the 18.6 year "lunar standstill," and how ancient observatories recorded this and other celestial patterns. We will look at Great Circles as we plot altitude and azimuth, and design our own "ancient observatory." This workshop is based on observations and activities done at the Cesar Chavez Memorial Solar Calendar in Berkeley, California.

8-12 | WKS | 547 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 28 | BT

Brice, Anna Wan — Graduate Teaching Assistant, Auburn Univ.
Using Data from NOAA in a Technology Based Lesson

This is an interactive session where teachers will be more familiar with the NOAA web site and use real science data in the math classroom. Microsoft Excel will be the main program to work with in making graphs, tables, and charts. Time will be given to develop lessons for your classroom.

6-12 | INT | 241 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 21Lab | BT

Co-presenter: Margaret Ku — Teacher, Dorsey HS

From Web Sites to Programs, Technology in High School Geometry

Overview of possible programs to use in high school geometry course. Minimum requirements are projector and a laptop or computer—computer lab not necessary. Engage, inspire, and encourage learning with technology in the classroom. Tips for other ways to infuse technology in the classroom. Sample lessons made with free software and commercial software will all be shared. Time will also be given to swap ideas—I can't claim to know all.

8-12 | PRS | 541 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 21Lab | BT | \$

Co-presenter: Margaret Ku — Teacher, Dorsey HS

Brooking, Elizabeth — Teacher, Wilson ES

Teaching Earth Science through Math (grades 3-8)

Starting with a fundamental understanding of Earth science, we will explore grade-specific, standards-based, integrated math and science lessons, demonstrations, and experiments.

3-8 | INT | 316 | Saturday, 11:00 - 12:00 | Asilomar | Nautilus East | BT

Brown, Ron — Songwriter/Consultant, Intelli-Tunes
Rock Your Math Class

Teach number sense, place value, skip counting, greater than less than, fractions, multiplication, doubles, math facts, money, and much much more with the power of songs, games, and activities. Join us for a fast-paced session with easy-to-use ideas that will truly make a difference in your teaching. Handouts! Prizes! Fun!

PK-2 | PRS | 102 | Saturday, 8:00 - 9:00 | Asilomar | Kiln | BT | \$

Co-presenter: Nancy Brown — Consultant, Intelli-Tunes

Brown Brooks, Gloria — Teacher, CMC, NCTM, NCSM, WME, TODOS

From Flatland to Zometown: A Journey into Other Dimensions

We will start off with a square that is "flat" and create data along the way to creating a three-dimensional object. This session can be adapted to grades 3-10 and other materials can be substituted to create models for classroom usage.

6-8 | MITI | 230 | Saturday, 9:30 - 10:30 | PG Middle School, Library | BT

Burson, Renae — Teacher, Lassen View ES

Reasoning with Rekenreks

Create arithmetic racks using inexpensive, readily available materials. Students use the rekenrek to promote an understanding of fives, tens, number decomposition, and strategies for addition and subtraction.

PK-2 | W | 130 | Saturday, 8:00 - 9:00 | PG Middle School, Library

Carlson, Veronica — Math Teacher, Moon Valley HS, Glendale Union HSD

"Nspiring" the Algebra 1 Classroom

Participants will learn how to use the TI-Nspire handheld and TI-Nspire Navigator System along with Math Nspired Resource Center lessons to improve the understanding of algebra concepts. Participants will leave with ready-to-use and ready-to-access lessons to incorporate into the Algebra 1 classroom.

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

Co-presenter: Kim Thomas — Math Teacher, Moon Valley HS

Carlyle, Ann — Instructor, UC Santa Barbara

Expanding Math Talk With Our Youngest Students (Pre K)

Young children are capable of much more mathematical thinking than we usually see in Pre-K classrooms. We can encourage math talk by presenting engaging activities and problems, encouraging children's conversations, and using playful materials that draw them into mathematical discourse. Expand number sense and geometry concepts in your preschool.

PK-2 | PRS | 307 | Saturday, 11:00 - 12:00 | Asilomar | Acacia | BT

Carranza, Shelley — Math Teacher, Los Altos HS

Making Math Visual with Geogebra

Help students make sense of abstract concepts by easily creating visual representations using the free mathematics software Geogebra. The presentation will include an introduction to the software as well as sample lesson plans and student work.

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

Co-presenter: Michael Richardson — Math Teacher

Carroll, Cathy — Senior Project Director, WestEd

Making Middle School Mathematics Accessible to English Learners

Supporting English learners in mathematics class requires teaching both the language and the content of mathematics. Which easily adaptable tools can be used to support students' understanding of mathematics and mathematical language? How do we encourage students to engage in mathematical discourse? In this session, we will examine strategies to promote language development and differentiate instruction for English learners and students with diverse learning needs.

6-8 | INT | 405 | Saturday, 1:30 - 3:00 | Asilomar | Evergreen | BT

Casey, Christopher — Curriculum Writer
Teaching Measures of Central Tendency in the Sixth-Grade Classroom

Common Core Standards in sixth grade statistics and probability will be covered. Find out how to present line plots, stem and leaf plots, histograms, and box and whisker graphs in a way that is meaningful to students. Students will understand measures of central tendency and variability in a real-world context.

6-8 | INT | 536 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 7 | BT

Cheng, Ivan — Associate Professor, UCS, Northridge
Thinking “Inside the Box” to Help All Students Learn Algebra

Are your students confused by all the different topics covered in Algebra? Help them really understand algebra by organizing their thinking using our system of “boxes.” Come experience a set of activities designed for struggling students by a team of teachers in Los Angeles. Take home lots of ready-to-use handouts that build confidence as well as promote deep conceptual understanding. Best of all, these Common Core aligned activities are guaranteed to work!

8-12 | INT | 315 | Saturday, 11:00 - 12:00 | Asilomar | Triton | BT

Co-presenters: Joe and Sandha Masia — Teachers, Maclay and San Fernando MS

Childs, Leigh — Consultant
Engaging, Effective Strategies = Numerically Nimble Students

“Work smarter, not harder” to improve numeric competence. These strategies promote greater sense-making and participation—ideal for intervention success and “family math” efforts. A ready-for-immediate-use handout includes engaging activities to enhance mathematical reasoning and improve students’ performance.

3-5 | INT | 402 | Saturday, 1:30 - 3:00 | Asilomar | Kiln | BT

Choate, Laura — Teacher, Fallbrook Union Elem. SD
Build Number Sense with Effective Games and Practices

Be more efficient and selective with time devoted to number. A ready-to-use handout of highly engaging, repeatable activities and instructional strategies will help you enhance number sense and build confidence in your students.

PK-2 | INT | 236 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 7 | BT

Clark, Heather — Teacher, Verdi ES, Washoe County SD
Looking at Long Division Through New Eyes

Demystify long division for your students by exploring a variety of strategies and alternative algorithms for solving multi-digit division problems. We will make meaning of division strategies that draw on students’ prior knowledge and skills with place value. See how contextual situations might impact students’ understanding of division.

3-5 | INT | 437 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 10

Clements, Maureen — Mathematics Consultant, Tehama County Department of Education

Compelling Literature to Support Math Content

Teachers will have an opportunity to explore a wide array of children’s literature that will help them bring enthusiasm and real-world connections to their mathematics instruction. They will see how children’s books can be a springboard to motivate students’ mathematical reasoning and problem-solving skills. We will also demonstrate how these activities will provide a foundation to support the Standards for Mathematical Practices embedded in the new Common Core Standards.

PK-2 | PRS | 217 | Saturday, 9:30 - 10:30 | Asilomar | Nautilus West

Co-presenter: Laurie Marcellus — Mathematics Consultant, Tehama County Department of Education

Coates, Grace

Family Engineering: A Natural Intersection for Mathematics and Science

Come prepared to build, think, and ponder aloud as we explore complex ideas in science and mathematics through engineering. Learn about how you can bring the excitement of Family Engineering (FE) to your community, classroom, or after school program. FE is an NSF-funded collaboration between Michigan Tech, the American Society for Engineering Education, and the Foundation for Family Science. We will provide tools and resources to get you, your students, and their families ready to have fun with engineering.

3-5 | WKS | 415 | Saturday, 1:30 - 3:00 | Asilomar | Triton

Co-presenter: Aaron Coates — Family Engineering Associate

Cook, Marcy — Math Consultant

Mathematical Problem Solving: The Thinking Sport

Create a live math classroom providing mathematical challenges on a daily basis. Speak the language of mathematics to ensure that communication and cooperation are among your goals. Provoke thought and expect students to defend their thinking. Develop a climate of “healthy frustrations” where students keep their minds in motion with starters, stumpers and independent task. Involve students in higher level thinking throughout the math period.

3-8 | INT | 301 | Saturday, 11:00 - 12:00 | Asilomar | Fred Farr Forum

Think and Touch: Hands-on Activities for All

Create a live math classroom where young children are provoked to think and communicate their thinking with simple tools from crayons to tiles. Engage students in a variety of activities where probing, exploring, experimenting, and persevering are vital behaviors. Provide students with problems where there is more than one solution and problems that might not have a solution. Set high expectations for students to deal with strategic problem solving and reasoning at their appropriate level.

PK-2 | INT | 153 | Saturday, 8:00 - 9:00 | PG Middle School, Auditorium | 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.

Costa, Elmano — Professor, CSU Stanislaus

Core Practice for English Learners Is Comprehensible Input

"Most inequities arise in ... deficiencies in the opportunity that a student has to learn (NCTM)." This workshop models how to make instruction for EL students comprehensible so that all meet the standards. It begins by reviewing the best practices for teaching English learners and then presents a lesson in Portuguese to model how to make content comprehensible for all students.

PK-5 | INT | 535 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 6 | BT

Cummins, Jerry — E² PLC Learning

The TI-Nspire CS Graphing Calculator to Engage STEM Students

The new TI-Nspire CS provides dynamic opportunities for student to engage in meaningful math problems in algebra and geometry. Participants will have a hands-on experience on how to use graphing calculators to create and teach for greater depth and understanding, an essential aspect of the vision of the CCSS Mathematical Practices. Resource materials and digital files will be shared.

6-12 | INT | 155 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 37 | \$

Dagler, Clayton — HS Math Teacher, Luther Burbank HS, Sacramento City USD

Using Flow Charts in the Math Classroom

This session will show teachers how to use flow charts in the classroom to help students discover mathematics and review key concepts. The main content in the session is Algebra, but the ideas learned can be extended to most topics in mathematics.

6-12 | PRS | 231 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 1 | BT

Dallas, Heather — UC Los Angeles

The Common Core Standards Claim to be Mathematically Coherent

How do the Common Core Standards build one to the next, how do the practice and content standards relate, and what does that standard mean? This session will take a close look at three key learning trajectories within the Common Core Standards (one each at the elementary, middle and high school levels). We will then look at an overlay of the practice standards on those trajectories. Finally, we look at tasks that illustrate standards and/or clusters within the trajectories.

Tchr Ed | PRS | 509 | Saturday, 3:30 - 5:00 | Asilomar | Marlin

Damm, Suzanne — Lecturer, UC Santa Cruz

Common Core...What Can I Do Today?

Implementing the "Mathematical Practices" using your current standards can prepare students for the changes to come in demonstrating proficiency of Common Core Standards in 2014-15. Come explore classroom practices that encourage the type of problem solving and communication called for in the "Mathematical Practices." Leave with sample activities and resources you can implement immediately. Help your students become more like mathematicians and less like implementers of procedures.

3-8 | INT | 237 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 10

DeCarli, Elizabeth — Managing Development Editor, Key Curriculum Press

Make it Move: Modeling Middle School Math with Technology

California's Common Core Standards ask students to "model with mathematics" and "use appropriate tools strategically." What does that look like in middle school? When students work with dynamic models and representations, they are encouraged to ask "what if" questions and make and test their own conjectures about shapes and data. We'll use Sketchpad and TinkerPlots to explore mathematics dynamically, focusing on Geometry and Statistics and Probability standards from grades six and seven.

6-8 | PRS | 341 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 21Lab | BT | \$

DeLaby, David — Instructor, Cal State Dominguez Hills

Linear Systems: A Coherent Approach Accessible to All

I will present a coherent approach using multiple representations that is meaningful and accessible to all students so they can understand and remember the various methods for solving systems of linear equations. I will utilize multiple representation and the connections between those representations to build deeper understanding of linear systems.

6-12 | PRS | 516 | Saturday, 3:30 - 5:00 | Asilomar | Nautilus East | BT

Dirksen, Jennifer — Teacher, San Mateo HS, San Mateo Union HSD

ProofBlocks: A Visual Approach to Logic and Proof

Come learn a new visual format for introducing geometric proof, that uses manipulatives to scaffold the development of logical reasoning. Participants will get the opportunity to try out the ProofBlock format themselves on whiteboards, and leave with the resources and worksheets necessary to implement it in their own classrooms.

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

Co-presenter: Jinna Hwang — Teacher, Gateway HS

Dorf, Carol — Teacher, Berkeley HS, Berkeley USD

Talking Back to Mathematics: Poetry in the Mathematics Classroom

Poetry enriches the mathematics classroom by allowing students to connect their emotional lives to the mathematics they are learning. Often when we learn mathematics, there is a tendency to view ourselves as passive recipients of the mathematical language and content. In this class we will read poems where poets employ mathematical language as part of their larger vocabularies for understanding how the world's structure. Teacher participants will also learn writing exercises to increase their students understanding and enjoyment of mathematics.

6-12 | WKS | 546 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 27

Douglas, Lew — Math Coach, The Lawrence Hall of Science

Connecting Math and Music

Rhythm, pitch, volume and notation are key musical ideas that have strong connections to math and science, connections that are often underutilized. Students enjoy learning about music and there is much evidence that supports the positive effects of music on one's ability to do math. An experienced math teacher and an accomplished fiddler will highlight these connections for you and provide resources for further study.

GI | PRS | 540 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 13

Co-presenter: Tony Phillips — Lawyer and Musician, The Red Hot Chachkas

Eisenberg, Gary — Second Grade Teacher, Eugene Padan ES, Vacaville USD

The Three Secrets

Participants will leave this session with a good understanding of how to develop a developmentally appropriate hands on math manipulative program in their classrooms. We will explore the "Three Secrets" which will enable our students to get math facts and math skills into long term memory. These secrets come to us from "Math Their Way", "Box it or Bag it Mathematics", "Bridges in Mathematics," and the work of Susan Kovalik.

PK-2 | INT | 108 | Saturday, 8:00 - 9:00 | Asilomar | Toyon | BT

Erickson, Sheldon — Teacher, Fresno USD

Movie Math Mania: Engaging All Students to Learn with Fun

Movies provide real-world problems that engage all students in understanding and applying the math standards. The inherent fun of movies captivates the students to learn and they solve problems inherent in the movie's plot. Get a source of movies, class-ready activities, and find out how get all students learning by making learning fun.

6-8 | PRS | 215 | Saturday, 9:30 - 10:30 | Asilomar | Triton | BT

Erlandson Block, Staci — Coordinator II, Ventura COE

Creating an Environment of High Student Engagement

Come explore Project GLAD and Kagan Cooperative Learning strategies that promote student engagement, language acquisition, academic vocabulary, higher order thinking and math proficiency. Discover how to create robust lessons with research-based strategies that will help your English learners improve their academic vocabulary and language proficiency. Hands on experiences will empower teachers and students to increase math proficiency. Resources provided!

PK-5 | INT | 504 | Saturday, 3:30 - 5:00 | Asilomar | Oak Shelter | BT

Farrand, Scott — Professor, CSU Sacramento

Polynomial Surprises

Because polynomials are a standard area of study in algebra, it is easy to forget how fascinating they can be. Let's shake that up! Come to be challenged by polynomials, to learn a parlor trick, and to be intrigued by the beauty of their graphs and what they can reveal about the integers.

8-C | INT | 353 | Saturday, 11:00 - 12:00 | PG Middle School, Auditorium | BT

Co-presenter: Rick West

Fenton, Michael — Teacher, Fresno Christian Schools

Nspiring Navigations in Mathematics

We'll take a hands-on look at the TI-Nspire Navigator System, a completely wireless classroom learning system designed to engage students and maximize the already-powerful TI-Nspire handhelds. Want instant assessment, planned ahead of time or measured on the fly? Want increased student engagement and the ability to transfer documents and collect, grade, save, and record student work in a TRULY wireless environment? Once you've seen the power of real-time feedback, you'll never want to go back.

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

Fiedler, Joseph — Professor, CSU Bakersfield

Competencies in Math Expected of Entering College Students

Every decade or two the UC, CSU and CCC come together to issue an updated version of the Statement on Competencies in Mathematics Expected of Entering College Students. This new version, issued in Fall of 2010 addresses the changing requirements and expectations. Remarkably, the new document is better aligned with the Common Core Standards than the California Standards they have replaced. This statement has been designated as the standard for approving Mathematics courses for the UC Area C.

8-C | PRS | 308 | Saturday, 11:00 - 12:00 | Asilomar | Toyon | BT

Foster, David — Executive Director

Examples of Assessments and Curriculum for Common Core State Standards

How will the Common Core State Standards (CCSS) affect the teaching and learning of mathematics? How might the CCSS influence summative/formative assessments? How are the standards being addressed/embraced and what innovations in curriculum and assessments are occurring in other states? How will curriculum, teaching, and learning change? This session will address these questions and share work and products from several states that are embracing the new core standards.

GI | PRS | 453 | Saturday, 1:30 - 3:00 | PG Middle School, Auditorium | BT

Freathy, Mark — Math Curriculum Specialist, Elk Grove USD

Building the Foundation for Algebra Using Factors and Terms

In this session teachers will develop an understanding of factors and terms as the foundation for algebraic thinking. These two concepts will be developed and applied to teach order of operations, solving equations, and rational numbers. We will also explore the importance of teaching properties, place value, and decomposition in context. Teachers will leave this session with ideas for innovative instruction, worksheets, and lessons that can be used on Monday morning. These strategies have been effective for grade levels fourth through beginning Algebra.

6-12 | PRS | 444 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 25 | BT

Co-presenter: Brandon Matsumoto — Mathematics, EGUSD

Gale, Mardi — Senior Research Associate, WestEd

Essential Elements for Intervention: Not Business as Usual

Learn about essential elements for algebraic intervention. Examine a conceptually based program that is standards-aligned; supports struggling students through modules targeting common barriers to algebraic success. Provides teacher support for each lesson. Flexible implementation for grade levels and schedules. Common Core Standards aligned supports ELs and RTI. Modules include: number theory, signed number ops, exponents, rational numbers, equations, patterns, coordinate plane, ratio and proportion.

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

NAME BADGES!

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

Giganti, Paul — Director, Math Festival, California Mathematics Council

Fun with Binary Numbers: How 1s and 0s Can Teach Us a Lot About All Numbers and Base 10

Binary, also called Base 2, is not only the number system that makes computers possible, but also offers students insights into how all number systems, including Base 10, work. This is NOT a lecture! This will be a hands-on, discovery-based, highly interactive session: including a live demonstration of how Binary numbers allow our modern computers to work. Come join us and have a lot of fun with 1s and 0s.

3-8 | INT | 553 | Saturday, 3:30 - 5:00 | PG Middle School, Auditorium | BT

Gillespie, Janet — Author/Title 1 Math Teacher, Portland Public Schools (retired)

Make Every Day Count with Games for Number Concepts

Explore use of visual models in calendar math and related partner games to increase access to critical number concepts for all children. Help children reason and reflect on number relationships, master facts, and practice academic math language by providing math to see and talk about. Materials provided for instant use.

PK-2 | WKS | 434 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 5 | BT | \$

Gojak, Linda — President-elect, National Council of Teachers of Mathematics

Connecting Mathematical Practice to Content Using Rich Tasks

The eight Standards for Mathematical Practice in the Common Core “describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.” What does this look like in the 3-5 classrooms? Let’s explore a variety of rich tasks that model how we can develop both mathematics content and mathematical practice in order to ensure deep learning for all students.

3-5 | WKS | 501 | Saturday, 3:30 - 5:00 | Asilomar | Fred Farr Forum | BT

Goldenstein, Donna — Teacher, Lorin Eden ES Mathematics and the Arts: Thinking and Reasoning Through Art

This session will focus on math/art activities that help assess mathematical thinking and reasoning as well as help students access the core curriculum. Participants will be introduced to a variety of art projects that deepen the mathematical concepts in an intermediate grade classroom. Participants will see student work as well as a variety of journal prompts that integrate literature, mathematics and the arts.

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

Gomez, Emiliano — MDTP Site Director, UC Berkeley Number Sense, Rational Expressions via Resistors in Circuits

Using the simple laws governing the equivalent resistance of circuits with resistors in series and in parallel, we will find the resistance of different circuits and use the results to build number sense, particularly around rational expressions.

6-12 | INT | 208 | Saturday, 9:30 - 10:30 | Asilomar | Toyon

Gooch, Dean — Mathematics Instructor, Santa Rosa Junior College

Discovering and Processing Numbers Found in the Wild

One cannot help but notice that numbers are everywhere. This talk will focus on the numbers that we encounter every day. We will show what is suggested by some numbers and their prime factorizations. Factoring “tricks” and their justifications will be demonstrated. We will also see an example of the Sieve of Eratosthenes.

8-C | PRS | 505 | Saturday, 3:30 - 5:00 | Asilomar | Evergreen | BT

Good, Leslie — Teacher, Ellerhorst ES, W. Contra Costa USD Explore the Beauty of Math Through Art

Use tried and true activities to integrate math and art in your classroom. Art projects to help students visualize fractions, geometry, multiplication, exponents, and symmetry will be shared. Hands-on projects and a detailed handout will be provided.

3-5 | WKS | 133 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 4

Goularte, Renee — Elementary Teacher (retired) GeomARTry!

This presentation includes an overview of the elements of design and their relationship to geometry concepts, application, and vocabulary. It involves participants in problem-solving art activities which integrate art and geometry and which use common classroom materials. It also presents ideas for extending the activities into other mathematics strands. Samples of student artwork will be shown and alignment to the Common Core State Standards for Mathematics will be addressed.

PK-5 | INT | 404 | Saturday, 1:30 - 3:00 | Asilomar | Oak Shelter | BT |

Co-presenter: Sharon Bloomingcamp — Retired Elementary Teacher,

Greco, Jim — Education Administrator, California Department of Education

STEM at the California Department of Education

Science, technology, engineering, and mathematics (STEM) are areas of high occupational demand in California. Getting students interested in these areas needs to be addressed early in their educational experience. This session provides information on the STEM programs, projects, initiatives, and resources with an emphasis on mathematics available through the California Department of Education.

GI | PRS | 201 | Saturday, 9:30 - 10:30 | Asilomar | Fred Farr Forum | BT

Co-presenter: Lisa Fassett — Education Programs Consultant, California Department of Education

Algebra Dilemma: California Common Core State Standards on Content, Instruction, Assessment

Explore pathways to Algebra/options for California students in grade eight and above. Discussions will include the rigorous content of Grade 8 Common Core and Grade 8 Algebra 1 Standards, resources/strategies to ensure all students are prepared for, have access to, and are encouraged to participate/succeed in challenging math courses. We will provide California Department of Education updates regarding alignment of curriculum/instructional materials to the California Common Core State Standards, implementation timelines and assessments.

6-12 | INT | 101 | Saturday, 8:00 - 9:00 | Asilomar | Fred Farr Forum | BT

Co-presenter: Stacey Christopher — Education Programs Consultant, California Department of Education

CELL PHONES AND PAGERS

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

Grzegorzcyk, Ivona — Professor of Mathematics, CSU Channel Islands**Making Algebra Fun with Games**

We will present educational games addressing needs for various learning styles that can be used as early as middle school. We advocate the use of games and involving computer-based activities as student learning choices for developing independent thinking skills and creating Common Core Practices for Classroom Communities. The activities were assessed in school and college classrooms, and in workshops for teachers. Data shows improvement of students' understanding of the content matter, and an increased positive attitude toward mathematics across the board.

6-12 | INT | 131 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 1

Guzik, Randy — Math Teacher, Pacifica HS**What is Calculus All About?**

What are the main ideas of calculus, and how does it fit into the overall K-12 math curriculum? In general nontechnical terms, we will demystify this amazing subject and see its place in the beauty and simplicity of mathematics. Great for any K-12 teacher of mathematics who has never taken calculus.

GI | PRS | 144 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 25 | BT

Hakansson, Susie — Executive Director, UC Los Angeles**Develop and Understand Proportional Reasoning**

Reasoning suggests that we use common sense, good judgment, and a thoughtful approach to problem solving. This session will provide an overview to fractions and proportional reasoning and will delve deeply into the two basic types of proportional reasoning through problem solving. Also included will be ways to support high cognitive level mathematics for English learners. Be prepared to do some math and reasoning as aligned with the Standards for Mathematical Practice!

3-8 | WKS | 431 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 1 | BT

Hamo, Matthieu — Teacher, Glenoaks ES, Glendale USD**All Students Can Be Problem Solvers!**

Help all your students think critically and reason mathematically through problem solving. This session offers standards-based, classroom-tested strategies and activities that can fit into any curriculum and assist students at every level of mathematical ability. Handouts will be available to help you get started right away.

3-8 | INT | 257 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 39 | BT

Herrington, Diana — Teacher, Clovis HS**Don't Forget the M in STEM**

Come join the fun with engaging science and engineering activities. You will be introduced to a selection of activities and we will look at the mathematics that can be showcased in each one of them. The activities are ready for you to create lessons with them.

3-5 | INT | 107 | Saturday, 8:00 - 9:00 | Asilomar | Acacia
6-12 | INT | 207 | Saturday, 9:30 - 10:30 | Asilomar | Acacia

Hogan, Marie — Teacher, Traweek MS, Covina Valley SD
Get Your Students Hooked on Noticing and Wondering

Learn how to implement a problem-solving technique that helps all students engage comfortably so that they are able to communicate their mathematical reasoning. It helps students who would race to finish the problem, slow down, while it helps the students who would give up immediately have something that hooks them in. Participants will leave with resources that keep students motivated, engaged, and communicating at higher levels of thinking.

6-8 | PRS | 246 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 27 | BT

Co-presenter: Suzanne Alejandre — Director of Professional Dev., The Math Forum

Holm, Calisa — Teacher, Pacific Union ES**Easy Activities to Boost English Learners' Math Vocabulary**

Language confidence improves math ability at every grade level. We will explore effective activities that maximize language acquisition skills while learning math. These activities include sentence frames, group work, problems of the day, word charts, and more. You will leave this workshop with activities for next Monday's class.

3-8 | INT | 204 | Saturday, 9:30 - 10:30 | Asilomar | Oak Shelter | BT

Co-presenter: Stuart Moskowitz — Lecturer, CSU Humboldt

Holman, Lynda — K-5 Math Coach, Marietta City Schools**Shapes and More Shapes**

Primary students need to look at the world around them as they recognize and compare shapes. Join in a hands-on session using real world materials, manipulatives, and Internet sites that will provide lessons to build problem solving and communication skills.

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

Jacobs, Harold — Teacher, Grant HS, Los Angeles USD**Mathematical Snapshots of 2011**

How to pull your students into your lessons by means of surprising and timely examples that everyone can enjoy—a new talk in a continuing series that began at Asilomar in 1971. It will present ideas that can be used to motivate the review of old concepts as well as the introduction of new ones. Participants will receive a CD of the talk so that they can prepare materials for use in their own classroom.

8-C | PRS | 302 | Saturday, 11:00 - 12:00 | Asilomar | Kiln | BT

Jalalpour, Kathleen — Teacher**Adopting Singapore Math: A Case Study**

Six years ago, Keys School in Palo Alto, California, adopted Singapore Math from K-6th Grade. In this session, the Keys School math chair and its math coach will present data, experiences, and film clips of math classes. We will summarize the overwhelming benefits of Singapore Math, the obstacles we had to overcome, and the best methods of implementation of this highly acclaimed math curriculum.

GI | PRS | 417 | Saturday, 1:30 - 3:00 | Asilomar | Nautilus West

Co-presenter: Corrinne Khoo-Lieu — Teacher

IMPORTANT NOTE

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

Keig, Carol — Teacher, Sonoma COE

I'm All Alone: Networking for Isolated Algebra Teachers

All alone and no one understands you? Teachers in departments of one, court/community schools, adult ed., home/hospital, or other isolated assignments come together to share your unique expertise and find a community of like-minded colleagues. We will explore achieving equity for our students, especially in Algebra I, CAHSEE prep, or GED courses. You are invited to bring along and share a tool, trick, model lesson, or reflection you've developed in your unusual assignment.

8-12 | INT | 216 | Saturday, 9:30 - 10:30 | Asilomar | Nautilus East

Kirley, Kim — Kindergarten Teacher, Park School, Mill Valley SD
Not Your Usual Literacy Connection!

Come and explore new ways to integrate math and literacy. We'll incorporate complex thinking and math tools as we work on meeting the new Common Core Standards. I'll share easy to find children's books and poems. You'll have fun and leave with a packet of materials.

PK-2 | INT | 517 | Saturday, 3:30 - 5:00 | Asilomar | Nautilus West | BT

Kreith, Kurt — Professor Emeritus

"The Cosmic Distance Ladder" Revisited

The first half of Terence Tao's 2010 Einstein Lecture required only basic geometry and proportional reasoning. As such it can provide an inspiring form of STEM-based enrichment to the standard high school curriculum. We will revisit Tao's presentation and the mathematics required to make it accessible to students. The possibility of extending it to "A Terrestrial Distance Ladder" will also be discussed.

8-C | PRS | 556 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 38

Kriegler, Shelley — President, Center for Math and Teaching
Transformational Geometry in Eighth Grade? WOW That's New!

Participants will experience rigid motion and dilation activities designed to help both teachers and students explore this dynamic approach to geometry. Through activities and discussion, participants will gain understanding of some of the Common Core Standards and Practices.

8-12 | INT | 202 | Saturday, 9:30 - 10:30 | Asilomar | Kiln | BT | \$

Using Linear Functions to Model Math Ideas

We will experience three ready-to-use lessons that develop concepts of linear functions. We will examine how the lessons align to the Common Core Standards and the Standards for Math Practice.

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

Kysh, Judith — Associate Professor, UC San Francisco
Group Tasks in Algebra that Support Math Discussion

Engaging students in mathematical discussion is one purpose of having students work in small groups, but it is difficult to find or create algebra problems that generate student discussion beyond the description of procedures. Sample tasks from Algebra 1 and 2 will be shared and discussed. Video clips will be used to show how students can be engaged in reasoning, discussion, and in the use of the academic language of algebra.

6-12 | PRS | 314 | Saturday, 11:00 - 12:00 | Asilomar | Surf & Sand | BT | \$

Lambertson, Lori — Staff Educator, The Exploratorium

Our Atmosphere By the Numbers: Scale Models, Ratios, Percent

Explore the scale and composition of our atmosphere in this integrated math/science workshop. We'll use the language of science and mathematics (scaling, ratios, graphing, and percent), to understand our planet's vital and changing atmosphere.

6-8 | WKS | 334 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 5 | BT

Lane, Deborah — Math Coach, Math Team Assistance

Let's Better Understand the Value of the Place

This session will address the developmental progression of understanding place value. Strategies to support language learners will be offered along with conversations around the big ideas appropriate at differing ages. Content of session will be based on research from Young Mathematicians at Work and First Steps in Number and Measurement.

3-8 | INT | 436 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 7

Larson, Ron — Professor of Mathematics, Penn State Univ., Erie
Real Math, Real Life: A New Course for High School Students

This talk describes a new type of course for high school students. The course does not require algebra. It covers business and consumer topics, taxation, probability, statistics, sports and fitness, and patterns in nature. In the talk, several examples will be given. Moreover, all of the material is available free at a Web site that requires no user name or password.

8-12 | W | 240 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 13

Lautze, Richard — Teacher, The Urban School of San Francisco
Mathematical Reasoning and Cooperative Problem Solving

Geometric lessons that engage students in exploring "how" rather than "remembering how." Lessons developed at the Urban School focus on circles, angles and the use of geoboards. Lessons emphasize that it is "okay to take risks and okay to be wrong" - thoughtful "wrong" answers often lead to novel solutions. Topics include group work, teaching in longer periods of 70 to 130 minutes and strategies for engaging students with varied ability in the same classroom. Bring your insights and questions.

6-12 | WKS | 408 | Saturday, 1:30 - 3:00 | Asilomar | Toyon | BT

Co-presenter: *Lucianna Lautze — Graduate Student, St. Mary's College*

Lawrence, Ann — Consultant

Strategies for Helping Pre-Algebra Students Develop Symbol Sense

As number sense is to success in arithmetic, so symbol sense is to success in algebra. But we tend to be much more comfortable with the former. Learn specific ways to scaffold the development of symbol sense with topics including meaning and uses of variables, how variables and properties behave and how the symbolic world relates to the real one.

6-8 | PRS | 331 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 1 | BT

Leinwand, Steven — Principal Research Analyst, American Institutes for Research

Converting Typical PD into Real Teacher Development Practices

This session will begin with what we know and what research now confirms: Typical professional development has very little impact on teacher knowledge, teacher behavior, or student achievement. We'll look at why and use this as the basis for an example-laden exploration of the potential practices of Effective Teacher Development that must be implemented in every school.

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

Lim, Brian — Professor, CSU Sacramento

Make Use of Structure in High School Mathematics Classes

The seventh Standard for Mathematical Practice in CCSS is to "Look for and make use of structure." We will look at examples of how basic structures/problems can be developed through the progressions to make more cognitively complex structures/problems.

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

Loew, Bob — Teacher, Foothill HS

National Board Certification

Is National Board Certification for you? What does it take to gain this certification, and why would you want to do it? A recently certified teacher will give you the inside view, including: who/what is the National Board for Professional Teaching Standards, what are the requirements, and what does it take to make it through the process. Also, what are the benefits of attaining this level of teaching qualification?

6-12 | PRS | 116 | Saturday, 8:00 - 9:00 | Asilomar | Nautilus East

Mackenzie, Christopher — Teacher, Paloma Valley HS, Perris Union High SD

An Appropriate Tool for Algebra is a Dynamic Spreadsheet!

Stimulate student interest with what-if questions, moving graphs, and engage ELL students for no charge. Linear systems, quadratics, and conics change shape with a single mouse motion; that's easy! Bring a jump drive.

8-12 | WKS | 534 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 5 | BT

Magner, Philip — Math Educator, Peter Johansen HS, Modesto City Schools

Real Time Data and Functions in the Math Classroom

NSpire CX CAS and Venier probes will collect data for linear (Fahrenheit vs. Celsius), Inverse Variation (Boyle's Law of Gases), and Quadratic (Terminal velocity) function. This will be a hands-on session of collecting data and using this technology to demonstrate these practical functions.

8-12 | WKS | 539 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 12 | BT

Nspire Teacher Software as a Presentation Tool in the Math and Science Classroom

The newest release of TI's Nspire Teacher software is a great presentation tool for the math classroom. The newest features allow the integration of video, tns file, color, and the integration of handhelds. This is a must if you have a Smartboard or a interactive tablet.

8-C | WKS | 445 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 26 | BT

Marti, Andres — Senior Development Editor, Key Curriculum Press

Sketches of the Common Core: Modeling Algebra and Function Standards

Using Sketchpad as a medium for communicating mathematical ideas and a facilitator of specific Common Core Practice and Content Standards, we'll build and explore a series of dynamic models designed to help teachers (and students) visualize the example problems described in the narratives for Algebra, Functions, and Modeling. We'll use Sketchpad to "analyze graphs of functions and solutions, visualize the results of varying assumptions, and compare predictions with data." Bring a laptop!

8-12 | PRS | 147 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 28 | BT | \$

Matsumoto, Brandon — Math Teacher, Elizabeth Pinkerton MS, Elk Grove USD

Using "0" and "1" to Connect Arithmetic to Algebra

In this session teachers will apply basic understanding of zero, one, and decomposition of number to enhance a balanced instructional approach. We will apply these instructional techniques in teaching integers, solving equations, order of operations, and fractions. Teachers will leave this session with ideas for innovative instruction, worksheets, and lessons that can be used on Monday morning. These strategies have been effective for grade levels four through beginning Algebra.

6-8 | PRS | 344 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 25 | BT

Co-presenter: Mark Freathy — Math Curriculum Specialist, EGUSD

Mayfield-Ingram, Karen — EQUALS Associate Director, Lawrence Hall of Science

Creating Equitable Lessons to Impact Students' Understanding

Participants will gain information about the factors that influence a student's mathematics identity. They will experience tasks that foster algebraic thinking and allow students from diverse backgrounds to demonstrate their mathematics understanding. The equity implications for designing instruction that supports the student expertise described in the California Common Core State Standards for Mathematical Practice will also be addressed.

GI | PRS | 247 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 28 | BT

Mazzola, Alison — Math Specialist, St. Matthew's Episcopal

Developing Algebraic Thinking in the Younger Grades

We often think of patterning as a skill for the youngest students but studying patterns can be challenging work for all elementary school students. This important skill is used in many professions. Learn new ways to challenge your students to observe, describe, extend and then generalize patterns. Develop their skills at proportional reasoning and challenge them to balance equations. Broaden your own toolbox for teaching algebraic thinking by learning new tools.

PK-5 | INT | 139 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 12 | BT

PROGRAM CHANGES

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

McLean, Peggy — Math Specialist, The Nueva School
Developing Mathematical Reasoning With Pattern Blocks

Invented over fifty years ago, pattern blocks can be used to teach any topic in the five major strands. Students enjoy building with the blocks while learning concepts such as number facts, multiplication facts, fraction concepts and operations, size of angles, different number systems, properties of geometric shapes, and area and perimeter concepts. Participants will discover these relationships in a totally hands-on experience. Extensive handout provided.

3-5 | WKS | 136 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 7 | BT

McNamara, Julie — Education Specialist, Math Solutions
Beyond Invert and Multiply: Make Sense of Fraction Computation

In school, many of us were told, "Yours is not to reason why, just invert and multiply!" In this session participants will learn how to make "reasoning why" the core of students' work with fractions. We will explore strategies for helping students use what they know about whole number computation to make sense of fraction computation. We will also make connections to the Practice and Content Standards from the Common Core State Standards.

3-8 | INT | 443 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 24 | BT

McPeak, Todd — Math Specialist, CK-12 Foundation
Higher Algebra Proficiency with Digital Learning Tools

We will discuss how free, digital, interactive learning tools can achieve high levels of proficiency in Algebra, featuring Leadership Public Schools' partnership with K-12 to create digital textbooks with embedded literacy supports to bridge the academic gap for a high school student population whose majority enters their classrooms reading at second to sixth grade levels. LPS student results, with the largest API gain in the state, will be shared.

8-12 | PRS | 210 | Saturday, 9:30 - 10:30 | Asilomar | Curlew | BT

Medeiros, Nadine — Math Teacher, Moreau Catholic HS
Teaching Geometry in the 21st Century

This session will feature teaching techniques, specifically inquiry or project based, cooperative learning, explorations, problem-solving, and teacher presentations. We will look at how using technology supports Geometry teaching in a balanced and interactive way. Some technology tools to explore are sketchpad and interactive web sites. Hands-on examples will include patty paper activities, sketchpad investigations, classroom Wiki projects and a Google site resource page.

8-12 | PRS | 245 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 26 | BT

Meyer, Dan — Doctoral Candidate, Stanford Univ.
Why Students Hate Word Problems

The fault lies not with our students but with the quality of the word problems themselves which have been restricted for too long by the paper they're printed on. As we start to deliver curricula digitally, we need to seriously reckon with three questions. Why should we bother connecting math to the world outside the math classroom? How do teachers and curricula weaken that connection? And how can we strengthen it?

GI | PRS | 303 | Saturday, 11:00 - 12:00 | Asilomar | Heather | BT

Miller, Lisa — Math Teacher/Coach, Napa HS, Napa Valley USD
Strategies to Reach At Risk Student in Algebra 1

How do we help our at risk students be successful in Algebra? How do we help students who have experienced previous math failure to have confidence in their Algebra skills? Examine how a team of Algebra teachers used a combination of research informed best practice strategies and technology (calculators and responders) activities to drastically improve not only the Algebra 1 pass rate, but also the high school Exit Exam pass rate of at risk math students.

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

Preparing Students for the High School Exit Exam in Math

Preparing tenth graders for the Exit Exam, which tests middle school standards, while not compromising high school math curriculum is a challenge. Learn how a math department prepared their students using two formative assessments, a simple study guide, and short weekly reviews with minimal interruption to their core curriculum. This system resulted in gains in their tenth grade pass rate with significant growth among English Language learners and economically disadvantaged students.

8-12 | PRS | 143 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 24 | BT

Moore, Sage (Ann) — Teacher, Skyline HS
Math Circles as Strategic Intervention

We will be looking at Math Circles as vehicle for helping students develop, communicate, and consider mathematical reasoning and transform their relationship to academics. Instead of using tutoring as an academic intervention, what would happen if we provide students with a different experience of mathematics, one that is mathematically rich and fosters mathematical reasoning?

At Skyline High School, a Title 1 comprehensive urban high school in East Oakland, we surmounted the barriers of transportation and student fear and curiosity to get students to attend the Math Circles outside of school by creating one ourselves. This Math Circle specifically targets underperforming mathematics students.

Two students and I will discuss this process and its successes and issues, and lead you through a math circle activity.

6-12 | INT | 446 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 27 | BT

Moore, Sara — Director, Math and Science, ETA/Cuisenaire
Manipulatives for Mathematical Practices

A critical component of the Common Core State Standards is the integration of mathematical practices (what mathematicians do) with mathematics content (what mathematics students must learn) in instruction. Learn how hands-on instruction with manipulatives can make the mathematical practices come alive in the classroom.

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

CALL FOR SPEAKERS!

Interested in presenting at the 2012 Asilomar Mathematics Conference? The theme is **Finding Common Ground with California Common Core Standards**. Speaker proposals will be accepted between January 30 - April 21, 2012. To submit your online proposal go to: www.cmc-math.org/activities/north_speakers.html

Morrison, Patty — Teacher, Viking ES, Fresno USD

Teaching Measurement and Physical Science Together in K-1

Teaching time is precious! Come and get a K-1 integrated math and science unit that is ready to use! The techniques demonstrated in this session will help you to accomplish more in your instructional time. We will focus on engaging students using hands-on learning, while teaching measurement, solids, liquids, and gases together. Integration of standards is critical to teach the content needed in our limited time with students. You will leave the session with lesson plans and activity masters.

PK-2 | PRS | 356 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 38 | BT

Moskowitz, Stuart — Lecturer, CSU Humboldt

Renew Yourself by Teaching Math in Another Country

Whether you are a new teacher, a seasoned veteran, or retired, you have much to offer and learn by teaching in another country. The US National Commission on Math Instruction (USNCMI) sponsors this session by bringing panelists together to discuss their own international experiences and to respond to your ideas/questions about teaching overseas.

GI | PRS | 103 | Saturday, 8:00 - 9:00 | Asilomar | Heather | BT

Co-presenter: Cathy Seeley — Senior Fellow and Keynote Speaker, Dana Center, Univ. Texas, Austin

Mulhearn, Dennis — Retired, Math Olympiads for Elementary and Middle Schools

Area—No Problem?

Discover how area concepts can be investigated and reinforced by solving authentic, non-routine problems. Finding such problem-solving gems can be the real problem for teachers. You will work through at least a dozen area classics, which have been selected from the Math Olympiad library. Participants will leave with these and over 50 additional rich problems.

3-8 | WKS | 156 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 38 | BT

Muller, Eric — Senior Science Math Educator, Exploratorium Teacher Institute

Having a Gas with Math: Teaching Geometry and Algebra with Air Pressure

Come expose yourself to air pressure in math. 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'll do some math and find out how much your car weighs without using a scale. These activities were created at the Exploratorium Teacher Institute at the museum of science, art and human perception in San Francisco.

6-12 | WKS | 440 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 13 | BT

Munshin, Sara — Consultant

Activate CCSS for Mathematical Practice with NCSM's PD Model

The presentation will be a model teacher workshop at the middle school level that includes high cognitive tasks, reengagement with the tasks, and a discussion of classroom implementation. Materials for the presentation are from the Inside Mathematics web site in partnership with the Noyce Foundation. The PowerPoint presentation will be made available for participants to use with others.

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

Murray, Bredeen — Math Teacher, Live Oak School

Beyond Sudoku: Use Logic Puzzles to Develop Reasoning Skills

Logic puzzles are an engaging way to introduce students to deductive reasoning and proof, two key components of professional mathematics. In this interactive workshop, participants will learn how to use puzzles to create an accessible way for students to engage in mathematical reasoning. Participants will break down the process of writing a proof, write "because statements" and develop simple proofs to show that their solutions are correct, modeling how these ideas can be used with students.

6-12 | INT | 447 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 28

Murray, Tom — Math Facilitator, San Mateo-Foster City SD

Blood Count: Are You At Risk?

Blood Count is a math-science simulation that has students make comparisons between predetermined "blood" sample profiles and a patient's "blood" test. Students use random sampling techniques (probability) to make a diagnosis about possible blood diseases based upon the composition of the sampled "blood." Real world applications of probability and data analysis, as well as graphing, cooperative learning and writing are key components of this activity. Connections to Common Core State Standards will be discussed.

6-8 | WKS | 134 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 5 | BT

Newsomer's Session

GI | PRS | 110 | Saturday, 8:00 - 9:00 | Asilomar | Curlew

Novelli, Barbara — Consultant

Simple Strategies to Support Problem Solving in Your Primary Classroom

Come explore simple strategies that will help all learners in your classroom become better and more effective problem solvers. Barbara will share student work and group posters that demonstrate some of the easy to implement problem solving techniques. Writing in the problem solving math classroom will be a major strategy shared as well as the use of great literature.

PK-2 | INT | 239 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 12 | BT

Simple Strategies to Support Problem Solving in Your 3-5 Classroom

Come explore simple strategies that will help all learners in your classroom become better and more effective problem solvers. Barbara will share student work and group posters that demonstrate some of the easy to implement problem solving techniques. Writing in the problem solving math classroom and the use of great literature will be major strategies shared.

3-5 | INT | 339 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 12

Nussdorfer, Lisa — Teacher, Hearthstone School, Butte COE

See What You Can Do with the Mobi—a Mobile SMARTboard!

I will model how math lessons can become more interactive when using the Interwrite Mobi Panel, a tablet-sized tool that allows you to write, draw or highlight directly on your computer projections. Sample Algebra I lessons that use cloze notes in conjunction with the Mobi will be shared. How to use the Mobi to upload pdf files to your blog or blackboard will be covered. Other technological tools such as online flashcards, Microsoft mathematics, and office products will be shared.

8-12 | INT | 407 | Saturday, 1:30 - 3:00 | Asilomar | Acacia | BT

**Pasternack, Marian — Instructor, CSU Northridge
Practice Makes Perfect?**

Using the new Practice Standards as a guide, we will work through activities and problems, learning how to adapt those standards as we teach in the classroom.

6-8 | INT | 543 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 24 | BT

**Paulson, Nancy — Teacher, San Marcos MS, San Marcos USD
Promote Discourse and Sense-Making with Math Games**

Students gain/discuss strategies and engage in sense making while learning unique, multiple representation strategies, and motivating games for prime factoring, factoring to find LCM and GCF. Strategies are extended, using the distributive property, for factoring of polynomials and quadratics.

6-8 | INT | 243 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 24 | BT

**Paulus, J. Christopher — Math Teacher, Santa Maria HS
Origami and the Standards**

See how you can utilize origami to help students better understand the California Mathematical State Standards. Using folding paper can aid student's understanding of abstract mathematical ideas. You will have the chance to create hands-on make-it, take-it projects that you can use in your classroom right away.

6-12 | INT | 530 | Saturday, 3:30 - 5:00 | PG Middle School, Library | BT

**Pickford, Avery — Math Teacher, The Nueva School
Making Common Core Process Standards
More than an Afterthought**

The K-12 content standards are 76 pages long; the process standards are just three. I will share how I make mathematical process (problem solving/mathematical habits of mind) a central part of my classroom. I will discuss frameworks and tools I use to elevate problem solving to more than just a label for Friday afternoon puzzles that don't have clear connections to content. Successes/failures with student work and lessons appropriate for elementary, middle, and high school will be shared.

GI | PRS | 514 | Saturday, 3:30 - 5:00 | Asilomar | Surf & Sand | BT

**Post, Barbara — Retired
Reaching All Learners: Making a Difference**

How do you encourage students to tackle tough mathematical problems that are presented in nontraditional ways? In this presentation we explore rich problems with multiple solutions. Students will be encouraged to develop and share their own problem solving strategies, allowing all students access to the curriculum and helping them develop their own identity. This will support students in using academic discourse, making conjectures, justifying conclusions, and constructing viable arguments.

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

Co-presenter: Nita Walker — Math Specialist, Santa Ana USD

**Preston, Robert — Math Coach, John A. McManus and Citrus
Schools, Chico USD**

Making the Most of Your Everyday Mathematics Classroom

The Everyday Mathematics' program is a rich mathematical adventure, one full of wonderful opportunities for all children to understand the mathematical world around them. As teachers, we need to deepen our own understanding of mathematics in order to allow our students to access this world. This session will address the common elements of the program (K-6) and help to flesh-out the mathematics we need our children to see and understand. Bring your TLG and let's learn together.

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

**Pugalee, David — Director, UNC Charlotte, Center for STEM Ed.
Mathematics Instruction using Decision Science
and Engineering Tools**

Mathematics Instruction using Decision Science and Engineering Tools (MINDSET) uses decision making tools from Industrial and Systems Engineering and Operations Research in a high school mathematics curriculum. The curriculum is presented as real-world problems that makes the underlying mathematics more relevant. Principal performance goals are to improve the students' ability to formulate and solve multi-step problems and interpret results, and to improve students' attitude toward mathematics.

8-12 | PRS | 337 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 10 | BT

**Randall, David — Teacher, Educational Consultant, SRI Int.
The Fun, Fast and Easy Way to Solve Single-Variable Equations**

Take away skills you can use in class, and can quickly teach students. Learn methods that will improve performance on homework and assessments. Appropriate for remedial through advanced students. Addresses problems from Engineering.

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

Co-presenter: Constance Hughes — Educational Consultant, SRI Int.

**Reiter, Dave — Teacher, Branson School
Credit Cards and Exponential Growth: A Project-Based Approach**

Do your students ask "Why do I need to learn math when I'll never use it?" Do you want to design your own projects? This session shares a project exploring credit cards and exponential growth. Nontraditional features of the project include: student research, recursion on the TI-84, and creative multimedia presentations. Years later, former students remember the "credit card project" more than anything else. We'll conclude with a participant-driven discussion of other good project topics.

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

ASILOMAR PATHWAYS

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



Resek, Diane — Professor Emerita, UC San Francisco
Math Problems to Engage Students at Different Levels

An assortment of problems will be given that are designed to engage students who already know the “basics,” while helping other students learn those basic facts and ideas.

3-8 | INT | 335 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 6 | BT

Restivo, Nicholas — Executive Director, Mathematical Olympiads for Elementary & Middle Schools
Generating Student Excitement for Problem Solving Using Technology

Real problems must be appropriately challenging, have multiple solution paths, and lead students to a better understanding of math concepts. Using interactive teaching technology, participants will discover ways for their students to become better problem solvers, while preparing them for any assessment they may encounter.

3-8 | INT | 354 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 36 | BT

Unpacking Geometry Problems from Boxes You Make

Participants transform used greeting cards into boxes (while gaining a hands-on understanding of the relationships between linear, square, and cubic measurements) useful for small item storage. Discover geometry concepts, make conjectures, and answer probing questions about parallelograms, rectangles, squares and other quadrilaterals. Ratios and proportions are revisited to compare the original surface area to the box created. Problem solving activities are explored to bring back to the classroom.

3-8 | WKS | 557 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 39

Richman, Gena — Teacher, Mary Collins School at Cherry Valley, Petaluma City SD

Common Core Practices Using Rigorous and Contextual Problems

The Common Core Standards emphasize powerful mathematical practices, such as sense-making, perseverance, constructing viable arguments, and precision. Investigate a rich, contextual and hands-on multiplication problem using factoring, the distributive property, surface area, and volume. Participants will learn about the Core Mathematical Practices, strategies to support students’ development of these practices, and how to find evidence of that development within students’ written work.

3-5 | WKS | 531 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 1

Co-presenter: Kathy Morris — Associate Professor, Sonoma State Univ.

Ritchie Reese, Patricia — Mathematics Instructor, Sierra College
String Polyhedra with a Twist

Join us as we use straws and elastic thread to build polyhedra that twist and flex into beautiful shapes. You will be amazed at how you can transform a 3-D shape into a 2-D shape or into other 3-D shapes hidden within. Each year many participants return to create new polyhedra to take home and explore! There are also many wonderful examples of student-group investigations, created using a variety of materials that will be on display. Come join the fun. The possibilities are endless!

GI | MITI | 330 | Saturday, 11:00 - 12:00 | PG Middle School, Library | BT

Roddick, Cheryl — Math Professor, San Jose State Univ.
Math Mardi Gras

Learn how to create and run your own math fair where students become engaged in mathematics at all levels. Interact with the hands-on math booths, and learn how to develop interesting mathematical experiences on a variety of topics. The key to the success of these booths is a two-tiered question structure, designed to challenge each visitor at his/her level. The end result is a program that everyone enjoys participating in, from the novice student to the ardent competitor.

3-8 | INT | 117 | Saturday, 8:00 - 9:00 | Asilomar | Nautilus West | BT

Co-presenter: Lori Mains Donna Dicker

Rodgers, Sherry — Math Consultant, Tehama County Department of Education

Finding Patterns with JUNK

In this Make-It, Take-It session you will first experience using the junk sequence folders as if you were a student in the classroom. Patterns were made out of JUNK like toothpicks, metal washers, paper clips, or pennies glued into a folder. Building the next figure to continue the pattern with the JUNK provided can make algebraic thinking accessible for K-8 students. You will be given time and materials to create your own folders to take home and use in class on Monday.

3-8 | MITI | 430 | Saturday, 1:30 - 3:00 | PG Middle School, Library | BT

Co-presenter: Hope Bjerke — Math Consultant, MLMC

Rogers, Paul — Math Teacher, MIT Academy
Smart-er Boards for Dummies

Last year I presented a basic demonstration of an interactive whiteboard and what you might do with it. This year, I have a little more experience and the SmartBoards are getting a little smarter as well. Come and have some fun and, together, let’s see if we can’t get a better handle on the T in STEM. A Disk ‘O Stuff for those brave enough to stay for the whole show.

6-12 | PRS | 348 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 29 | BT

Rossi Becker, Joanne — CAMTE President
CAMTE Business Meeting

Tchr Ed | PRS | 109 | Saturday, 8:00 - 9:00 | Asilomar | Marlin

Schaffer, Karl — Faculty, De Anza College
Dancing with Mathematics: Exploring Rhythm and Symmetry

Both mathematicians and dancers must perceive and utilize symmetries in space and time, and we delineate types of symmetries by creating and analyzing group movement phrases. The ways rhythms are used vary from culture to culture, and we connect rhythm activities to concepts like least common multiple. We provide handouts connecting rhythm and symmetry to graphing in the plane. The presenter co-directs a dance company that performs mathematical dances that have given rise to these activities.

GI | INT | 403 | Saturday, 1:30 - 3:00 | Asilomar | Heather | BT

Selby, Victor — Author, Curriculum Consultant, Carmel HS (retired)

STEM Power: From Pythagoras to Special Relativity and Beyond

Bring some “big ideas” from science into Geometry and Algebra 2 to illustrate the connection of building mathematical models to the advancement of modern culture and engineering. This session will discuss a few properties of “Space-Time” and how the Michaelson-Morley experiment and the Pythagorean Theorem led Einstein to Relativity Theory. Also shown will be examples of student-produced essays that add much depth and understanding in the math classroom.
8-12 | PRS | 304 | Saturday, 11:00 - 12:00 | Asilomar | Oak Shelter | BT

Serra, Michael — Author, SFMTA, CMC, NCTM

Teaching Sequential Reasoning Through Games and Puzzles

Participants will play games and solve puzzles that develop mathematical reasoning. Problem solving and proof will be our main focus but mathematical topics may include rectangular and polar graphing as well as vectors.
8-12 | INT | 401 | Saturday, 1:30 - 3:00 | Asilomar | Fred Farr Forum | BT

Silverman, Sandy — Coordinator, San Diego COE

Add It All Up: Exploring K-1 Addition

Discover addition! Play new learning activities and old favorites while considering knowing addition as a concept, as a basic skill, and as a tool for problem solving. Explore the counting-adding connection. Experience hands-on minds-on place value learning. Learn developmental strategies for implementing the math standards.
PK-2 | WKS | 435 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 6 | BT

Sisk-Hilton, Stephanie — Assistant Professor, UC San Francisco

Data Representation of Scientific “Big Ideas” for Children

In this session, we will explore how young children use different forms of data representation to scaffold their understanding of “big ideas” in biology. This work is based on research exploring how to support second and third graders’ emerging understanding of natural selection. We will provide examples of how to use representations of sample characteristics/trait distribution to make this core scientific idea more visible.
PK-2 | INT | 305 | Saturday, 11:00 - 12:00 | Asilomar | Evergreen | BT

Smiler, Helen — Coordinator, National Projects, Project SEED

The Skys’ the Limit! Discovery, Basic Skills, Higher Math

Precalculus topics can be introduced to younger students to engage and motivate them while improving their basic skills. We will show how Project SEED’s discovery teaching strategies can be used to teach summations and limits in ways that are accessible and challenging to students of all skill levels, simultaneously embedding work with prealgebra skills such as fractions, decimals, variables, exponents, negative numbers, patterns and algebraic thinking in the discovery of powerful results.
6-8 | PRS | 135 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 6

Starnes, Daren — Math Department Chair and Master Teacher, The Lawrenceville School

Ten Terrific Applets for Teaching Probability and Statistics

Want to find the probability of matching birthdays, getting a full set of collector cards, or winning on Let’s Make a Deal? There’s an applet for that. Want to decide if a coin is fair, whether one experimental treatment is better than another, or if an association between two variables is statistically significant? There’s an applet for that. In this session, we’ll look at ten dynamic applets for exploring probability and statistics concepts from the Common Core to AP Statistics.
8-12 | PRS | 457 | Saturday, 1:30 - 3:00 | PG Middle School, Rm 39

Stetson, Deb — Project Director, CSU Sacramento

Equivalent Fractions: A Great Place for Sense Making

Get children thinking and talking about equivalent fractions before teaching the procedure to make equivalent fractions. Come do the mathematics—reason and construct arguments using fractions on the number line. Then view video in which children are reasoning about fractions on the number line. Leave with questions and tasks you can use with your students to assist them in doing the Standards of Mathematical Practice. These ideas lay the foundation for understanding common denominators.
3-8 | INT | 414 | Saturday, 1:30 - 3:00 | Asilomar | Surf & Sand

Strange, Kathleen — Mathematics Curriculum Writer

What Textbooks Don’t Tell You About Fractions

Most mathematics textbooks do not include the unifying ideas needed to explain and understand fractions. As a result, students continue to ask questions such as “why can’t we divide fractions the same way we multiply fractions?” Answer: We can! Find out how and why from a mathematics teacher and textbook writer. This session provides fraction explanations and hands-on activities to answer the most common student (and teacher) questions about fractions and operations with fractions.
3-8 | INT | 157 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 39 | BT
Co-presenter: Jennifer North-Morris — High School Math Teacher/Trainer

Sun, Henry — Teacher, Franklin MS, Vallejo City USD

Free Technology for Enhancing Math Instruction

Teachers are always looking for ways to enhance the learning experience, and technology provides many free applications that do just that. This class will examine several examples (Wikis, collaboration tools, assessment tools, etc.) that are available to teachers.
6-12 | INT | 554 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 36 | BT

Tamez, Modesto — Museum Educator

The World Will Not End in 2012, Maya Math

My final Asilomar Maya Math presentation. Learn how your students can decipher Maya math. The first 30 participants will receive one of my last copies of our book *Math and Science Across Cultures*. This is a hands-on activity book dealing with every day math of cultures from around the world. The activities are challenging, authentic and can be connected to many standards.
3-8 | INT | 508 | Saturday, 3:30 - 5:00 | Asilomar | Toyon

Thomas, Kim — Math Teacher, Moon Valley HS, Glendale Union HSD

Nspiring Minds Want to Know...Which Quadrilateral is It?

This session features TI-Nspire™ technology to verify characteristics of given geometric figures using coordinate formulas for distance, midpoint and slope to confirm parallelism, perpendicularity and congruency. Participants will receive hard copies of the activity as well as access to electronic documents.

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

Co-presenter: Veronica Carson — Math Teacher

Tobes, Jeff — PreAlgebra Teacher, Wright Charter School, Wright SD

Math and Carpentry for the Young

This session explains and shows how every sixth-grader in this inner-city class made a sturdy, cool step stool of which all were proud. It emphasizes measurements and fractions. Handouts will be distributed explaining the supplies necessary, schedule and process of making a step stool. A photo documentary will also be distributed. The class learned and experienced the importance of accuracy, working as a group, good things take time, appreciation of wood and patience. Join us. You'll like it.

3-8 | PRS | 537 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 10 | BT

Tripathi, Preeti — Assistant Professor, SUNY Oswego

Implementing CCCS: Sense-making Through Classroom Questions

Designing thought-provoking tasks for students is at the heart of teaching mathematics for understanding. Good tasks and ensuing questions can together develop habits of the mind that promote sense-making in students. How do we use tasks in existing texts to create such problems, and build questions to elicit responses based on reasoning? I make suggestions that teachers may find useful in designing/modifying tasks and developing questions for their classrooms to promote algebraic thinking.

8-C | PRS | 115 | Saturday, 8:00 - 9:00 | Asilomar | Triton | BT

Trow, Marilyn — Director, Math Intervention

Rebuilding Kids' Cognitive Structures for Understanding Math

There is a basic core for mathematics that forms the basis for decoding mathematics. In this interactive session, we will uncover the Common Core Standards to reveal the "core within the core" and the implications this has for intervention.

PK-5 | INT | 545 | Saturday, 3:30 - 5:00 | PG Middle School, Rm 26 | BT

Vierra, Vicki — K-12 Math Specialist, Ventura COE

Think and Work as Mathematicians with Common Core Math Practices

Using contextual problems, students see themselves as mathematicians. Help students develop the skills and processes of mathematicians—looking for entry points, analyzing relationships and planning solution pathways.

6-8 | WKS | 416 | Saturday, 1:30 - 3:00 | Asilomar | Nautilus East | BT

Co-presenter: Helen Shimato — Math Consultant, retired

Wahl, Bernt — Faculty, UC Berkeley

Fractals: Geometry of Nature and Beyond

This session will cover curriculum from a broad range of science and math topics. The online class will provide instruction at appropriate academic levels, with the opportunity of offering additional material for those who want to expand their knowledge in specific areas. The plan is to expose students to various disciplines where fractal mathematics is applicable (both in its linear and non-linear forms). The online medium has the capabilities to target users to areas where research has provided insights into solving problems for different topics, so the students have the opportunity to do their own exploration using these new mathematics techniques in their studies. Instruction will build on basic fractal forms, show how they are generated and where they can be found in the natural world, as well as how they can be used in formulating greater understanding in the analytic process.

6-12 | PRS | 140 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 13 | BT

Warkentin, Don — Math Teacher, Dinuba HS

Triangle Triage: When is a Right Triangle Elegant?

Participants will learn how to use the Triangle Inequality and Pythagorean theorems together with basic trigonometry to discover something elegant about a grand piano lid's angle of elevation. Will our conclusion be driven more by aesthetics or by acoustics?

8-12 | PRS | 203 | Saturday, 9:30 - 10:30 | Asilomar | Heather

Whitfield, Diane — Product Manager/Specialist, CASIO MRD Center

Teaching Algebra using Technology to Struggling Students

Can this be done? In this workshop, we will explore how technology has been incorporated into lower Algebra classes in a way that builds self-esteem and understanding. Research data will be provided. One ClassPad 330 will be given away.

8-12 | WKS | 145 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 26 | BT | \$

Wieggers, Brandy — Program Director, UC San Francisco

Mathematical Biology Beyond Fibonacci, Into the Real World

Using mathematical biology to explore problem solving and real world modeling is an opportunity to build student's confidence of their mathematical intuition. Mathematical modeling is a chance to set the arithmetic to the side and to instead empower students to make quick estimates, justify their work, write about mathematical methods, and review numerical results. This presentation will include models of corn root growth, deer population growth, and much more.

6-12 | INT | 154 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 36 | BT

Willebrand, Sheri

Explore an Integrated Math and Science Investigation

Tap into children's natural curiosity by exploring a hands-on science investigation that builds a foundation for Mathematical Identity. Describe, sort, and classify a set of common objects two different ways. Based on an Elementary Science Study (ESS) unit.

PK-2 | WKS | 340 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 13

CONFERENCE EVALUATION FORM

Complete conference evaluations online _____ 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 _____ and _____.

Winicki-Landman, Greisy — Professor, Cal Poly Pomona
A Transformational Approach to Transform Your Classroom

One of the main innovations introduced by the Common Core Content Standards for Mathematics is the emphasis on mathematical structures in general, and the transformational approach to geometry in particular. This approach will be demonstrated in this session with activities inspired by the Standards for Mathematical Practice that can be taken straight to your classroom. Come ready!

8-12 | WKS | 214 | Saturday, 9:30 - 10:30 | Asilomar | Surf & Sand | BT

Wolfson, Risa — Math Coach, UC Berkeley
STEM + A(rt) -> STEAM! A Math Art Integration Project

In 2010, the Bay Area Math Project partnered with visual artists to bring the Math Art Integration Project to Pre-Algebra classes in Berkeley Unified. We will explore the math concepts and academic language that support a sculpture activity, including proportional reasoning and nets of cubes. You'll leave with materials and ideas to do your own project next week—and a sculpture of your own! Time will also be spent discussing how to adapt these middle school materials for other grades.

3-8 | WKS | 410 | Saturday, 1:30 - 3:00 | Asilomar | Curlew

Wormell, Lynda — Math Teacher
Two-digit Multiplication and More Using Ten Square Graph Paper

Students will develop number sense and an understanding of two-digit multiplication by using graph paper, paper and pencil, and estimation.

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

Wu, Zhonghe — Associate Professor, National Univ.
Integrated Activity: From Math and Science to Technology and Engineering

This presentation addresses an activity-based approach that integrates mathematics, science, technology, and engineering. Participants will be engaged in active learning by integrating mathematics and science to technology and engineering.

3-8 | PRS | 234 | Saturday, 9:30 - 10:30 | PG Middle School, Rm 5
 Co-presenter: Shuhua An — Professor, CSU Long Beach

Youngs, Dave — Professor, Fresno Pacific Univ.
Mathematics in Support of Hands-on Science

Mathematics is the “language” of science. Mathematics applied in science experiments gives meaning to both the math and the science. This workshop for grades 3-8 teachers will introduce a number of engaging hands-on science activities that apply mathematics in meaningful contexts.

3-8 | WKS | 141 | Saturday, 8:00 - 9:00 | PG Middle School, Rm 21Lab

Yu, Julie — Staff Scientist
Geometry Through 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 simple math to answer these questions and explore basic ideas in geometry. Mirrors provide an engaging, hands-on way to investigate concepts such as angles, symmetry, and, of course, reflections.

6-12 | WKS | 336 | Saturday, 11:00 - 12:00 | PG Middle School, Rm 7 | BT

Zeller, Erich — Senior Content Specialist,
MIND Research Institute

Building Visual Models for Access and Understanding

Use visual models to illustrate additive and multiplicative reasoning with interactive software. Learn a process to deepen students' mathematical understanding in a way that supports and encourages language development and mathematical reasoning. Make sense of the order of operations beyond rote memorization. Participants receive software and lesson plans.

3-5 | WKS | 114 | Saturday, 8:00 - 9:00 | Asilomar | Surf & Sand

Zucker, Joshua — Director, Mathematical Sciences
Research Institute

A Math Teachers' Circle: Coins in Twoland, and Place Value

Coins in Twoland is an activity accessible to elementary school students and yet deep enough to result in papers published in professional mathematics journals. We will experience the activity, find and explain patterns in our observations, and then discuss the pedagogy of using a problem-solving oriented approach to practice basic skills and develop understanding.

GI | WKS | 502 | Saturday, 3:30 - 5:00 | Asilomar | Kiln | BT

NAME BADGES!

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

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.

CELL PHONES AND PAGERS

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

SPEAKER PROPOSALS

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

CONFERENCE NOTES

A large rectangular area containing horizontal lines for writing notes.

SESSIONS AT A GLANCE

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience							Beginning Tchr.	Comm. Product
		K-2	3-5	6-8	9-12	College	Ldshp/TchEd	GI		
Albrecht, Masha	Projects and Group Tasks for Diverse Geometry Classrooms			√	√				√	
An, Shuhua	Building Mathematics Specialist Programs						√		√	
Anderson, Jody	Assessment + Goal Setting = Achievement at Number CAMPP	√							√	
Arendt, Gene	Common Core Tips: Navigating the Teacher Tightrope with Technology			√	√					
Arth, Karen	Algebra 2 and CCSS for Mathematical Practice: Where's the STEM?			√	√				√	√
Atkin, Kyle	Statistics 101 using Sports and Technology			√	√				√	
Barbara, Manny	Preparing Students for Algebra in the 8th Grade			√	√					
Beeman, Bix	A Breathtakingly Gorgeous 107 Acres? How'd They Get That?			√	√					
Belcher, Jenny	Making Sense of Fractions and Operations with Fractions		√	√					√	√
Bellman, Allan	You've Checked for Understanding—Now What!?			√	√				√	
Bennett, John	Brain Games!			√	√				√	√
Berglund, Jorgen	Mathematics CSET's Impact on Subject Matter Competence						√			
	Exploring Transformations with Dynamic Geometry			√	√					
Biehl, Chuck	Steiner Networks: A "Radical" Experience			√	√				√	
Bintz, William	Rigor and the Common Core							√		
Bjorkman, Thomas	Math Intervention Class for Middle Schools	√		√						√
Blachman, Nancy	Enjoyable Ways to Learn Math Facts via Magic, Puzzles, and Activities		√						√	
Bloomsburgh, Peter	An Intervention Program to Help Struggling Algebra Students			√						
Bohlin, Carol Fry	Building Powerful Foundational-Level Mathematics Programs						√			
Boswell, Laurie	Big Numbers: Problems to Interest and Engage Students			√					√	
Brady, Victoria	Solar Calendar Geometry: It's All About Angles!			√	√				√	
Brice, Anna Wan	Using Data from NOAA in a Technology Based Lesson			√	√				√	
	From Web Sites to Programs, Technology in High School Geometry			√	√				√	√
Brooking, Elizabeth	Teaching Earth Science through Math (grades 3-8)		√	√					√	
Brown, Ron	Rock Your Math Class	√							√	√
Brown Brooks, Gloria	From Flatland to Zometown: A Journey into Other Dimensions			√					√	
Burrill, Gail	Mathematical Practices and the Role of Interactive Dynamic Technology			√	√					√
Burson, Renae	Reasoning with Rekenreks	√								
Carlson, Veronica	"Nspiring" the Algebra 1 Classroom			√	√				√	
Carlyle, Ann	Expanding Math Talk With Our Youngest Students (Pre K)	√							√	
Carranza, Shelley	Making Math Visual with Geogebra			√	√				√	
Carroll, Cathy	Making Middle School Mathematics Accessible to English Learners			√					√	
Casey, Christopher	Teaching Measures of Central Tendency in the Sixth-Grade Classroom			√					√	
Cheng, Ivan	Thinking "Inside the Box" to Help All Students Learn Algebra			√	√				√	
Childs, Leigh	Engaging, Effective Strategies = Numerically Nimble Students		√						√	

SESSIONS AT A GLANCE

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience							Beginning Tchr.	Comm. Product
		K-2	3-5	6-8	9-12	College	Ldship/TchEd	GI		
Choate, Laura	Build Number Sense with Effective Games and Practices	√							√	
	Build Number Sense with Visual Models and Games	√							√	
Clark, Heather	Looking at Long Division Through New Eyes		√							
Clements, Maureen	Compelling Literature to Support Math Content	√								
Coates, Grace	Family Engineering: A Natural Intersection for Mathematics and Science		√							
Cook, Marcy	Mathematical Problem Solving: The Thinking Sport		√	√						
	Think and Touch: Hands-on Activities for All	√							√	
Cossey, Ruth	Proportional Reasoning and the Standards of Mathematical Practice			√						
Costa, Elmano	Core Practice for English Learners Is Comprehensible Input	√	√						√	
Cummins, Jerry	The TI-Nspire CS Graphing Calculator to Engage STEM Students			√	√					√
Dagler, Clayton	Using Flow Charts in the Math Classroom			√	√				√	
Dallas, Heather	The Common Core Standards Claim to be Mathematically Coherent						√			
Damm, Suzanne	Common Core . . . What Can I Do Today?		√							
DeCarli, Elizabeth	Make it Move: Modeling Middle School Math with Technology			√	√				√	√
DeLaby, David	Linear Systems: A Coherent Approach Accessible to All			√	√				√	
Dirksen, Jennifer	ProofBlocks: A Visual Approach to Logic and Proof			√	√				√	
Dockterman, David	Common Core, Uncommon Students							√		
Dorf, Carol	Talking Back to Mathematics: Poetry in the Mathematics Classroom			√	√					
Douglas, Lew	Connecting Math and Music							√		
Eisenberg, Gary	The Three Secrets	√							√	
Erickson, Sheldon	Movie Math Mania: Engaging All Students to Learn with Fun			√					√	
Erlandson Block, Staci	Creating an Environment of High Student Engagement	√	√						√	
Farrand, Scott	Polynomial Surprises			√	√	√			√	
	What Are We Really Doing When We Solve Equations?			√	√				√	
Fenton, Michael	Nspiring Navigations in Mathematics			√	√				√	
Fiedler, Joseph	Competencies in Math Expected of Entering College Students			√	√	√			√	
Foster, David	Examples of Assessments and Curriculum for Common Core SS							√	√	
Freathy, Mark	Building the Foundation for Algebra Using Factors and Terms			√	√				√	
Gale, Mardi	Essential Elements for Intervention: Not Business as Usual			√	√				√	
Giganti, Paul	Fun with Binary Numbers: How 1s and 0s Can Teach Us a Lot About ...		√	√					√	
Gillespie, Janet	Make Every Day Count with Games for Number Concepts	√							√	√
Gojak, Linda	Connecting Mathematical Practice to Content Using Rich Tasks		√						√	
	What's Your Math Problem?		√							
Goldenstein, Donna	Mathematics and the Arts: Thinking and Reasoning Through Art		√							
Gomez, Emiliano	Number Sense, Rational Expressions via Resistors in Circuits			√	√					

SESSIONS AT A GLANCE

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience							Beginning Tchr.	Comm. Product
		K-2	3-5	6-8	9-12	College	Leadership/ChEd	GI		
Gooch, Dean	Discovering and Processing Numbers Found in the Wild			√	√	√			√	
Good, Leslie	Explore the Beauty of Math Through Art		√							
Goularte, Renee	GeomARTry!	√	√						√	
Greco, Jim	STEM at the California Department of Education							√	√	
	Algebra Dilemma: California CCSS on Content, Instruction, Assessment...			√	√				√	
Grzegorzczuk, Ivona	Making Algebra Fun with Games			√	√					
Guzik, Randy	What is Calculus All About?							√	√	
Hakansson, Susie	Develop and Understand Proportional Reasoning		√	√					√	
Hamo, Matthieu	All Students Can Be Problem Solvers!		√	√					√	
Herrington, Diana	Don't Forget the M in STEM (two sessions)			√	√					
Hogan, Marie	Get Your Students Hooked on Noticing and Wondering			√					√	
Holm, Calisa	Easy Activities to Boost English Learners' Math Vocabulary		√	√					√	
Holman, Lynda	Shapes and More Shapes	√							√	
Jacobs, Harold	Mathematical Snapshots of 2011			√	√	√			√	
Jalalpour, Kathleen	Adopting Singapore Math: A Case Study							√		
Kanold, Tim	Three Practices of Inspirational Leaders: Building Your Leadership Path ...						√			
Keig, Carol	I'm All Alone: Networking for Isolated Algebra Teachers			√	√					
Kirley, Kim	Not Your Usual Literacy Connection!	√							√	
Kreith, Kurt	"The Cosmic Distance Ladder" Revisited			√	√	√				
Kriegler, Shelley	Transformational Geometry in Eighth Grade? WOW That's New!			√	√				√	√
	Using Linear Functions to Model Math Ideas			√	√				√	√
Kysh, Judith	Group Tasks in Algebra that Support Math Discussion			√	√				√	√
Lambertson, Lori	Our Atmosphere By the Numbers: Scale Models, Ratios, Percent			√					√	
Lane, Deborah	Let's Better Understand the Value of the Place		√	√						
Larson, Ron	Real Math, Real Life: A New Course for High School Students			√	√					
Lautze, Richard	Mathematical Reasoning and Cooperative Problem Solving			√	√				√	
Lawrence, Ann	Strategies for Helping Pre-Algebra Students Develop Symbol Sense			√					√	
Leinwand, Steven	Converting Typical PD into Real Teacher Development Practices							√		
Lim, Brian	Make Use of Structure in High School Mathematics Classes			√	√				√	
Loew, Bob	National Board Certification			√	√					
Mackenzie, Christopher	An Appropriate Tool for Algebra is a Dynamic Spreadsheet!			√	√				√	
Magner, Philip	Real Time Data and Functions in the Math Classroom			√	√				√	
	Nspire Teacher Software as a Presentation Tool in the Math and Science...			√	√	√			√	
Marti, Andres	Sketches of the Common Core: Modeling Algebra and Function...			√	√				√	√
Matsumoto, Brandon	Using "0" and "1" to Connect Arithmetic to Algebra			√					√	

SESSIONS AT A GLANCE

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience							Beginning Tchr.	Comm. Product
		K-2	3-5	6-8	9-12	College	Ldshp/TchEd	GI		
Mayfield-Ingram, Karen	Creating Equitable Lessons to Impact Students' Understanding							√	√	
Mazzola, Alison	Developing Algebraic Thinking in the Younger Grades	√	√						√	
McLean, Peggy	Developing Mathematical Reasoning With Pattern Blocks		√						√	
McNamara, Julie	Beyond Invert and Multiply: Make Sense of Fraction Computation		√	√					√	
McPeak, Todd	Higher Algebra Proficiency with Digital Learning Tools			√	√				√	
Medeiros, Nadine	Teaching Geometry in the 21st Century			√	√				√	
Meyer, Dan	Why Students Hate Word Problems							√	√	
Miller, Lisa	Strategies to Reach At Risk Student in Algebra 1			√	√				√	
	Preparing Students for the High School Exit Exam in Math			√	√				√	
Moore, Sage (Ann)	Math Circles as Strategic Intervention			√	√				√	
Moore, Sara	Manipulatives for Mathematical Practices		√	√					√	
Morrison, Patty	Teaching Measurement and Physical Science Together in K-1	√							√	
Moskowitz, Stuart	Renew Yourself by Teaching Math in Another Country							√	√	
Mulhearn, Dennis	Area—No Problem?		√	√					√	
Muller, Eric	Having a Gas with Math: Teaching Geometry and Algebra with Air...			√	√				√	
Munshin, Sara	Activate CCSS for Mathematical Practice with NCSM's PD Model			√						
Murray, Breedeem	Beyond Sudoku: Use Logic Puzzles to Develop Reasoning Skills			√	√					
Murray, Tom	Blood Count: Are You At Risk?			√					√	
Novelli, Barbara	Simple Strategies to Support Problem Solving in Your Primary Classroom	√							√	
	Simple Strategies to Support Problem Solving in Your 3-5 Classroom		√							
Nussdorfer, Lisa	See What You Can Do with the Mobi—a Mobile SMARTboard!			√	√				√	
Pasternack, Marian	Practice Makes Perfect?			√					√	
Paulson, Nancy	Promote Discourse and Sense-Making with Math Games			√					√	
Paulus, J. Christopher	Origami and the Standards			√	√				√	
Pickford, Avery	Making Common Core Process Standards More than an Afterthought							√	√	
Post, Barbara	Reaching All Learners: Making a Difference		√							
Preston, Robert	Making the Most of Your Everyday Mathematics Classroom							√	√	
Pugalee, David	Mathematics Instruction using Decision Science and Engineering Tools			√	√				√	
Randall, David	The Fun, Fast and Easy Way to Solve Single-Variable Equations			√	√					
Reiter, Dave	Credit Cards and Exponential Growth: A Project-Based Approach			√	√	√			√	
Resek, Diane	Math Problems to Engage Students at Different Levels		√	√					√	
Restivo, Nicholas	Generating Student Excitement for Problem Solving Using Technology		√	√					√	
	Unpacking Geometry Problems from Boxes You Make		√	√						
Richman, Gena	Common Core Practices Using Rigorous and Contextual Problems		√							
Ritchie Reese, Patricia	String Polyhedra with a Twist							√		

SESSIONS AT A GLANCE

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience							Beginning Tchr.	Comm. Product
		K-2	3-5	6-8	9-12	College	Ldship/TchEd	GI		
Roddick, Cheryl	Math Mardi Gras		√	√					√	
Rodgers, Sherry	Finding Patterns with JUNK		√	√					√	
Rogers, Paul	Smart-er Boards for Dummies			√	√				√	
Rossi Becker, Joanne	CAMTE Business Meeting						√			
Schaffer, Karl	Dancing with Mathematics: Exploring Rhythm and Symmetry							√	√	
Schoenfeld, Alan	Teaching Mathematical Sense-Making: Formative Assess. and the CCS...							√		
Seeley, Cathy	Stars, Struggles, and Seizing Opportunities: Recognizing Every Student's...							√		
Selby, Victor	STEM Power: From Pythagoras to Special Relativity and Beyond			√	√				√	
Serra, Michael	Teaching Sequential Reasoning Through Games and Puzzles			√	√				√	
Silverman, Sandy	Add It All Up: Exploring K-1 Addition	√							√	
Sisk-Hilton, Stephanie	Data Representation of Scientific "Big Ideas" for Children	√							√	
Smiler, Helen	The Skys' the Limit! Discovery, Basic Skills, Higher Math			√						
Starnes, Daren	Ten Terrific Applets for Teaching Probability and Statistics			√	√					
Stetson, Deb	Equivalent Fractions: A Great Place for Sense Making		√	√						
Strange, Kathleen	What Textbooks Don't Tell You About Fractions		√	√					√	
Sun, Henry	Free Technology for Enhancing Math Instruction			√	√				√	
Tamez, Modesto	The World Will Not End in 2012, Maya Math		√	√						
Thomas, Kim	Nspiring Minds Want to Know...Which Quadrilateral is It?			√	√				√	
Tobes, Jeff	Math and Carpentry for the Young		√	√					√	
Tripathi, Preety	Implementing CCCS: Sense-making Through Classroom Questions			√	√	√			√	
Trow, Marilyn	Rebuilding Kids' Cognitive Structures for Understanding Math	√	√						√	
Vierra, Vicki	Think and Work as Mathematicians with Common Core Math Practices			√					√	
Wahl, Bernt	Fractals: Geometry of Nature and Beyond			√	√				√	
Warkentin, Don	Triangle Triage: When is a Right Triangle Elegant?			√	√					
Whitfield, Diane	Teaching Algebra using Technology to Struggling Students			√	√				√	√
Wiegers, Brandy	Mathematical Biology Beyond Fibonacci, Into the Real World			√	√				√	
Willebrand, Sheri	Explore an Integrated Math and Science Investigation	√								
Winicki-Landman, Greisy	A Transformational Approach to Transform Your Classroom			√	√				√	
Wolfson, Risa	STEM + A(rt) -> STEAM! A Math Art Integration Project		√	√						
Wormell, Lynda	Two-digit Multiplication and More Using Ten Square Graph Paper		√	√					√	
Wu, Zhonghe	Integrated Activity: From Math and Science to Tech. and Engineering		√	√						
Youngs, Dave	Mathematics in Support of Hands-on Science		√	√						
Yu, Julie	Geometry through Mirrors			√	√				√	
Zeller, Erich	Building Visual Models for Access and Understanding		√							
Zucker, Joshua	A Math Teachers' Circle: Coins in Twoland, and Place Value							√	√	
	A Math Teachers' Circle: Functions, Algebra, and Symmetry							√	√	

COMMERCIAL EXHIBITS

Company	Asilomar Merrill Hall	PG Middle Gym	Company	Asilomar Merrill Hall	PG Middle Gym
CMC Asilomar T-Shirts	128-129		Kidnexions		209
CMC ComMuniCator	126-127		Math Teachers Press, Inc.	152-153	
CMC Check In Bags and Badges		204-205	MathType by Design Science		206-207
A Plus Interactive	150	237	Mathematics Diagnostic Testing Project	141-142	
AIMS Education Foundation		215-217	MIND Research Institute	157	
ALEKS Corporation	144		Moore Educational Resources	156	
Bedford, Freeman & Worth (BFW) Publishers	104-105		Music Notes LLC	155	
California Casualty Auto and Home Insurance	106		Nasco		211-213
CASIO America, Inc.	108		NCSM	130	
Cengage Learning	143		NCTM		218-219
Center for Math and Teaching, Inc.	107		Oliver Worldclass Labs		246-247
Center for Research on Evaluation, Standards, and Student Testing (CRESST) at UCLA	125		Pacent Learning Solutions	149	
CK-12 Foundation	103		Pearson	158-160	
CMC Common Core	110-114		Pi-Dye T-Shirt Shop		214
CPM Educational Program	101-102		Renaissance Learning	119	
Curriculum Associates	134-135		Saxon	118	
DecoTech Systems, Inc		270	Scholastic Inc.	136-137	
Ed-Tex / Perfection Learning	123		School Savers		225
ERACISM Wear		247	Stokes Publishing Company		267-268
FROG Publications		235	Teacherwear	120	
Heinemann Publishers	151		Texas Instruments		221-223
Houghton Mifflin Harcourt	138-140		The Markerboard People		264-265
Industry Initiatives for Science and Math Education (IISME)		273	WestEd	116-117	
Instructional Images		272	Wholemovement		239
Intelli-Tunes		255-256	Xtreme Math		241
Kendall Hunt Publishing Co.	121-122		YMIR Inc./The Ultimate Puzzle		249
Key Curriculum Press	146-147				

Pacific Grove Middle School
Merrill Hall, Asilomar

Friday / 5:00 - 7:15 p.m.
Friday / 3:00 - 7:00 p.m.

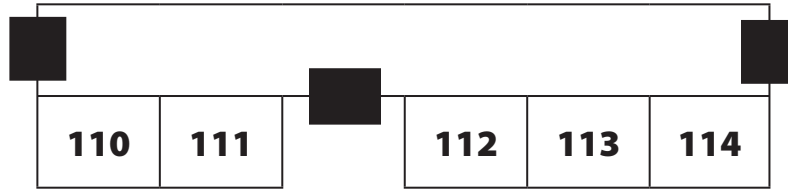
Saturday / 8:00 a.m. - 5:30 p.m.
Saturday / 8:00 a.m. - 4:00 p.m.

Exhibits close promptly at times listed above so visit early!

~ NAME BADGES ~

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

MERRILL HALL



161
109
108

ENTRANCE AND EXIT

107
106
105
104
103

ENTRANCE AND EXIT

102
101

131	132	133	134	135
136	137	138	139	140

141	142	143	144	145
146	147	148	149	150

151	152	153	154	155
156	157	158	159	160

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129	128	127	126
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125	

115
116
117

ENTRANCE AND EXIT

118
119
120
121
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ENTRANCE AND EXIT

123
124

PACIFIC GROVE MIDDLE SCHOOL

270	271	272	273	274	275	276
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EXIT &
LADIES ROOM

BUSES

ENTRANCE

209
208
207
206

219	229
218	228
217	227
216	226
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214	224
213	223
212	222
211	221

239	249
238	248
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233	243
232	242
231	241

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Due to construction this configuration may change.

EXIT &
MENS ROOM

262	263	264	265	266	267	268
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Mathematics Leadership at Work: Moving the Common Core State Standards from Vision to Action

2012 NCSM Summer Leadership Academy
Sponsored by the California Mathematics Council – Northern Section

For K-16 mathematics education leaders - teams and individuals

July 31 – August 1, 2012
Sonoma County Office of Education
5340 Skylane Blvd.
Santa Rosa, CA

The Leadership Academy Will Focus On:

- Implementation of the CCSS in your school, district, or region.
 - Using research-informed best practices in teaching and learning, as described by the eight CCSS Mathematical Practices Standards
 - Understanding and integrating the CCSS Content Standards including domains, learning trajectories, grade-level and course sequencing, and course design, scope, and sequence
 - Using formative assessment cycles for learning including how to develop meaningful assessment cycles using high-quality summative assessments; and discussion sessions regarding the SBAC and the PARCC Assessment Consortia
- Strategies to support specialists and coaches and their work with teachers around the CCSS.

Leadership Academy Features

- 8 hours of daily plenary and grade level breakouts-elementary, middle, and high school
- Rich and engaging content explicitly designed for mathematics education leaders
- Practical suggestions and specific next steps for site work
- Research-based strategies for getting results
- Materials, resources, and strategies to use in your setting
- Networking among leaders from other states and countries
- Continental breakfast and lunch each day of the Academy

Join us for the NCSM Summer Leadership Academy!

For more information visit www.mathedleadership.org/events/academy

California Mathematics Council - Northern Section

- Purpose** CMC-N wishes to encourage creativity and innovation among Northern California educators for the purpose of developing mathematically powerful students.
- Who** CMC-N members from any public or private school or district
- Qualifications**
- ✓ Must be current members
 - ✓ Can only apply once per school year
 - ✓ Should have additional sources of funding
 - ✓ Application completed in full
- Proposal**
1. Title Page, complete the form on page 44.
- Format**
2. Project Description
 - a. Project Goals—What will the project seek to accomplish?
 - b. Statement of need as related to your students.
 - c. Project activities and timeline.
 - d. Impact—Who and how many will be effected?
 - e. Evaluation/Dissemination Plan—How will you assess and then document the outcomes of the project? What plans do you have for sharing?
 3. Project Budget—provide an itemized budget listing support from other sources.
 4. Amount requested. Partial funding likely.

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

Send to:

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

MINI-GRANTS

Mini-Grants for CMC-N members are available for up to \$500 to encourage creativity and innovation among Northern California educators for the purpose of developing mathematically powerful students.

Deadline: January 31 and November 1 of next year.

For information and applications visit www.cmc-math.org/awards or contact FaraLee Wright at faralee.wright@sbcglobal.net

California Mathematics Council - Northern Section

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

Title of Grant _____

Name of Grant Leader: _____ CMC Member # _____

Home phone: () _____ Home e-mail: _____

School name: _____

School address: _____ Fax: _____

School e-mail: _____

The Grant will impact the following: Number of students: _____

Number of teachers: _____

Percent members of minorities: _____

Maximum amount requested to implement the grant: _____

Include the following information in your request:

Item(s) to be purchased:

Expected vendor and prices:

Short narrative about how these items will be used:

Grant requests may be only partially funded. Additional funding sources available to you.

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

Approval Signature:

Grant Leader _____

Building Site Administrator Name and Title _____

Send to:

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

SPECIFICS:

- ✓ Earn 1.5 quarter hours (= 1 sem hr) of college credit for your Asilomar participation.
- ✓ Credit is from CSU East Bay Extension Division. Generally it can not be applied toward a degree program, but can be used as:
 - professional growth units for your credential, and,
 - district credit for step advancement. Check with your district regarding its policy on accepting these units.
- ✓ Credit will be given in the Winter Quarter. Grades will not be available until April. Please do NOT call before that time. After February 1, you may send an e-mail to be sure your materials were received.
- ✓ Grades are CR/NC only.
- ✓ You must complete each of the requirements below.

REQUIREMENTS:

1. Register for the conference.
2. Register for credit/no credit by downloading the form at http://www.cmc-math.org/activities/north_conference.html. Complete the form on your computer. Then print, sign, and mail with credit card information or your check for \$145.00 (payable to CSU East Bay).
3. Attend the opening session Friday evening 7:30-9:00 p.m. at Pacific Grove Middle School Auditorium.
4. Attend at least three sessions on Saturday, visit either exhibit area, and attend a Sunday closing session.
5. Type a paper as described below. Save a tree: single spacing is fine. Include your name, address and phone number on it in case of problems.

PAPER:

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

REMEMBER:

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

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

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

Download form at
http://www.cmc-math.org/activities/north_conference.html

CAL STATE EAST BAY	CALIFORNIA STATE UNIVERSITY, EAST BAY <i>Division of Continuing and International Education</i>		
<small>CONTINUING EDUCATION</small>	<small>25200 Carlos Bee Blvd, WA 804 Hayward, CA 94542 Phone: 510.885.2605 Fax: 510.885.4817</small>		
www.csueastbay.edu			
Contract Credit Registration Form			
<small>To enroll for credit, please complete and return to instructor. Fees must be paid in full for enrollment to be valid. (Please print clearly.)</small>			
Student Information			
Last Name	First Name	Middle Initial	NetID/SSN
Street Address			Date of Birth
City	State	Zip	Country
Day Phone	Evening Phone	E-mail	
Employer		Employer Address	
City	State	Zip	Country
<small>Please sign and date below to verify for official University records that the above information is correct.</small>			
SIGNATURE: _____		DATE: _____	
Highest Level of Education: <input type="checkbox"/> High School Diploma/GED <input type="checkbox"/> Bachelor Degree <input type="checkbox"/> Master Degree <input type="checkbox"/> Female <input type="checkbox"/> Male			
<small>(REQUIRED - If no selection is made, transcript will default to an undergraduate record.)</small>			
<input type="checkbox"/> Some College <input type="checkbox"/> Associate Degree		<input type="checkbox"/> Master Degree <input type="checkbox"/> Doctorate Degree	
Ethnicity: <input type="checkbox"/> 1- American Indian/Alaskan Native <input type="checkbox"/> 2- Black, Non-Hispanic <input type="checkbox"/> 3- White, Non-Hispanic <input type="checkbox"/> 4- Hispanic American, Mexican, Chicano <input type="checkbox"/> 5- Central American <input type="checkbox"/> 6- South American <input type="checkbox"/> 7- Pacific Islander <input type="checkbox"/> 8- Other			
<input type="checkbox"/> 9- Other Hispanic/Spanish Origin <input type="checkbox"/> 10- Other			
<input type="checkbox"/> 11- Other			
Course Information Year: 2012 Quarter: <input type="checkbox"/> Fall <input checked="" type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer			
<small>Credit/No Credit Option: This course is credit/no credit (C/N/C) option only.</small>			
Department	Course No	Section	Course Title
Math	7024	11A	Calculus
Instructor	Units	Fee	C/N/C
Christine	1.50	\$145.00	Y
Total: \$145.00			
Payment Options: (Check one box) - NO REFUNDS ISSUED ON CONTRACT REGISTRATIONS			
<input type="checkbox"/> Personal Check/Money Order (Make Payable to CSUEB)		<input type="checkbox"/> Paid by Employer: Attach either Company/Agency Check or Employer Purchase Order. Employer attests information must be provided below.	
<input type="checkbox"/> Visa or MasterCard:		Request Date: _____	
PRINT Cardholder Name: _____		Cardholder Signature: _____	
<small>Office Use Only</small> Invoice Cash Check/MO: _____			

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, msheridan@nohum.k12.ca.us

Mt. Lassen Math Council (MLMC)

Chris Dell, cdell@shastacoe.org

Sonoma County Math Council (SCMC)

Ben Ford, ben.ford@sonoma.edu

Sacramento Area Math Educators (SAME)

Rita Johnson, rjohnson@csus.edu

Math Educators of Solano County (MESOC)

Genele Rhoads, grhoads@solano.edu

Alameda Contra Costa County Math Educators (AC³ME)

Elizabeth Brooking, esbrooking@yahoo.com

Contra Costa County Association of Science Math Education (C³ASME)

Connie Loosli, cloosli@wildlife-museum.org

Council Math & Science Educators San Mateo County (CMSESMC)

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

Santa Clara Valley Math Association (SCVMA)

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

Monterey Bay Counties Math Education (MBCME)

Linda Dilger, ldilger@monterey.k12.ca.us

Northern Nevada Mathematics Council (N²MC)

Denise Trakas-Wendt, denisewendt@gmail.com

San Francisco Math Teachers Association (SFMTA)

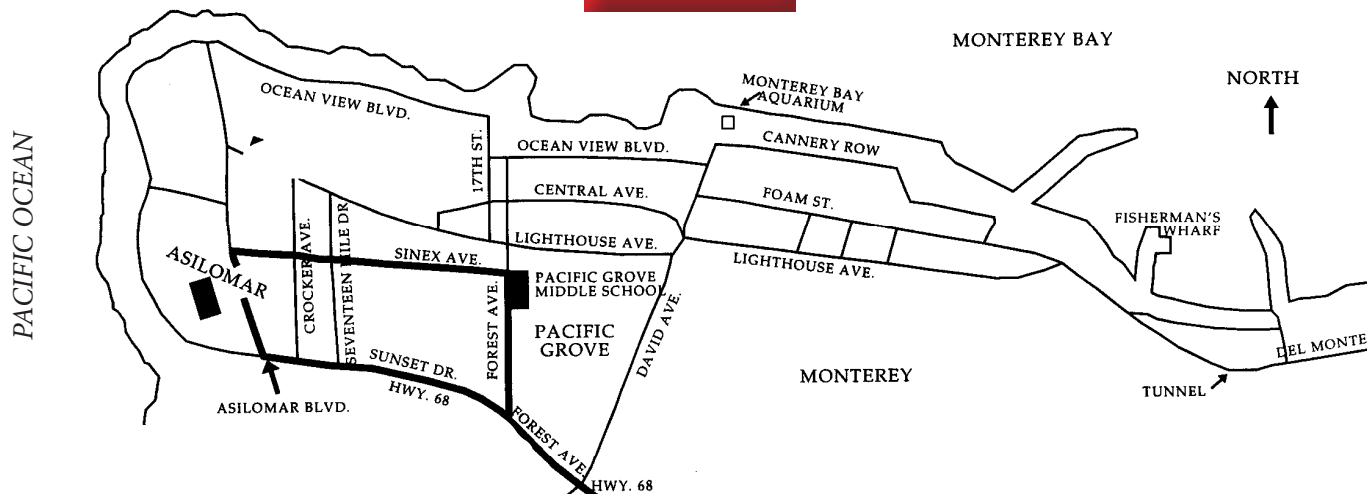
Jason Murphy-Thomas, murphy-thomasj@sfusd.edu

BUS SERVICE

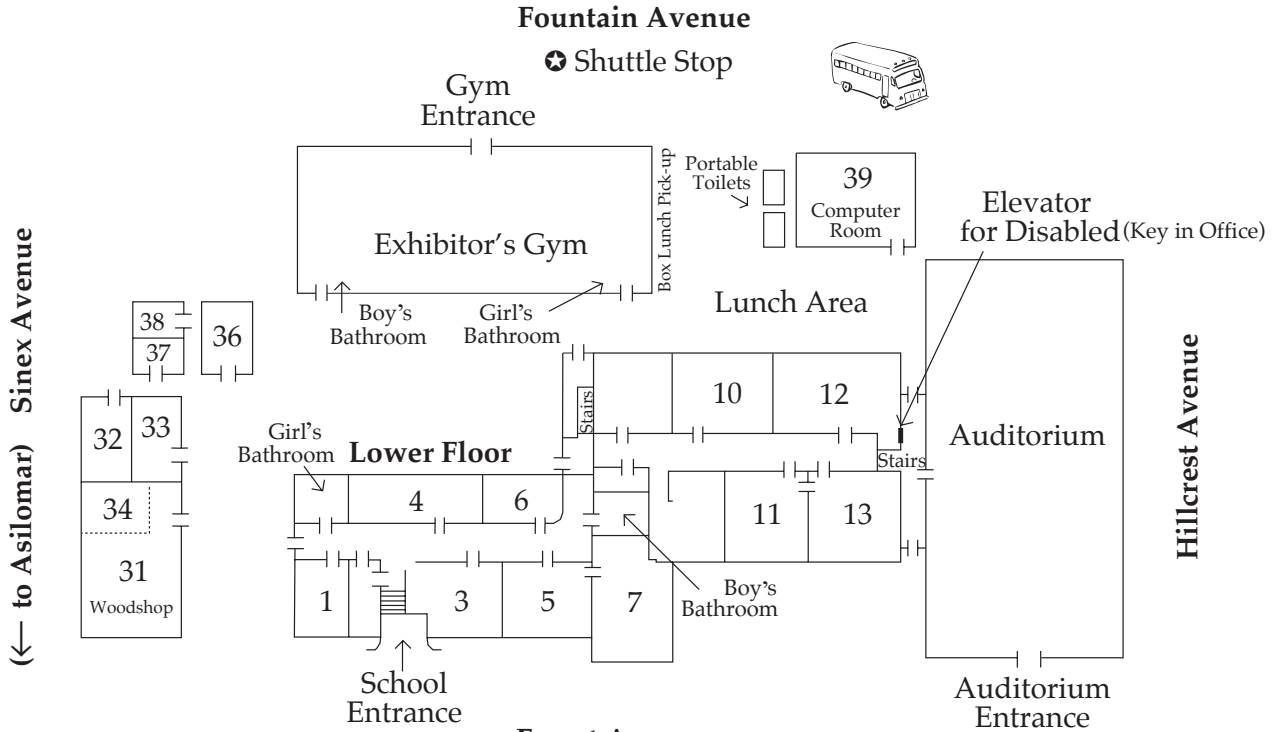


On Friday, bus service will run between the Asilomar grounds and Pacific Grove Middle School from 3:45-9:30 p.m. Buses will run between Asilomar and Pacific Grove Middle School all day Saturday.

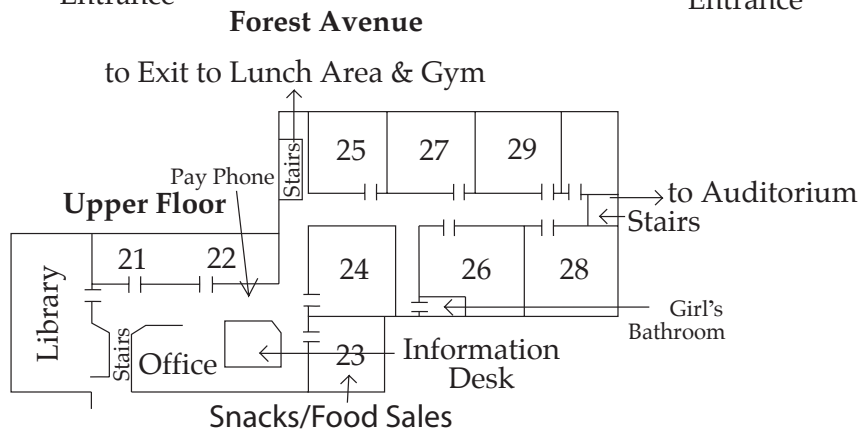
PACIFIC GROVE



PACIFIC GROVE MIDDLE SCHOOL



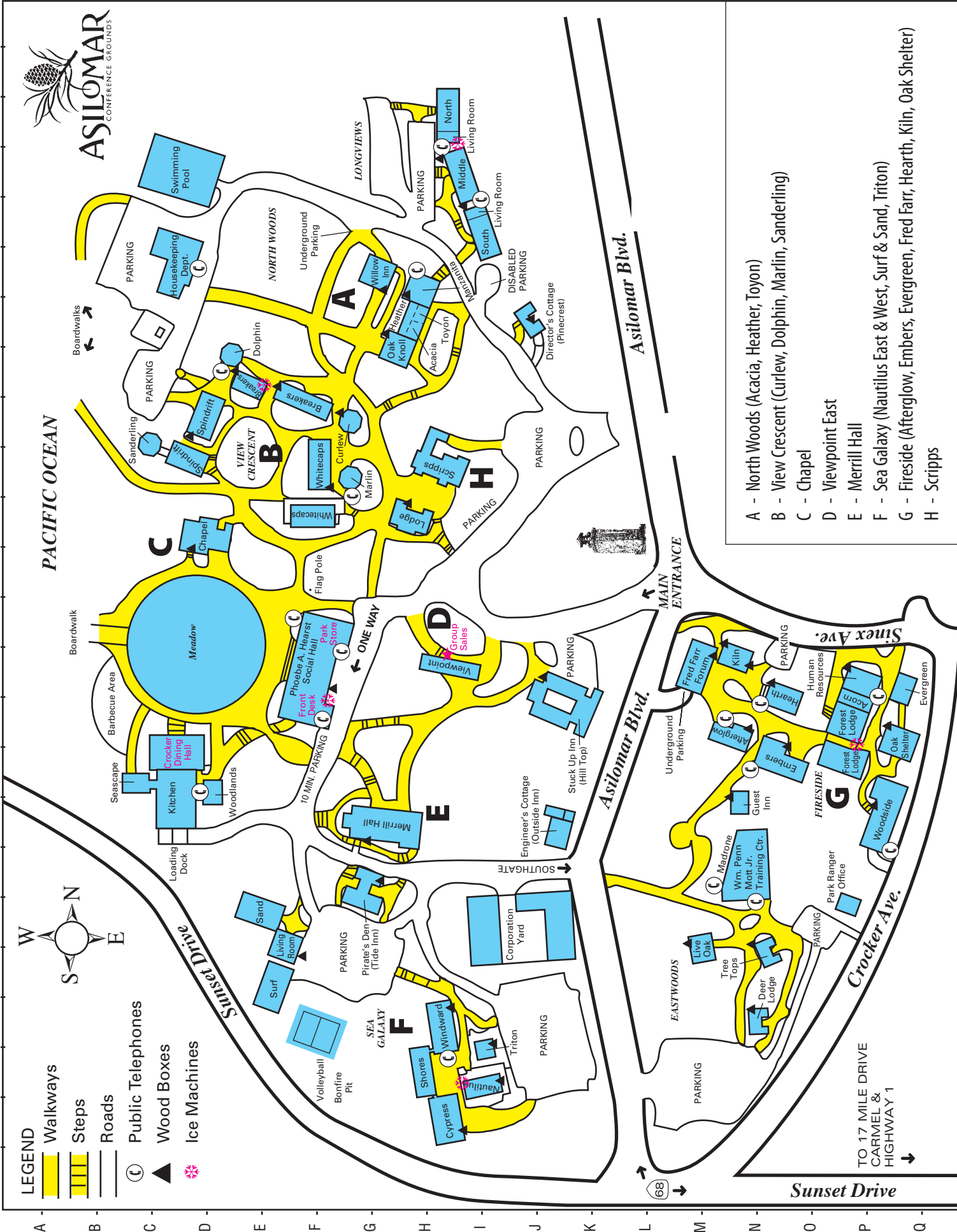
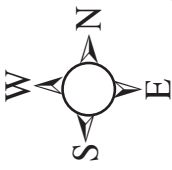
Please park on streets adjacent to the school.





1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

- LEGEND**
- Walkways
 - Steps
 - Roads
 - Public Telephones
 - Wood Boxes
 - Ice Machines



- A - North Woods (Acacia, Heather, Toyon)
- B - View Crescent (Curlew, Dolphin, Marlin, Sanderling)
- C - Chapel
- D - Viewpoint East
- E - Merrill Hall
- F - Sea Galaxy (Nautilus East & West, Surf & Sand, Triton)
- G - Fireside (Afterglow, Embers, Evergreen, Fred Farr, Hearth, Kiln, Oak Shelter)
- H - Scripps

Sunset Drive

TO 17 MILE DRIVE
CARMEL &
HIGHWAY 1

68

Crocker Ave.

Asilomar Blvd.

Asilomar Blvd.

Sinex Ave.

Asilomar Blvd.

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