2012
$s_{e e} \mathrm{~V} / \mathrm{a} / \mathrm{lrab} / \mathrm{e}$ beginalish
oganing REGIONAL CONFERENCE \& EXPOSITION October 10-12 Dallas, TX building

# Become the Math Teacher You Always Wanted to Be 




## Learning to Support Young Mathematicians at Work

An Early Algebra Resource for Professional Development

Catherine Twomey Fosnot and her colleagues offer interactive tools to help teachers deepen their algebraic thinking within a unique digital environment. Two DVDs feature classroom sessions that show students exploring the sequence of investigations and activities found in the popular Contexts for Learning Mathematics algebra unit books Trades, Jumps, and Stops and The California Frog-Jumping Contest.

[^0]
## Minds on Mathematics Using Math Workshop to Develop Deep Understanding in Grades 4-8

Wendy Ward Hoffer shows how to make the math workshop model come to life in your classroom, explaining the core elements and then providing detailed strategies for implementing a workshop structure. Her"minds-on" math workshop packs a powerhouse of benefits:

- setting the stage for students' deep mathematical thinking and understanding
- building up students' 21 st century skills and strategies
- providing an ideal forum for teaching the Common Core Standards for Mathematical Practice
- developing self-confidence and mathematical competence in every learner.

Grades 4-8/978-0-325-04434-7/2012 / 208pp / \$22.00

## SENSIBLE



STETMLEnwam
-
Sensible Mathematics
A Guide for School Leaders in the Era of Common Core State Standards

Second Edition
Bestselling author Steve Leinwand raises a call to arms for positive, realistic changes that will ensure successful implementation of the CCSS for Mathematics. Turn the vision of the Common Core into actual practice with Sensible Mathematics.

Grades K-12/978-0-325-04382-1/2012/144pp/\$22.00

Save 30\% on all professional books at the Heinemann booth!

## N Regional Conference \&Exposition

October 10-12
Dallas, Texas

## HOSTS

Texas Council of Teachers of Mathematics
Texas Association of Supervisors of Mathematics

## MEETING FACILITIES

All Regional Conference presentations will be held at the Dallas Convention Center. See pages 65-67 for floor plans.

## REGISTRATION AREA

Wednesday
Thursday
Friday

## EXHIBITS

Thursday
Friday

## BOOKSTORE AND MEMBER SHOWCASE

| Wednesday | 5:00 p.m. $-7: 00$ p.m. |
| :--- | :--- |
| Thursday | 7:00 a.m. $-5: 00$ p.m. |
| Friday | 8:00 a.m. $-4: 00$ p.m. |

ay

Friday

$$
\begin{aligned}
& \text { 8:00 a.m. }- \text { 5:00 p.m. } \\
& \text { 8:00 a.m. }- \text { 4:00 p.m. }
\end{aligned}
$$

$$
\begin{aligned}
& \text { 5:00 p.m. }- \text { 8:00 p.m. } \\
& \text { 7:00 a.m. }- \text { 3:00 p.m. } \\
& \text { 7:00 a.m. }- \text { 3:00 p.m. }
\end{aligned}
$$

## CONTENTS

Advertisers Guide ..... 72
Coupons ..... 73
Affiliates ..... 62
Bookstore ..... 5
Certificate of Attendance ..... 59
Committees ..... 64
Directory and Special Locations ..... 65
Exhibits ..... 6
Directory ..... 68
Exhibit Hall Floor Plan. ..... 67
Exhibitor Workshops ..... 6
First Aid ..... 5
Floor Plans ..... 65-66
Focus of the Year .....  3
General Information ..... 5
Information Booth ..... 5
Internet Station ..... 6
Math-a-Rama ..... 7
Member Showcase. ..... 5
Membership Application ..... 61
NCTM Officers ..... 64
Program Information ..... 3
Opening Session ..... 10
Thursday Presentations ..... 11
Friday Presentations ..... 35
Learn $\leftrightarrow$ Reflect Strand .....  3
New and Preservice Teachers Workshop .....  3
New Member and First Timers' Orientation. .....  3
Program Updates ..... 4
Types of Presentations. ..... 4
Registration and Access to Presentations ..... 4
Speaker Index ..... 71
Sponsors. ..... 6
Technology at Your Fingertips ..... 6

The publications and programs of the National Council of Teachers of Mathematics present a variety of viewpoints. The content, affiliations, and views expressed or implied in this publication, unless otherwise noted, should not be interpreted as official positions of the Council. References to particular commercial products by a speaker should not be construed as an NCTM endorsement of said product(s). NCTM reserves the right to change speakers, change facilities, or modify program content.

Some speakers on this program have elected to print their e-mail addresses as a means for individual correspondence with conference attendees. Unsolicited commercial e-mail or unsolicited bulk e-mail, whether or not that e-mail is commercial in nature, is expressly prohibited. Any use of e-mail addresses beyond personal correspondence is not authorized by NCTM.

National Council of Teachers of Mathematics, 1906 Association Drive, Reston, VA 20191-1502; Telephone (703) 620-9840; Fax (703) 4762970; E-mail nctm@nctm.org; Web www.nctm.org

## Howdy and Welcome to Dallas!

The Program and Volunteer committees welcome you to the NCTM Regional Conference in Dallas, Texas. Classroom teachers, mathematics educators, supervisors, curriculum specialists, mathematics education researchers, and college instructors have all assembled to learn mathematics, visit with colleagues, and enjoy the city.

If you are attending your first NCTM conference, you are in for a treat. You will learn effective teaching strategies, experience handson activities, and listen to exciting speakers who will inspire you to become better teachers. Whether attending sessions, visiting the exhibit hall, or talking in the halls and socializing, you will meet new colleagues and build lifelong friendships. For the "experienced" conference attendees-there are always changes in mathematics curriculum, technology, and strategies that benefit classroom learning. Of particular interest will be sessions throughout the program on the Common Core State Standards for Mathematics. Kindergarten through grade 5 teachers can participate in a highlight of the conference and a Texas tradition: MATH-A-RAMA.

After a day of inspiring sessions, we hope you will enjoy all that the city of Dallas has to offer. The famous Dealey Plaza is just steps away and home to the JFK exhibit at the Sixth Floor Museum. Less than a mile from the Convention Center are exciting venues such as the Dallas World Aquarium, House of Blues, and the flagship Neiman Marcus department store, as well as the Dallas Arts District, where you can visit the Winspear Opera House, the Wyly Theatre, Dallas Museum of Art, or take a stroll in the Nasher Sculpture Center gardens. Hungry? Enjoy a corn dog and other fried foods by taking a short ride on the DART train to the State Fair of Texas, or catch a free vintage trolley to visit the trendy restaurants and shopping in the Uptown area. Then get reenergized for tomorrow's sessions by winding down with a rotating view of Dallas at Wolfgang Puck's Five Sixty restaurant, 560 feet in the air atop Reunion Tower.

On behalf of the conference Program and Volunteer committees who have worked long, countless hours over the past two years to put together this conference, thank you for joining us in Dallas. We hope you go back to school feeling renewed, better educated, and ready for an amazing school year.


Kathleen Mittag Program Committee Chair The University of Texas at San Antonio


Whitney Evans Volunteer Committee Chair Plano Independent School District

## Program Information

The 2012 NCTM Regional Conference and Exposition officially begins with the Opening Session featuring Scott Flansburg, the Human Calculator, at 5:30 p.m. on Wednesday. All other presentation days start at 8:00 a.m. and are scheduled concurrently throughout the day on Thursday and Friday.

We have made every attempt to provide adequate seating for participants at the Regional Conference and Exposition. The room capacity for each presentation is listed on all meeting room signs. For your safety and because of fire regulations, only those with seats will be allowed to stay in meeting rooms.

Please remember:

- All meeting rooms will be cleared between presentations.
- All seats are available on a first-come, first-served basis.
- Reserving spaces in line or saving seats is not permitted.
- In compliance with fire codes, sitting on the floor or standing is not permitted.
- As a courtesy to the speakers and your colleagues, please silence your cell phone during all presentations.


## Professional Development <br> Focus of the Year 2012-2013

This year's Focus of the Year is Reasoning and Proof: Is It True?
Convince Me! The conference will highlight this theme as the topic of Thursday's Learn $\leftrightarrow$ Reflect strand, as well as in many other NCTM activities throughout the year. For more information, visit
www.nctm.org/focus.

## Learn $\leftrightarrow$ Reflect Strand <br> REASONING AND PROOF: IS IT TRUE? CONVINCE ME! THURSDAY, OCTOBER 11

Plan one full day for the Focus of the Year topic, Reasoning and
Proof: Is It True? Convince Me! The strand begins with a morning Kickoff session and concludes with an end-of-the-day Reflection session. In between, you choose from among a number of sessions exploring the topic, all marked with the symbol LOR. Immerse yourself in the topic, and collaborate with leaders and colleagues. We ask participants to reflect on the following questions throughout the Learn $\leftrightarrow$ Reflect strand and then discuss them at the end of the strand, during the Reflection session.

1. What role does reasoning and proof play in increasing the opportunities for communication to help students develop mathematical understanding?
2. How does stressing reasoning and proof influence your instructional decisions? In addition, how do your instructional decisions influence how reasoning and proof should be stressed?
3. How does reasoning and proof drive the lifelong learning of significant mathematics to all students? How are equity and diversity also promoted by stressing reasoning and proof?
4. How are you thinking differently about your use of reasoning and proof because of participating in the Learn $\leftrightarrow$ Reflect strand? What are some of the steps you plan to take to promote reasoning and proof in your classroom/school?

Learn $\leftrightarrow$ Reflect sessions are open for anyone to attend throughout the day. Participants who attend the Kickoff session, at least one Learn $\leftrightarrow$ Reflect session during the day, and the final Reflection session will receive personalized certificates by mail.

Learn $\leftrightarrow$ Reflect Kickoff Session
Thursday, 9:30 a.m.
C Ballroom 1 \& 2 (Dallas Convention Center)
Learn $\leftrightarrow$ Reflect Reflection Session
Thursday, 3:30 p.m.
Room C141, 143 \& 149 (Dallas Convention Center)

## New and Preservice Teachers Workshop

Wondering how to manage your classroom, work with parents, find engaging lessons, and handle homework-all while keeping your sanity? You're not alone! A must for every new teacher, this interactive workshop is your chance to ask questions on topics of your choice. Plus, you will connect with other new and early-career teachers. If you are in the first five years of teaching or are seeking certification, come get resources, materials, and fun prizes to encourage you and give you insight along your journey.

Thursday and Friday
10:30 a.m.-Noon
C144 \& 145 (Dallas Convention Center)

## New Member and First Timers' Orientation

New to NCTM or a first-time attendee at a regional conference? Join us to learn how to maximize your membership experience! From journals, online lessons, tools, and activities to networking and career-advancement opportunities, you'll discover all that NCTM has to offer. Also, first-time attendees will learn how to make the most of their time at the conference.

Thursday and Friday
7:15 a.m.-7:45 a.m.
C Ballroom 3 (Dallas Convention Center)

## Program Information

## Math-a-Rama <br> OPERATIONS AND ALGEBRAIC REASONING

FRIDAY, OCTOBER 12
Now in its 20th year, Math-a-Rama was first organized by Dinah Chancellor and Dr. Janie Schielack for the Texas state math conference, CAMT, in 1993. The purpose of Math-a-Rama is to give elementary classroom teachers a forum in which to share exemplary math lessons with a specific content focus and modeling researchbased best practices in elementary mathematics. As a side benefit, teams of classroom teachers-working in a safe, protected environment—gain confidence and experience in designing and presenting a session for a major math conference-thus nurturing their growing feeling of responsibility to their colleagues and to their profession. See page 7 for Math-a-Rama team information.

8:30 a.m.-11:30 a.m.
Exhibit Hall C (Dallas Convention Center)

## Types of Presentations

All presentations are open to all conference participants. Admission is on a first-come, first-served basis. Reserving spaces in line or saving seats is not permitted.

Sessions ( 60 minutes) represent a common format where the speaker relates his or her ideas to an audience. The speaker may use audiovisual equipment, technology, and handouts, and he or she may include audience participation. Rooms are set theatre style and vary in size.

Gallery Workshops (90 minutes) have rooms set with round tables for hands-on work and additional gallery seating around the perimeter of the room. The gallery participants will receive the print materials and observe the workshop in a fashion similar to that of a classroom observer.

Exhibitor Workshops (60 minutes) are set theatre style for at least 70 people. Exhibitors showcase their products and services away from the Exhibit Hall. Look for the symbol CW, indicating exhibitor workshops, in the program book.

## Grade Bands

To assist attendees in finding appropriate presentations to attend, each presentation lists the presentation's target grade-band audience. The grade bands are:

[^1]- Higher Education-university- and college- level issues, including both two-year and four-year institutions
- Preservice and In-Service-content and techniques for providers of preservice teacher education, and professional development for practicing teachers, supervisors, specialists, coaches, and mathematics educators
- General Interest—applies to multiple grades and audiences


## Program Updates

Don't forget to pick up your copy of the Program Updates, which includes speaker and program updates, a complete exhibitor directory, and exhibitor workshop information. Program Updates are available in the Registration Area.

## Tips for a Rewarding Regional Conference and Exposition

- Access the Conference App for conference alerts and up to the minute information. Visit www.nctm.org/confapp.
- Access speaker handouts at www.nctm.org/plan.
- Become familiar with the layout of the Dallas Convention Center by reviewing the floor plans on pages 65-67.
- Visit the NCTM Bookstore for the latest NCTM educational resources, and the Member Showcase, where you can pick up free resources and learn more about how NCTM can help you professionally. Save 25 percent off all list-price items.
- Stop by the Information Booth for information on the local area.
- If attending the conference with colleagues, attend different presentations and share your learned knowledge after the conference.
- Wear comfortable shoes and clothes, and dress in layers.
- Turn off cell phones during presentations.
- Visit the Exhibit Hall, where exhibitors will share the latest educational products.
- The more you participate in the presentations, the more you will get out of the conference.
- Tell us about your conference experience by filling out the postconference online survey.
- Be safe! Remove your name badge when you leave the conference facilities at the end of the day.


## Registration and Access to Presentations

You must wear your badge to enter all presentations and the NCTM Exhibit Hall. Please be aware that the fee for a replacement badge is $\$ 5$.

By registering for the 2012 NCTM Regional Conference and Exposition, participants grant NCTM the right to use, in promotional materials, their likeness or voice as recorded on, or transferred to, videotape, film, slides, audiotapes, or other media.

## General Information

## Recycling

Help NCTM Recycle—Finished with your Program Book, plastic name badge holders, or Program Updates? Place them in the specially marked containers for recycling, in the registration area.

## For Your Child's Safety

Because of the size and nature of the 2012 NCTM Regional Conference and Exposition, this event is not an appropriate setting for children under 16 years of age. Children under age 16 will not be permitted in the Exhibit Hall. We appreciate your understanding and cooperation. Children 16 years and over will need to register as nonteaching guests. To register a nonteaching guest, please visit the Registration Area.

## Member Showcase

Make sure to stop by the NCTM Member Showcase located in Exhibit Hall C of the Dallas Convention Center and let us help you learn more about how your NCTM membership provides you access to lessons, teaching tips and strategies, research findings, and more. You can take away classroom-ready activities, sample journals, and other materials that you can use immediately in the classroom.

Whether you are a new member, a current member, or thinking of joining, the NCTM Member Showcase is here to help make your job easier!

Renew your membership or join NCTM for the first time onsite and you will receive a free 2013 NCTM Annual Meeting t-shirt! Supplies are limited.

## Bookstore

Wednesday
Thursday
Friday

$$
\begin{aligned}
& \text { 5:00 p.m. }- \text { 7:00 p.m. } \\
& \text { 7:00 a.m. }- \text { 5:00 p.m. } \\
& \text { 8:00 a.m. }- \text { 4:00 p.m. }
\end{aligned}
$$

Save 25 percent off the list price on all purchases made at the NCTM Bookstore in Exhibit Hall C of the Dallas Convention Center. Check out our newest titles and best sellers and find NCTM gear for yourself, and friends and family at home. Spreading the word about the importance of math has never been easier. Start your wish list today by previewing NCTM's wealth of resources at

## www.nctm.org/catalog.

Note on Sales Tax Exemptions: To be considered exempt from sales tax in the NCTM Bookstore, you must provide a copy of a Texas tax exemption certificate at the time of purchase. NCTM is required by law to keep a copy of the certificate, so we cannot return it to you. To qualify, you must make payment with a purchase order, check, or credit card from the school to which the Texas Exemption

Certificate is issued. We cannot accept personal checks, personal credit cards, or cash in conjunction with tax exemption certificates. Tax exemption certificates for states other than Texas are not valid for this regional conference.

The NCTM Bookstore is not equipped to handle shipping from the meeting site. The Business Center at the convention center can assist you with your shipping needs.

## Free Wi-Fi Zones

Attendees with Wi-Fi-compliant devices are provided with fast and seamless connection in public spaces (food courts, concourses, Starbucks, and common areas) inside the convention center at no cost. Fee-based Wi-Fi access is available through Smart City Networks in all session rooms and halls.

## Information Booth

The NCTM Information Booth will be in the lobby area outside Exhibit Hall C. Personnel from the area will staff the booth and can answer any questions you may have about Dallas. They will also assist you with directions and local information, from transportation and historical sites to shopping and entertainment.

## Lost-and-Found

You may retrieve or turn in lost-and-found items at the NCTM Information Booth. Unclaimed items will be turned over to Convention Center Security.

## First Aid Station

There will be a first-aid station at the Dallas Convention Center during the NCTM conference. If you need medical services while in Dallas please check with the hotel concierge for the closest medical facilities.

## NCTM Clear Air Act

In accordance with a resolution of the 1978 Delegate Assembly, smoking is permitted only in designated areas.

## Your Opinion Counts!

Thank you for attending the 2012 NCTM Regional Conference and Exposition. In the days following the conference, you will receive an e-mail asking for an evaluation of your meeting experience. Please take a moment to complete the survey. Your feedback is important to us and will be instrumental in the future Regional Conference and Exposition planning process.

## Exhibit Hall Information

## Exhibits

Be sure to make time in your schedule to visit the NCTM Exhibit Hall. The hours allow ample opportunity to explore, try out, and purchase products and services for use in your classroom, or to help you meet your career goals. You'll also be able to meet the people who produce these products, get fresh ideas, and see demonstrations of how products work. Be sure to check out the list of exhibitors and a map of the Exhibit Hall on page 67. Please note: Children under age 16 will not be permitted in the Exhibit Hall.

## Exhibitor Workshops

Do you want more in-depth, personal interaction with exhibitors? If so, plan to attend the Exhibitor Workshops. These workshops will occur on Thursday and Friday, and they will offer a wide variety of topics. For exhibitor workshop offerings, look for presentations in this program book marked with the symbol CW or see the Program Updates.

## Internet Station

Need to check e-mail or want to surf the Web? Stop by the NCTM Internet Station located in the registration area.

## Conference Sponsors

A special thank-you goes to our sponsor, Texas Instruments, for providing our volunteer t-shirts. Please stop by their booth when you are in the Exhibit Hall.

Your Passion. Our Technology. Student Success."'

## Technology at Your Fingertips

## Conference App

The NCTM conference app for iPhones and iPads, also available with a mobile web app for Androids, Windows Mobile, and BlackBerries, keeps you connected with the Regional Conference's every aspect. The free app allows you to search sessions, speakers, and exhibits; view the Exhibit Hall floor plan; highlight your favorite presentations; get a Twitter feed update (official Twitter hashtag \#nctm12); and rate presentations. Stay up to date with the latest program changes. Visit www.nctm.org/confapp for more information.

## NEW! Presentation Handouts

This year, attendees can access available electronic presentation handouts through the conference app, and online planner.

## Online Planner

The online planner is a great way for you to search the conference program book, set up your personal schedule, and download available presentation handouts. The online planner is up to date with the latest program changes and presentation information. Visit www.nctm.org/plan to check it out.

## All Year Long

When you return home, don't forget to download NCTM's Android or iPhone app for free. The NCTM app gives users easy, efficient access to timely NCTM information throughout the year-from updates on new publications and best sellers to the latest information on upcoming conferences and professional development opportunities. Users can be up to the minute on NCTM activities, teaching tips, and classroom resources. The new app also includes Facebook and Twitter feed updates. Visit www.nctm.org/nctmmobile for more information and to download the app.

Pick up your copy of the
Program Updates for more exhibitor workshops, the latest changes to the program schedule

## Math-a-Rama

## Focus Topic: Operations and Algebraic Reasoning

Friday, October 12
8:30 a.m.-11:30 a.m.
Elementary teachers $(\mathrm{K}-5)$ have the opportunity to attend six different sessions, for a total of 18 Math-a-Rama sessions between 8:30 a.m. and 11:30 a.m. The theme for all the sessions is Operations and Algebraic Reasoning. Each 25 -minute session will be repeated throughout the morning so that a participant may attend all six sessions in any order. Participants who do not want to attend every Math-a-Rama session may enter and leave Math-a-Rama during the 5-minute breaks between sessions.

| TEAM | NAMES | DISTRICT | CONTEXT | LESSON TITLE |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Michelle Cain <br> Marian Martin <br> Ashley Hollar | Krum Independent School District | Graphing | "Primary Pockets" |
| 2 | Carrie Jostmeyer <br> Michele Pool <br> Bethany Jones | Frisco Independent School District | Digits in Phone Number | "Call Me!" |
| 3 | Katie Kennedy <br> Denise Danby <br> Elizabeth Hoult | Coppell Independent School District | Meaning of the Equals Sign | "Party Equals Fun" |
| 4 | Lesa Haney <br> Kellee Stephens <br> Christy Van Scoyoc | Lewisville Independent School District | Composing and Decomposing Numbers | "Let Me Count the Ways" |
| 5 | Kim Dumaine Shannon Ivey Michele Niece | Allen Independent School District | Graphing | "Feet, Feet and More Feet" |
| 6 | Jennifer King <br> Mary Stewart <br> Holly Grance | Frisco Independent School District | Area | "Hip to Be Square" |

Conference attendees receive a $25 \%$ discount off the NCTM list price on all purchases made in the Bookstore.*

## NEW FALL 2012 BOOKS



NEW
Curriculum Issues
in an Era of Common Cores State Standards for Mathematics
By Christian Hirsch
Stock \# 14319
List Price: \$37.95
Conference Price: \$28.46


## NEW

NCTM Assessment Resources for the Professional Learning Community: A Practical Guide
By Anne Collins
Stock \# 14093
List Price: \$20.95
Conference Price: \$15.71

Just Published by Frances Stern Adding Math, Subtracting Tension: Grades 3-5
By Frances Stern
Stock \# 13799
SAVE 25\% on this and all books!
Also by Frances Stern


> mor

Adding Math, Subtracting Tension: A Guide to Raising Children Who Can Do Math—Prekindergarten-Grade 2 Stock \# 13786
List Price: \$26.95 | Conference Price: \$20.21

Visit the NCTM Bookstore in the Exhibit Hall to see these and other titles and products on display.
Bookstore \& Membership Showcase Hours: Wednesday 5:00 pm - 7:00 pm Thursday 7:00 am - 5:00 pm Friday 8:00 am - 4:00 pm
*Conference discount not valid on sale items.

## MORE NEW TITLES



## MATHEMATICS BOOKS BY AND FOR MATHEMATICS EDUCATORS

Administrator's Guide: How to Interpret the Common Core State Standards to Improve Mathematics Education

 By Matt Larson

Stock \# 14288
List Price: $\$ 23.95$ | Conference Price: \$17.96
Reasoning and Sense-Making Problems and Activities for Grades 5-8
Edited by Elizabeth D. Phillips and Judith S. Zawojewski
Stock \# 13497 List Price: \$37.95 Conference Price: \$28.46


Last Title in Series!
Focus in High School Mathematics:
Technology to Support Reasoning and Sense Making
By Thomas P. Dick and Karen Hollebrands
Stock \# 14287 moreu List Price: \$32.95 Conference Price: \$24.71


Books with More4U logo have additional resources online. Look inside book for access code.

wwwonctm.orgmorequ

NEW PRODUCTS! SAVE 25\% on these and alI NCTM Products at the NCTM Bookstore. Show the world your love of math with these fun new products!


Navy DO MATH
T-shirt
In five sizes, $5-X X L$ List Price: \$16.95 Conference Price: $\$ 12.71$


DO MATH Lunch Tote
Stock \# 14393
List Price: \$6.95
Conference Price: \$5.21

## Wednesday Planner

5:00
5:30
6:00
6:30
7:00

## HIGHLIGHTS

Opening Session (Presentation 1): Master Everyday Math in Seconds with the Human Calculator


## REGISTRATION HOURS

5:00 p.m.-8:00 p.m.

## BOOKSTORE AND MEMBER SHOWCASE HOURS

5:00 p.m.-7:00 p.m.

## FIRE CODES

We have made every attempt to provide adequate seating for participants at the conference, but for your safety and because of fire regulations, only those with seats will be allowed in meeting rooms. To comply with fire codes, we will have to ask persons sitting on the floor or standing to leave the room.


## 1 <br> Master Everyday Math in Seconds with the Human Calculator

## Opening Session

Scott Flansburg, the human calculator and Guinness World Record Holder, demonstrates his amazing math talent, adding, subtracting, dividing, and even doing square roots all in his head faster than a calculator. Scott shows you how to help your students not to live in fear of math any longer and how math can be fun.

## Scott Flansburg

 Global Ambassador, World Math Day and Mathletics, New York, New YorkC BALLROOM 1, 2 \& 3 (DALLAS CONVENTION CENTER)

Looking for Tools and Activities for the Classroom? Need Ideas to Make Your Job Easier?

## Stop by the NCTM Member Showcase On Site!

We've got time saving tips and resources to help you meet the challenges you face on a daily-basis. Stop by to pick up.

- Classroom-ready Activity Sheets
- Sample journals
- Free math resources, giveaways, and more!

Not a member or want to learn more about membership? Don't worry; we can help you there too! Plus, when you join or renew onsite, you'll receive a free $t$-shirt.

Stop by...
Wed. 5:00 p.m. - 7:00 p.m.
Thurs. 7:00 a.m. - 5:00 p.m.
Fri. 8:00 a.m. - 4:00 p.m.

NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS

## Thursday Planner

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30
Noon
12:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00
LOR Learn $\leftrightarrow$ Reflect Strand
EW Exhibitor Workshop

## HIGHLIGHTS

New Members and First Timers' Orientation (Presentation 2)
Learn $\leftrightarrow$ Reflect Kickoff Session (Presentation 27)
New and Preservice Teachers Workshop (Presentation 48)
Learn $\leftrightarrow$ Reflect Reflection Session (Presentation 106)

## REGISTRATION HOURS EXHIBIT HOURS

7:00 a.m.-3:00 p.m.
8:00 a.m.-5:00 p.m.

## BOOKSTORE AND MEMBER SHOWCASE HOURS <br> 7:00 a.m.-5:00 p.m.

## FIRE CODES

We have made every attempt to provide adequate seating for participants at the conference, but for your safety and because of fire regulations, only those with seats will be allowed in meeting rooms. To comply with fire codes, we will have to ask persons sitting on the floor or standing to leave the room.

## 7:15 A.M.-7:45 A.M.

## 2 <br> New Members and First Timers' Orientation

(General Interest) Session
New to NCTM? Join us to learn how to maximize your membership experience. From journals and online lessons, tools, and activities, to networking and career-advancement opportunities, you'll discover all that NCTM has to offer you. Also, learn how to make the most of your time at the conference.

Don Balka
Didax Educational Resources, Rowley, Massachusetts
Carol Edwards
Chandler-Gilbert Community College, Arizona
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 8:00 A.M.-9:00 A.M.

## 3 <br> Formative Assessment in a Summative Assessment Common Core State Standards World <br> (General Interest) Session

This motivational and interactive session will provide a formative assessment research-affirmed feedback model for raising student achievement, creating fidelity to student grades, and understanding how to use assessment as a student motivational tool. Bring your cell phones so you can vote.

Timothy Kanold
$\mathrm{E}^{2}$-PLC Learning Group, Lincolnshire, Illinois
C BALLROOM $1 \& 2$ (DALLAS CONVENTION CENTER)

## 4 <br> Preparing Students for Common Core State Standards Assessments, College/Career Readiness

(General Interest) Session
This session offers an update on the evolving state assessment programs and likely impact. Proficient students will explain and apply mathematical concepts, perform procedures, frame and solve complex problems, construct viable arguments to support their reasoning, and analyze complex real-world scenarios by using mathematical models to interpret and solve problems.

## Henry Kepner

Past President, National Council of Teachers of Mathematics; University of Wisconsin-Milwaukee

D162 (DALLAS CONVENTION CENTER)

## 5

## Teaching Mathematics Vocabulary to K-2 Learners

(Pre-K-2) Session
Helping K-2 students acquire mathematics vocabulary is challenging. Come and learn ways to teach academic vocabulary through the 5E instructional model. Sample materials will be provided for all attendees.

## Kay Frantz

Consultant, Frisco, Texas
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 6 <br> How a Mathematician Invented Kindergarten

(Pre-K-5) Session
Gain new perspective on Friedrich Froebel's original "gifts" and methods used in the first kindergarten. Discover how Froebel's choice of geometrical and spatial education offered in the first kindergartens influenced the creative works of 20th-century artists and architects.

## Aniceta Skowron

Geometro, Ancaster, Canada
D174 (DALLAS CONVENTION CENTER)

## 7 <br> Math Workshop: Procedures That Work

(Pre-K-5) Session
Establishing a solid math workshop environment will ensure student achievement. With students actively engaged in independent and cooperative activities, and working with technology and manipulatives, the classroom teacher has the opportunity to instruct small groups in differentiated Guided Math sessions. Working this smart was never so simple.

## Jennifer Lempp

Fairfax County Public Schools, Springfield, Virginia
D220 \& 227 (DALLAS CONVENTION CENTER)

## 8

## A Line in the Sand: Geometry and Texas History

(3-5) Session
This presentation will discuss developing a middle school thematic unit in geometry, related to Texas history and the Spanish missions and that used GeoGebra to help students develop geometry and measurement concepts.

## James Telese

University of Texas, Brownsville, Texas
Mario Aguilar
Brownsville Independent School District, Texas
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 9 <br> Deepening Literature and Math Connections

(3-5, Preservice and In-Service) Session
Extend your vision of integrating reading and math. Learn time-efficient planning strategies from an elementary school teacher who believes the connections we make between math and literature need to go deeper than basic lessons using maththemed literature. Read-alouds and guided reading group work can spark engaging, high-level math lessons.

## Shannon Houghton

Wildwood Elementary School, Federal Way, Washington
C146 (DALLAS CONVENTION CENTER)

## 10

## If They Can't Read the Test, They Can't Pass It

## (6-8, Research) Session

We will explore vocabulary instructional strategies for at-risk students through the lens of language supports suggested for English language learners. Participants will learn multiple instructional strategies to take home and try. I will also share results from a pilot study exploring this phenomenon.

## Shere Salinas

Corpus Christi Independent School District, Texas
C142 (DALLAS CONVENTION CENTER)

## 11 <br> Conceptualizing Procedural Problems in Mathematics

## (6-12) Session

In today's world, students are required not only to memorize but also to understand conceptually procedural problems given. In sharing this study on how sixteen at-risk secondary students' depth of procedural knowledge increased through the use of metacognitive technology, we hope to help teachers enhance their own students' mastery of procedural problems.

Vicki-Lynn Holmes
Hope College, Holland, Michigan
Emily Rowland
Hope College, Holland, Michigan
D165 (DALLAS CONVENTION CENTER)

## 12

## ZooTistics:

## Cross-Curricular AP Statistics and AP Environmental Science

(9-12) Session

Are your students taking more than one AP course? Are you anxious to find how to reinforce making statistical inferences while analyzing structures and functions of living systems? This session shows how to integrate AP Environmental Science and AP Statistics into one fabulous cumulative project along with incorporating a trip to the zoo.

Katrina Stanfield
Newton County School System, Georgia
Natasha Rachell
DeKalb County School System, Georgia
C155 (DALLAS CONVENTION CENTER)

## 13

## Where Is the Math in a Mine?

(9-12, Preservice and In-Service) Session
This session will share materials developed during summer work shops that allowed participants to examine workplace skills and practical applications of industrial processes to the high school mathematics classroom. Specifically, we will share problems that model the process of locating lignite deposits and the process of environmental reclamation.

## Dana Franz

Mississippi State University
Rebecca Robichaux
Mississippi State University
Sandra Harpole
Mississippi State University
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 8:30 A.M.-9:30 A.M.

## ew <br> 13.1

enVisionMATH Common Core: What Does Teaching through Mathematical Practice Look Like?
(K-6) Exhibitor Workshop
Through activities in this workshop, participants will develop an understanding of each of the Standards for Mathematical Practice and see how various types of learning tasks and questioning strategies can engage students in order to develop understanding and proficiency in mathematics.

## Pearson

Upper Saddle River, New Jersey
ROOM D168 (DALLAS CONVENTION CENTER)

## 8:30 A.M.-10:00 A.M.

## 14 <br> Graphically Speaking: <br> Data Explorations in Primary School Classrooms

(Pre-K-2) Gallery Workshop
This hands-on workshop will address the Common Core State Standards for grades K-2 data: collection and organization, display and representation, and description and interpretation. All explorations will use children's literature as a conceptual or contextual springboard. A handout of all explorations along with a bibliography will be available.

Ellen Grace
Consultant, Albuquerque, New Mexico

## 15

## Why Subitize and Use Number Lines

 in the Early Years?(Pre-K-2) Gallery Workshop
Subitizing enhances young children's ability to think and reason mathematically. Subitizing is crucial in learning a large part of the primary school curriculum and affects the later elementary school years. Having a collection of rich subitizing activities would benefit students' learning. Linear and open number lines also enhance students' number sense.

## Darlene Kusick

Chinooks Edge School Division \#73, Innisfail, Canada
C144 \& 145 (DALLAS CONVENTION CENTER)

## 16

# Yabba-Dabba Do-Subitizing, Composition, and Decomposition: Bedrocks of Numeracy 

(Pre-K-2) Gallery Workshop
Engage in activities and discourse selected to deepen essential understanding of subitizing, composition, and decomposition of numbers. I will share Common Core State Standards-based activities that you can incorporate into the classroom to facilitate connections among quantity, representation, and symbols.

Marti Kuntz<br>Educational Resources Group, Charleston, South Carolina

D170 \& 172 (DALLAS CONVENTION CENTER)

## 17 <br> Promote Common Core State Standards Mathematical Practices by Integrating Instructional Technology

(3-5) Gallery Workshop
Experience learning in a classroom that uses instructional technology to promote mathematical practices and build conceptual understanding around topics traditionally taught through rote, procedural approaches. Connect symbolic and verbal representations to interactive visual models. Participants will receive software and instructional strategies.

Erich Zeller
MIND Research Institute, Santa Ana, California

## 18 <br> Teaching Fractions in the Common Core State Standards <br> (3-5) Gallery Workshop <br> Learn how fraction manipulatives can help integrate the Common Core State Standards fractions content standards with the mathematical practices, to strengthen students' understanding. This presentation will model a variety of fraction manipulatives, including some related to number lines.

## Sara Moore

ETA/Cuisenaire, Vernon Hills, Illinois

## 19 <br> Using Manipulatives and Singapore Math Strategies in Intermediate School Classrooms

(3-5) Gallery Workshop
Fractions, decimals, percentages, and word problems are difficult for many students. Exploring these topics through the use of manipulatives and pictures allows intermediate school students to gain conceptual understanding. Appealing to visual and kinesthetic learners, in addition to increasing student engagement, benefits all students.

Tricia Salerno
SMARTTraining, LLC, Phoenix, Arizona
C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 20 <br> Exploring Fraction Division: Why We Flip and Multiply

(3-8) Gallery Workshop
Ours is not to reason why, just invert and multiply. Explore fraction division through hands-on activities and problem-solving tasks that connect whole-number division to fractions by using the measurement model. The activities will offer ideas that build conceptual understanding of fraction division, not just procedural skills.

## Mary Swarthout

Sam Houston State University, Huntsville, Texas
Valerie Sharon
Sam Houston State University, Huntsville, Texas
D167 (DALLAS CONVENTION CENTER)

## 21 <br> Proportional Reasoning: <br> Transitioning from Additive to Multiplicative Thinking

(6-8, Preservice and In-Service) Gallery Workshop Engage in a variety of activities that will facilitate the development of proportional reasoning in the middle school setting. The real-world activities will also promote both the NCTM Process Standards and the Standards for Mathematical Practice as defined in the Common Core State Standards for Mathematics.

## Rebecca Robichaux

Mississippi State University

## Paulette Rodrigue

Nicholls State University, Thibodaux, Louisiana

## 22 <br> Activities to Reach the Lower 50 Percent of Algebra Students

(6-12) Gallery Workshop
Looking for methods and activities that will engage and reach the reluctant learner? If so, this workshop is for you. Receive several activities that will engage your students as they learn difficult algebraic concepts such as solving equations, writing linear equations from data, systems of equations, and others.

## Thomas Strauss

Fond du Lac School District (Retired), Wisconsin
Paul Weisse
Appleton East High School, Wisconsin
D171 \& 173 (DALLAS CONVENTION CENTER)

## 23

## A Multisensory Approach to

 Reasoning, Logic, and Proof(9-12) Gallery Workshop

The language and abstract concepts of geometric reasoning are challenging for many students, especially those with language and learning difficulties. Learn how to use multisensory strategies, structured language, and inexpensive manipulatives to present abstract geometric concepts, including logic, reasoning, proofs, and parallel lines and transversals.
Nadia Carrell
Multisensory Training Institute, Atlantic Seaboard Dyslexia Education Center, Rockville, Maryland

C BALLROOM 4 (DALLAS CONVENTION CENTER)

## 24 <br> Mathematical Modeling: What Does It Mean?

(9-12, Preservice and In-Service) Gallery Workshop Want to give your students an experience in mathematical modeling? Looking for models to use? Want some ideas on how to incorporate modeling into your classroom? How to evaluate them? At the risk of being overloaded with information, attend this workshop and have all these questions answered.

## Margaret Kidd

Califonia State University, Fullerton, California
D222, 223 \& 224 (DALLAS CONVENTION CENTER

## 8:30 A.M.-10:00 A.M.

## 25 <br> Professional Development Changes Roles of Students, Teachers, and Administrators <br> (Preservice and In-Service) Gallery Workshop Learn about the Wyoming Triad (WyTRIAD) professional development model and how this long-term partnership of teachers, administrators, and facilitator addresses shortcomings of staff development through effective instructional practices, modeling, and reflections. I will illustrate the inquiry model used, and we will discuss results of studies on impact on students, teachers, and administrators.

## Joseph Stepans

University of Wyoming, Laramie, Wyoming
C156 (DALLAS CONVENTION CENTER)

## 9:30 A.M.-10:30 A.M.

## 26 <br> Examining the (Not So) Common Core State Standards for Mathematical Practice <br> (General Interest) Session

The mathematics classroom envisioned in the Common Core State Standards for Mathematical Practice is not at all common in today's schools. What do these standards mean for our work as teachers of mathematics? Engage in thinking about your own practice through mathematics problems, discussion, video, and reflection.

## Mark Ellis

California State University, Fullerton, California
C155 (DALLAS CONVENTION CENTER)

## 27 <br> Learn $\leftrightarrow$ Reflect Kickoff: Mathematical Reasoning in an Unreasonable Environment

(General Interest) Session
Reasoning is a cornerstone of mathematics at all levels. Principles and Standards for School Mathematics and the Common Core State Standards recognize this. Testing challenges this tenet. Come and explore problems that can be solved by reasoning, can be used in the classroom, but probably will not appear on tests.

Johnny Lott
Past President, National Council of Teachers of Mathematics; University of Montana (Retired), Oxford, Montana

C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)

## 28

## Powerful Actions to Enrich the Implementation of Standards-Based Instruction

(General Interest) Session

Learn about the latest resources from NCSM that support powerful actions to implement a standards-based curriculum. Resources include example mathematical tasks, research, position papers, instruction that promotes students' proficiency in mathematical practices, and a tool for analyzing instructional materials.

## Suzanne Mitchell

National Council of Supervisors of Mathematics, Denver, Colorado

C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 29 <br> My Cardinality <br> (Pre-K-2) Session

This session introduces the concept of cardinality to young children by exploring a variety of hands-on activities to be used in the mathematics classroom. Activities are designed to foster concept development by making connections to real-life situations.

## Maria Campitelli

Miami Dade County Public School System, Florida
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 30 <br> Building Links between Addition and Subtraction: Concepts and Number Facts <br> (Pre-K-5) Session <br> Addition and subtraction are closely linked. This session will demonstrate strategies you can use to reinforce the connection between these operations and to develop flexible thinking. In particular, the session will show practical ways to develop number facts for both operations through visual materials and games.

Peter Stowasser
ORIGO Education, Brisbane, Australia
C146 (DALLAS CONVENTION CENTER)

## 31 <br> Reading Problems in the Elementary School Mathematics Classroom

(Pre-K-5) Session

Many elementary school teachers aren't sure whether a student's progress is due to a mathematics or a reading problem. This workshop takes the teacher back through the basics of acquiring mathematical proficiency to help each student overcome reading and math obstacles that keep progress from happening.

Charlotte Foster
Missouri Western State University, Saint Joseph, Missouri
C142 (DALLAS CONVENTION CENTER)

## 32 <br> From the Great Wall to the Taj Mahal: Math in Asia

(6-8) Session
How do Asian and American math classrooms differ? What can American teachers learn from Asian practices? Come hear about the travels of two teachers to Chinese, Indian, and Singaporean classrooms. They will compare their observations to the book Outliers and offer some strategies to increase success in the math classroom.

Anna Davila
Sartartia Middle School, Sugar Land, Texas
Amber Muscarello
Fort Bend Independent School District, Sugar Land, Texas
D220 \& 227 (DALLAS CONVENTION CENTER)

## 33

## Helping English Language Learners Achieve College Readiness

(9-12, Higher Education) Session
English language learners' high school dropout and college success rates are disproportionately high and low, respectively. ELLs need special assistance for developing mathematics concept understanding. This session will offer helpful strategies and ideas to improve ELLs' college readiness.

## Bill Jasper

Sam Houston State University; TODOS: Mathematics for ALL, Huntsville, Texas

D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 34 <br> Innovative Assessments in Precalculus: From Classroom to Real World

## (9-12, Higher Education) Session

Explore alternative assessments that use precalculus concepts in a real-world context. Presented projects link regression with the Olympics, transformations of functions with art, social networking with trigonometry, and many more. Leave with examples and rubrics, ready to implement these projects on Monday.

## Amy Gersbach

Seneca High School, Tabernacle, New Jersey
Ingrid Williams
Shawnee High School, Medford, New Jersey
D174 (DALLAS CONVENTION CENTER)

## 35 <br> Steganography: The Art and Science of Hidden Messages

(9-12, Higher Education) Session

Steganography, from the Greek meaning "hidden writing," is the process by which a message is transferred from the sender to desired recipient without generating suspicion from another party. It is an elegant application of mathematics. I will present an overview, followed by a demonstration of the process that uses technology.

## Susan Helser

Davenport University, Grand Rapids, Michigan
D165 (DALLAS CONVENTION CENTER)

## 36 <br> Teaching Mathematics to Culturally and Linguistically Diverse Students

(Preservice and In-Service) Session
To succeed in mathematics, students need to develop and be able to use problem solving, reasoning, and communication. One in five U.S. students comes from a home in which a language other than English is spoken. Learn effective strategies for teaching culturally and linguistically diverse students.

## Darlene Fewster

Towson University, Maryland

10:00 A.M.-11:00 A.M.

## EW <br> 36.1

## Cracking the Code of Algebra

(3-9) Exhibitor Workshop
How does Hands-On Equations enable 80\% of inner city 4th graders to succeed with such basic equations as $4 x+3=3 x+$ 10 ? If algebra is a foreign language to your students, this session is for you!

Henry Borenson
Borenson and Associates Inc., Allentown, Pennsylvania
ew

## Pearson's digits Program: Where Math Clicks!

(6-8) Exhibitor Workshop
Experience digits, the only middle grades math curriculum built for today's digital students with all Interactive Whiteboard lessons, online assessments, robust RtI, and automatic grading and reporting. Find out how digits harnesses the power of technology to optimize your time and individualize their learning - both in and out of the classroom.

## Pearson

Upper Saddle River, New Jersey
R00M D168 (DALLAS CONVENTION CENTER)

10:30 A.M.-12:00 P.M.

## 37

## Math Fact Fluency: We Can Do It

(Pre-K-2) Gallery Workshop
What does it take to give students access to basic facts of addition and subtraction? I will share strategies and techniques to get students to automaticity of addition and subtraction by second grade. You will experience differentiated instruction through music, games, activities, choral chanting, and math tools.

## Barbara Novelli

Creative Mathematics, Arcata, California
D167 (DALLAS CONVENTION CENTER)

## 38 <br> Rocket Math into the Hands-On World

(Pre-K-2) Gallery Workshop
Time will fly, beanbags will soar to and fro, and playdough will be spun into snakes as participants explore exciting instructional methods for abstract concepts such as elapsed time, algebra, and measurement. These brain-based strategies always work, even with the most reluctant mathematicians.

Kathryn Robinson
WriteMath Enterprises, Inc., Valrico, Florida
D163 (DALLAS CONVENTION CENTER)

## 39 <br> Teaching with Theory in Mind: <br> A Constructivist Approach to Mathematics

(Pre-K-2) Gallery Workshop
Educators have often been told that we tend to teach mathematics the way we were taught. Here, participants will examine and challenge age-old beliefs about mathematics through hands-on activity, reflection, and discourse that will directly affect the early childhood classroom as they learn to teach with theory in mind.

## Sandra Bequette

Newman University, Wichita, Kansas
Karen Rogers
Newman University, Wichita, Kansas
Joan Purkey
Newman University, Wichita, Kansas

## 40 <br> Identifying Exclusionary Practices: Bilingual Latina, Latino Students and Problem Solving <br> (3-5, Preservice and In-Service) Gallery Workshop Participants will explore students' opportunities through interactions with peers and teachers during mathematical problem solving. Through a series of task-based activities and viewing and discussing related videos, the audience will collaboratively identify the supports and limitations of the interactive process.

Carlos Lopez Leiva
University of New Mexico, Albuquerque, New Mexico

## 41

## Developing Reasoning and Sense Making with NCTM's Free Online Resources

(3-8) Gallery Workshop
Capitalize on student interest in technology with NCTM's e-Examples, apps from Illuminations, and Calculation Nation games. Target both Content Standards and Standards for Mathematical Practice from the Common Core State Standards Initiative. Walk away with ready-to-use, engaging ideas to incorporate online interactives for teaching and learning.

## Sarah DeLeeuw

National Council of Teachers of Mathematics, Reston, Virginia

## 42 <br> Exploring Geometry with Quadrilateral Pieces: Beyond Pattern Blocks and Tangrams <br> (3-8) Gallery Workshop <br> Explore right, acute, and obtuse angles with Quadrilateral Pieces. Designed to enhance spatial thinking, these innovative materials will help students construct geometric meaning and build important vocabulary through trial and error. Your students will learn to communicate about geometric concepts as they work together to solve problems.

Aldo Bacallao
Henry County Schools, McDonough, Georgia
C140 (DALLAS CONVENTION CENTER)

## 43

## Great Tasks to Assess the Common Core State Standards Mathematics Practices

(3-8) Gallery Workshop
I will share three great tasks that revolve around an interesting problem with many methods of solution. The tasks are aligned with specific standards and practices and have multiple components. They start with a launch, progress to a core task, and include extensions. The session will include student work and rubrics. Topics will be data, geometry, and algebraic reasoning.

Connie Schrock
Emporia State University, Kansas
D166 (DALLAS CONVENTION CENTER)

10:30 A.M.-12:00 P.M.

## 44 <br> Literacy in Geometry

(3-8) Gallery Workshop
How can we connect literacy and geometry in elementary school classrooms? Using books in a classroom can connect real-world examples of geometric concepts being studied. Through a variety of books and activities, we will explore various shapes and realworld contexts to help children better understand geometry in the world around them.

## Kari Everett

Western Kentucky University, Bowling Green, Kentucky

## Joy Curtis

Western Kentucky University, Bowling Green, Kentucky
D222, 223 \& 224 (DALLAS CONVENTION CENTER)

## 45 <br> The Language of Math: Making It Happen in Your Classroom

(6-8) Gallery Workshop
In this exciting, highly practical session, you will discover steps that can help you motivate your students to participate actively, monitor their own comprehension, and gain the gift of the academic language of mathematics. Leave this session with renewed excitement and many excellent strategies for teaching and reaching even your most resistant students.

## John Seidlitz

Seidlitz Education, San Antonio, Texas
C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 46

## Freeze Frame: Snapshots of the Mathematical Meaning in Everyday Life

## (6-12) Gallery Workshop

To truly engage students in learning, we must give them avenues to formulate mathematical questions of the world around them. One way to foster natural curiosity is to allow students to take digital pictures of their own and apply a multitude of mathematical concepts with the aid of graphing calculators and dynamic software.

## Lorie McFee

North Buncombe High School, Weaverville, North Carolina
D171 \& 173 (DALLAS CONVENTION CENTER)

## 47 <br> Algebra 2, Trigonometry: Wrap Your Brain and Hands Around It

(9-12) Gallery Workshop

Participate in some fun, quick algebra 2 and trigonometry activities that will increase students' interest and teachers' enthusiasm by engaging students. Discover how using simple things such as M \& M's, toothpicks, paper plates, patty paper, rope, cone cups, movement, and singing will spice up your teaching and help students retain what they learn.

## Gary Kubina

Consultant, Mobile, Alabama
C156 (DALLAS CONVENTION CENTER)

## 48 <br> New and Preservice Teachers Workshop

(Preservice and In-Service) Gallery Workshop
Find answers to your questions on topics such as classroom management, parents, motivation, and keeping your sanity. Connect with other new teachers, learn from experienced professionals, and find resources to engage you and your students. You might even win a prize.
David Barnes
National Council of Teachers of Mathematics, Reston, Virginia
C144 \& 145 (DALLAS CONVENTION CENTER)

11:00 A.M.-12:00 P.M.

49<br>From Calculators to Curriculum: What Does Research Say?<br>(General Interest, Research) Session<br>Learn about NCTM's Research Briefs and Clips, including how they are developed, how you can use them to improve practice and in professional development sessions, and how to submit ideas for topics for future briefs and clips.<br>\section*{Karen King}<br>National Council of Teachers of Mathematics, Reston, Virginia<br>D162 (DALLAS CONVENTION CENTER)



Free T-shirts-
Stop by the Member Showcase to learn how to get one!

11:00 A.M.-12:00 P.M.

## 50 <br> Improving Achievement and Closing Gaps between Groups

## (General Interest) Session

The speaker will offer an overview of achievement trends at national and state levels, focusing particular attention on mathematics. She will focus on opportunity and achievement gaps that separate different groups of students, and share lessons from schools and districts that are tackling those problems head on and getting better results.

## Katie Haycock

The Education Trust, Washington, D.C.

## 51

## The Making of Flatland 2:

Sphereland
(General Interest) Session
Join writer/director Dano Johnson and producer Seth Caplan for exclusive clips and behind-the-scenes insight into the new film Flatland 2: Sphereland. Take a sneak peek into the mathematics of making the new animated film, and catch exclusive clips featuring math lessons from the movie.
http://www.spherelandthemovie.com
Seth Caplan
Flat World Productions, Austin, Texas
Dano Johnson
Flat World Productions, Austin, Texas
C146 (DALLAS CONVENTION CENTER)

## 52 <br> Multisensory Approaches to Helping Young Children Learn Mathematics

(Pre-K-2) Session
Come and learn about activities that allow young students to develop understanding of concepts in number, pattern, data, geometry, and measurement by using an auditory and tactile approach. I will share ways to differentiate lesson materials by using technology and other resources.
Carrie La Voy
University of Kansas, Lawrence, Kansas

## Susan Gay

University of Kansas, Lawrence, Kansas
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 53

## It's Hip to Be Square

(Pre-K-5) Session
Geometry is where it's at. Let's look at the development of students' geometry reasoning and how we can develop it with open-ended tasks-tasks easily adapted to both whole- and small-group environments. We'll also talk about how we can use the information these tasks give us to help students become geometry superstars.

## Thomas Fox

University of Houston-Clear Lake, Texas
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 54

## Summing It Up

## (3-8) Session

Participants will engage in a problem-based lesson that models the Launch-Explore-Summary lesson format. We will help participants learn more about effective questioning strategies that can occur during the summary portion of the lesson in order to make necessary mathematical connections and formalizations of content.

## Lynne Nielsen

Louisiana Tech University, Ruston, Louisiana

## Bill Nielsen

Arkansas Department of Education, Little Rock, Arkansas
C155 (DALLAS CONVENTION CENTER)

## 55 <br> So, Who Invented the Order of Operations?

## (6-8) Session

This presentation proposes a unique perspective of the order of operations that is quite different from the usual textbook approach. The speaker will go far beyond "Please Excuse My Dear Aunt Sally," investigating the conceptual foundation for a set of rules that most mathematics educators consider a convention.

## Concepción Molina

SEDL, Austin, Texas
D174 (DALLAS CONVENTION CENTER)

## 11:00 A.M.-12:00 P.M.

## 56 <br> Detracking Mathematics from the View of Both Administrators and Teachers

(6-12) Session
The speakers' school district reviewed the data, and the message was clear: students in the lowest algebra track were left unprepared for college and their careers. In response, the district removed the lower track and created several supports for students. Hear how teachers and administrators collaborated to make the effort successful.

David Wartowski
Niles North High School, Skokie, Illinois
Bob Williams
Niles West High School, Skokie, Illinois
C142 (DALLAS CONVENTION CENTER)

## 57 <br> Making Mathematics a Habit <br> (6-12) Session

The speakers will look at developing mathematical habits of mind through literature and problem solving by engaging in mathematical adventures using Number Devil and other books. Take away teaching ideas and problems to use with your students, and have fun doing math yourself. Topics will include Pascal's triangle, prime and Fibonacci numbers, and more.

Trena Wilkerson
Baylor University, Waco, Texas
Dittika Gupta
Baylor University and Waco Independent School District, Texas
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 58 <br> Applying the Common Core State Standards

(9-12) Session
Take part in engaging activities that not only highlight different content areas of the Common Core State Standards for Mathematics but also focus on the Mathematical Practices. Activities will include functions, geometry, data analysis, and probability and will focus on modeling, reasoning, and sense making. We will also use ideas about formative assessment.

## Fred Dillon

Strongsville High School, Strongsville, Ohio
D220 \& 227 (DALLAS CONVENTION CENTER)

## 59 <br> Problem-Solving Penpals: Preservice Teachers and Fourth Graders

## (Preservice and In-Service) Session

Preservice teachers concurrently enrolled in two methods courses (math and language arts) served as penpals with fourth-grade students. These letters focused on mathematical problem solving. Preservice teachers learned not only to offer feedback about problem solving but also how to communicate more clearly and use multiple representations.

Dawn Turkovich
Saint Vincent College, Latrobe, Pennsylvania
Kristin Harty
Saint Vincent College, Latrobe, Pennsylvania
D165 (DALLAS CONVENTION CENTER)

11:30 A.M.-12:30 P.M.

## eW 59.1

## Navigating Your Way through the Fraction Story of the Common Core

(1-5) Exhibitor Workshop
One approach to the story of fractions is to build upon students' understanding of counting and whole number arithmetic and extend this previous knowledge to the study of fractions. This session will focus on conceptual understanding of the "knotty" topic of fractions including connections to equal partitioning and unitizing. Video clips will be used to examine the conceptions many students have that allow them to complete some tasks successfully but that prove inadequate in other contexts.

Pearson
Upper Saddle River, New Jersey
R00M D168 (DALLAS CONVENTION CENTER)

## EW 59.2

## Best Practices in Mathematics:

 Deepening the Data to Improve Student Learning(4-12) Exhibitor Workshop
Test scores indicate priorities for improvement, but additional data are needed to develop well-focused change plans. This presentation will share specific strategies for systematically gathering and effectively using data for a more complete picture to guide planning. Discussion will include how to interpret test information and then link this information directly to instructional activities found throughout the program. This is a hands-on session with many practical ideas to take back and use right away in the classroom.

## Houghton Mifflin Harcourt <br> Austin, Texas

## 60

## Access to Math for Students with Moderate and Severe Disabilities

(General Interest) Session
Students with moderate to severe disabilities are required to have access to state-adopted math standards. What does this look like for students with significant communication, motor, and cognitive challenges? An experienced educator shows how differentiated math instruction, materials, and assistive technology pave the way for these learners.

## Karen Ross-Brown

AbleNet, Inc., Roseville, Minnesota
C142 (DALLAS CONVENTION CENTER)

## 61 <br> Fact Fluency: What, Why, When, How

(General Interest) Session
Join New York Times best-selling The Grapes of Math and Kakooma author Greg Tang as we explore what true fluency means, why it's crucial, when kids need it, and most important, how we can help them achieve it. This session will introduce new criteria for evaluating fluency, together with data on student performance that will astound you. It just may be time to rethink what it means to be fluent and "good in math."

## Greg Tang

Scholastic, New York, New York
C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)

## Differentiation: Supporting and Challenging All Students

(Pre-K-2) Session
Expectations for our students are becoming more rigorous. All students need to be able to problem solve, reason, and learn math with understanding. By adapting classroom practices, teachers can increase the likelihood of meeting these expectations. Come explore how to transform tasks to allow access and success for all students.

## Amy Mayfield

Math Solutions, Sausalito, California
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 63 <br> A Real Hands-On Approach to Teaching Place Value

(Pre-K-5) Session
Observe and engage in activities designed to develop deep understanding of the concept of place value. Using manipulatives based on the most powerful representation of ten, we will develop strong number sense and efficient mental computation strategies.

## Brian Tickle <br> Consultant, Taree, Australia

## 64 <br> Number Lines: A Foundational Problem-Solving Tool <br> (3-5) Session

The Common Core State Standards emphasize the number line because it connects components of our number system. The same number line also serves as a valuable problem-solving tool with the additional benefit of making students' thinking visible. Come join us in this interactive session, which will also feature activities to use in your classroom.

Kit Norris
Consultant, Southborough, Massachusetts
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 65 <br> Making Students' Thinking Visible

## (6-8) Session

Research on effective classrooms shows that visible thinking weaves throughout teachers' planning and presentation, giving teachers a variety of teaching strategies to use in the classroom. What are visible thinking's benefits? What classroom activities make students' thinking visible? Creating such activities is crucial to closing the achievement gap.

## Don Balka

Saint Mary's College, Notre Dame, Indiana
D220 \& 227 (DALLAS CONVENTION CENTER)

12:30 P.M.-1:30 P.M.

## 66 <br> Teaching Number Sense to the iGeneration

(6-8) Session
Examine how to engage, motivate, and teach the iGeneration (the Internet generation). Participants will have access to videos, websites, virtual worlds, and motivational strategies for students in grades 3-8 that can lead to building better number sense and facility with rational numbers.

## Eric Milou

Rowan University, Glassboro, New Jersey

## 67 <br> Engaging Students in Statistical Reasoning: Lessons Addressing the Common Core State Standards

(9-12) Session
Interact with student-centered lessons that address the Statistics and Mathematical Practices Standards found in the Common Core State Standards. We will use free statistics software and highlight key features of statistical reasoning. You can take away these engaging lessons and incorporate them into your own classroom.

Alden Edson
Western Michigan University, Kalamazoo, Michigan
Beth Ritsema
Western Michigan University, Kalamazoo, Michigan
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 68

Spirograph Designs in the Complex Plane
(9-12) Session
Interpret complex number operations geometrically in the complex plane within the context of linear iteration in order to create designs reminiscent of Spirograph. The designs are intrinsically motivating; your students will eagerly master the underlying concepts to create more and more fantastic designs.

## Robin O'Dell

Buffalo State College, New York
D174 (DALLAS CONVENTION CENTER)

## 69 <br> The Farmers' Problem

(9-12, Preservice and In-Service) Session
Come and explore the farmers' problem. We will use The Geometer's Sketchpad and GeoGebra to transform an n-gon into a triangle while preserving the original area of the $n$-gon. Then, we will apply the transformation techniques to solve the farmers' problem. Participants do not need prior knowledge of The Geometer's Sketchpad or GeoGebra.
Jonathan Duarte
University of Wisconsin—Stevens Point, Wisconsin
D165 (DALLAS CONVENTION CENTER)

12:30 P.M.-2:00 P.M.

## 71

## Picture This

(Pre-K-2) Gallery Workshop
Primary school students love to draw pictures. Do they know that they are learning while they draw? You will learn how to influence students' learning by allowing them to draw mathematical representations that enhance and communicate their understanding. Mathematical concepts take on deeper meaning through representations.

Robbin Crowell
Fort Worth Independent School District, Texas
Gardenia Turner
Fort Worth Independent School District, Texas
C156 (DALLAS CONVENTION CENTER)


73

## What Does Algebra Really Look Like in Pre-K-Grade 5?

(Pre-K-5) Gallery Workshop
Algebra is a pre-K-12 NCTM Standard, and the Common Core State Standards list algebraic thinking starting in kindergarten. But what does this mean in pre-K-grade 5? The presenter, author of the series Planting the Seeds of Algebra: Explorations for the Early Grades, will model how to draw out the algebraic character of pre-K-grade 5 math. Handouts with ideas from her books will be provided.

Monica Neagoy
Monica Neagoy Mathematics Consulting Services, Arlington, Virginia

C140 (DALLAS CONVENTION CENTER)

## 74 <br> Fraction Fun with Color Tiles, Pattern Blocks, and Deci-Blocks

(3-5) Gallery Workshop
Participants will explore fractions interactively by using color tiles, pattern blocks, and Deci-Blocks. Topics will include equivalent fractions, scaling, mixed numbers, improper and proper fractions, and adding and subtracting fractions.

## Ann Wheeler

Texas Woman's University, Denton, Texas
D167 (DALLAS CONVENTION CENTER)

## 75 <br> Make Your Lessons Spatial with Geometry Connections

(3-5) Gallery Workshop
Do you need ideas that will motivate your students to want to solve problems, reason and justify answers, communicate, represent their thinking, and make connections to other areas of mathematics and the real world? Then consider geometric problem solving as a means of tying all the other Content Standards to the Process Standards.

## Nancy Campbell

Della Davidson Elementary School, Oxford, Mississippi

## 76 <br> Math in Motion: Origami across the Grades K-8 Curriculum

(3-8) Gallery Workshop
Discover a fun-filled way to teach the big ideas of basic math skills, geometry, and more. Learn proven, practical techniques to build a deeper understanding of math concepts to support the Common Core State Standards. Unfold teacher-friendly strategies. Boost retention skills with best practices. Bring out the joy of mathematics.

## Barbara Pearl

La Salle University, Philadelphia, Pennsylvania
Francis Collins
La Salle University, Philadelphia, Pennsylvania
D170 \& 172 (DALLAS CONVENTION CENTER)

## 77 <br> Algebra Connections: Model, Record, Reflect on a Budget

(6-12) Gallery Workshop
The Model, Record, Reflect framework of instruction with teacher-made manipulatives can give students take-home representations to enhance their understanding of basic algebra concepts and procedures. Learn how to make or find inexpensive manipulatives and how to connect their use to the abstract representation.

## Cassandra Etgeton

University of North Florida, Jacksonville, Florida
D222, 223 \& 224 (DALLAS CONVENTION CENTER)

## 78 <br> Developing Geometric and Spatial Reasoning Minds for the Future <br> (6-12) Gallery Workshop <br> Spatial visualization through unusual model building is a powerful tool in reasoning and sense making. It also illuminates any state standards in geometry. Several hands-on, inexpensive, nontraditional activities easily integrated into the classroom show the elegant power of three dimensions and surprising applications in our real world. <br> David Masunaga <br> NCTM Board of Directors; Iolani School, Honolulu, Hawaii

## 12:30 P.M.-2:00 P.M.

## 79 <br> Hooking Students on Algebra: Activities That Make It Fun

(6-12) Gallery Workshop
The presenters will share hands-on activities for teaching algebraic concepts, including slope, intercepts, equations of a line, and line of best fit. We will use TI-Nspire to increase the engagement further. Work through the hands-on activities and engage in rich discussions. Handouts will be available for all the activities.

## Dittika Gupta

Baylor University and Waco Independent School District, Texas
Trena Wilkerson
Baylor University, Waco, Texas
D164 (DALLAS CONVENTION CENTER)

## 80

## From Wikki Stix to Graphing

## Calculators

(9-12) Gallery Workshop
Grab a Wikki Stix and a graphing calculator: we are about to graph functions. By using graphing calculators, Wikki Stix, and crayons, the speaker will present activities that model discovery learning, especially determining inverses and regression equations through experimentation. Graphing calculators will be available.

## Deedee Stanfield

Oxford City School System, Alabama
C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 81 <br> Absolutely Amazing Math Projects That Your Students Will Love

(9-12, Preservice and In-Service) Gallery Workshop Dynamic projects are suited to differentiated learning needs. "The Butterfly" applies triangular ratios. "The Light Pole" is a group measuring project that encourages exploration and creativity. "The Spiral of Archimedes" engages the kinesthetic learner and integrates several levels of mathematics. Grading sheets included. This is both learning and fun.

## Terry Sermons

Caddo Parish School Board, Shreveport, Louisiana
D163 (DALLAS CONVENTION CENTER)

## 82

## Connecting Student Engagement and Math Identity to Mathematics Learning

(Preservice and In-Service) Gallery Workshop
A research study evaluated students' perspectives of their engagement in the mathematics and its impact on students' sense of themselves as mathematics learners (math identity). Students' engagement in mathematics is influenced by their prior experiences, personal attitudes, social interactions, and cultural norms.

Tracey Keck-Staley
Winston-Salem State University, North Carolina

1:00 P.M.-2:00 P.M.

## EW 82.1

## CCSS Math Practices? Trust CPM's 20 Years of Writing Experience!

(6-12) Exhibitor Workshop
Try some Lessons, take home samples of CPM's Core Connections series (© 2013). The "third generation" of CPM blends CCSS content and practice standards in a coherent sequence from 6th grade through Algebra 2. Course elements include problem-solving, mathematical thinking, problem-based lessons and mathematical discourse in a student-centered format.

CPM Educational Program
Sacramento, California
ROOM D161 (DALLAS CONVENTION CENTER)
ew 82.2
Pearson

## Exhibitor Workshop

See Program Updates, available in the Registration Area onsite.

Pearson
Upper Saddle River, New Jersey
R00M D168 (DALLAS CONVENTION CENTER)

1:00 P.M.-2:00 P.M.

## CW 82.3

## Math in Focus

Exhibitor Workshop
See Program Updates, available in the Registration Area onsite.

Houghton Mifflin Harcourt
Austin, Texas
ROOM D175 (DALLAS CONVENTION CENTER)

## 85

Games to Develop Number Sense: Creating Student Success

## (Pre-K-2) Session

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

## Laura Choate

Fallbrook Union Elementary School District, California
D220 \& 227 (DALLAS CONVENTION CENTER)

## 2:00 P.M.-3:00 P.M.

## 83

## Understanding English through

 Mathematics: Research-Based Plan for Teaching All Students(General Interest) Session
This presentation will demonstrate a research-based teaching model that integrates English with mathematics concepts that English language learner students already know. The speaker will use a grade 9 algebra class as an example, but the model is universal. It can be adapted to different types of mathematics content, at various grade levels, with all students, and it is interdisciplinary.

Joyce Fischer
Texas State University—San Marcos, Texas

## 84 <br> Who Do They Think They Are?

(General Interest) Session
How smart are your students? Do they have what it takes to achieve high mathematical goals? On the basis of brain research, we know more than ever about how to help all students reach their potential. We can realize the vision of decades of work to improve mathematics teaching and learning for real equity and powerful mathematical learning for every student.

Cathy Seeley
Past President, National Council of Teachers of Mathematics; Charles A. Dana Center, University of Texas at Austin, Texas

C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)

Chi Alpha Mu
The National Junior Mathematics Chb
has been reactivated by Mu
Npha Theta to seve middle
shool matemalics stadents. Visit www.chialphame.org

## Involve and Inspire

 Your Students!

Mational High School and Two-Year College Mathematics Honor Society
Benefits of having a chapter at your school
*Honors superior mathematics students
-State, regional and national competitions
-Scholarships and awards for members and sponsors
*National convention held every summer
*Certificates, honor cords \& jewery for student recognition
Jointly sponsored by the MAA, SIAM and AMATYC
NCTM is a founding member of Mu Alpha Theta

Mu Alpha Theta 601 flm Ave. Room 1102 Noman, or 73019-3163 Phone $405-325-4469$ fax $405-325-7184$ matherabouedo wwemasphathetaong

## 2:00 P.M.-3:00 P.M.

## 86 <br> Launch a STEM Program in Your Elementary School

(Pre-K-5) Session
Stretch the young minds of students by expanding interest in science, technology, engineering, and mathematics (STEM). Leave with ideas on how to begin a successful STEM program, developmentally appropriate for elementary school, that integrates spatial reasoning, manipulatives, and several team-building miniprojects.

Sheri Le
Hockaday School, Dallas, Texas
Leslie Gardiner
Hockaday School, Dallas, Texas
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 87 <br> Math Problem Solving and Fluency Work Together

(Pre-K-5) Session
Much of education has concentrated on either math fact fluency or math problem solving. Little research has examined how both instructional strategies work together for students. This session will highlight current research on how using both strategies improves student performance in all areas of mathematics.

Deborah Driesel
Liberty University, Lynchburg, Virginia
C155 (DALLAS CONVENTION CENTER)

## 88 <br> Developing Understanding of Data Analysis and Probabililty through Children's Literature

(3-5, Preservice and In-Service) Session
This presentation will describe strategies for integrating children's literature in mathematics lessons, using literature to situate mathematics learning as students ask natural questions. Explore and identify connections between real-world experiences and mathematics; engage with literature that promotes using mathematics to solve problems.

## Lecretia Buckley

Jackson State University, Mississippi
C146 (DALLAS CONVENTION CENTER)

## 89 <br> Developing Fraction Reasoning to Support Algebra Success

(3-8) Session
Use a variety of contexts and models to help students understand and reason about the big ideas of fraction concepts, order, and equivalence. The speaker will explore connections between fraction reasoning and understanding the meaning of variables.

Nadine Bezuk
San Diego State University, California
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 90 <br> Student Thinking about Data When Gathering or Analyzing Samples <br> (6-12, Research) Session <br> Discover important links between research on students' thinking about samples and sampling, and our teaching of some of the important ideas about analyzing distributions of data-including shape, center, and variability-that are included in the Common Core State Standards for Mathematics. <br> J. Michael Shaughnessy <br> Past President, National Council of Teachers of Mathematics, Reston, Virginia

D165 (DALLAS CONVENTION CENTER)

## 91 <br> Transforming Geometry through Geometric Transformations <br> (6-12) Session <br> Learn how geometric transformations-foundational to the Common Core State Standards-can be developed across grades 6-12. Doing so would increase the level of students' reasoning and sense making in geometry and build a firm foundation for more formal mathematical arguments, in alignment with the Standards for Mathematical Practice. <br> W. Gary Martin <br> Auburn University, Alabama

C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 92 <br> Formalism and the Transition to Proof-Based Mathematics

(9-12, Higher Education) Session
Students in mathematics face a difficult transition from computational courses such as calculus to proof-based courses such as abstract algebra. Many programs have a transitions course to introduce formalism and proof. Students need more help; the speakers will explore strategies to smooth the transition further. Examples from their experiences will be included.

Jonathan Corbett
Harris-Stowe State University, St. Louis, Missouri

## Ann Podleski

Harris-Stowe State University, St. Louis, Missouri
D162 (DALLAS CONVENTION CENTER)

## 93 <br> Core Math Tools: Supporting Inquiry, Conceptual Understanding, and Problem Solving

(9-12, Preservice and In-Service) Session
Core Math Tools is an integrated suite of mathematical software, including a computer algebra system, a spreadsheet, interactive geometry, statistics, and probability tools designed to promote strategic use of technology. The speaker will illustrate features of NCTM's new open-source software tools as we make sense of, and solve, problems in context.

Christian Hirsch
Western Michigan University, Kalamazoo, Michigan
C142 (DALLAS CONVENTION CENTER)

2:30 P.M.-3:30 P.M.

## ew 93.1

ORIGO: Stepping into Common Core Math
(K-5) Exhibitor Workshop
Schools across the USA are dealing with great challenges. Decreased funding and Common Core State Standards require a fundamental change of approach. Join James Burnett, president and publisher, as he shows how ORIGO has built on its reputation of innovation to develop Stepping Stones - a comprehensive online core math program that has captured the spirit of the CCSS.

## ORIGO Education

Earth City, Missouri

## CW 93.2

## Pearson

Exhibitor Workshop
See Program Updates, available in the Registration Area onsite.

Pearson
Upper Saddle River, New Jersey
R00M D168 (DALLAS CONVENTION CENTER)

2:30 P.M.-4:00 P.M.

## 94 <br> Measurement Mania: StandardsBased Measurement Activities for the Active Classroom <br> (Pre-K-2) Gallery Workshop <br> Attend this workshop to experience hands-on, Standards-based activities that facilitate the development of measurement concepts. Participate in activities that explore measurement attributes such as length, capacity, and area and the tools associated with these attributes. I will provide literature connections. <br> Latrenda Knighten <br> Board of Directors, National Council of Teachers of Mathematics; East Baton Rouge Parish School System, Baton Rouge, Louisiana

C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 95 <br> Let's Get Physical, with Math on the Floor

(Pre-K-5) Gallery Workshop
This interactive workshop will introduce teachers to many creative ways of exploring math concepts, in all five strands of math, on a large 100-square floor grid. Teachers will leave with feasible ways to make their own grid and many ideas for immediate classroom implementation. Wear comfy shoes and bring a camera.
Wendy E. Hill
Retired, Huntsville, Canada
D222, 223 \& 224 (DALLAS CONVENTION CENTER)

## 2:30 P.M.-4:00 P.M.

## 96

## A Number Sense Approach to $\times$ Facts: Every Day Counts

(3-5, Preservice and In-Service) Gallery Workshop

Experience a systematic approach to teaching basic facts in five to ten minutes a day that encourages reasoning and thinking while building fluency for all. Visual counting tapes and unique array flash cards help students break hard facts into easy ones while building language and making connections among $\times, \div$, and fractions of a set.

## Janet Gillespie

Great Source—Houghton Mifflin Harcourt Specialized Curriculum, Orlando, Florida

C156 (DALLAS CONVENTION CENTER)

## 97

## Color Tilles: Use Them for More than Just Counting

(3-5, Preservice and In-Service) Gallery Workshop You've probably used these items to teach content such as quantity, patterning, and perhaps even some basic problem solving. But have you considered using them to support fractions, measurement, geometry, and, yes, even algebra? This presentation will offer practical uses for color tiles and get you thinking outside the box.

Virginia Wilcox<br>Georgia College and State University, Milledgeville, Georgia

D166 (DALLAS CONVENTION CENTER)


## 98

No More "Monkey Moves"
(3-5, Preservice and In-Service) Gallery Workshop
"Monkey moves" refers to algorithmic steps students memorize but have little understanding as to how or why they work, especially with problem solving. Grouping sticks (1 stick, 10 sticks = 1 bundle, 10 bundles $=1$ baggie) and physically separating them into equal groups during division reinforces place value, trading, and the division algorithm.

## Stacy Keller

University of North Florida, Jacksonville, Florida
C140 (DALLAS CONVENTION CENTER)

## 99 <br> Strategic Games to Promote Reasoning, Discourse, and Motivation <br> (3-8) Gallery Workshop

Learn about the value of incorporating strategic play into mathematics classes, using games with fraction strips, number cubes, and sets of number cards. We will discuss students' mathematical discourse, opportunities for computational practice, and game extensions. Participants may keep all materials.

## Jacob Klerlein

Scholastic, Inc., New York, New York
Lea Ozeri
Scholastic, Inc., New York, New York

## 100 <br> Cupcakes, Hurricanes, and Staircases: Investigating Ratios and Proportional Reasoning <br> (6-8) Gallery Workshop

How can we help our students, especially our English language learners (ELLS), understand ratios and proportional reasoning more deeply? Engage in hands-on, minds-on investigations that develop an understanding of ratio and proportionality, and make connections to the Common Core State Standards for Mathematics by using ELL best practices.

Andria Disney
Chandler Unified School District, Chandler, Arizona
Melissa Hosten
Chandler Unified School District, Chandler, Arizona
D164 (DALLAS CONVENTION CENTER)

## 101

## Encourage Math through NASA's Flight Mission Challenge: Improving Earthquake Monitoring

(6-8) Gallery Workshop
This presentation will introduce educators to NASA's Flight Mission Challenge: Improving Earthquake Monitoring. Learn how NASA's G-III aircraft uses radar to measure deformations of Earth's surface. We will present interactive geometry and algebra lessons that tie in with this challenge.

Maria Blue<br>NASA Aero Institute, Palmdale, California

Bobbie Mitchell
NASA Aero Institute, Palmdale, California
C144 \& 145 (DALLAS CONVENTION CENTER)

## 102 <br> The Mathematics of Packaging

(6-8) Gallery Workshop
Create various packages for a spherical object, and determine which package is more cost efficient for time and material. Use a box-and-whisker plot to determine the parameters of a paper airplane contest, and estimate the time and cost of driving a trailer truck across the country.

## Claudia Maness

CORD Communications, Inc., Waco, Texas
D167 (DALLAS CONVENTION CENTER)

## 103 <br> Engaging the Teacher: Focusing on Grades K-8 Mathematics

(6-8, Preservice and In-Service) Gallery Workshop
Engage in activities designed to promote a conceptual understanding of grades $\mathrm{K}-8$ mathematics, specifically proportionality and multiplicative reasoning as supported in the Common Core State Standards. Teachers will collaborate and present their thinking as a way to model effective faculty-development activities.

## April Strom

Scottsdale Community College, Scottsdale, Arizona
D163 (DALLAS CONVENTION CENTER)

## 104 <br> Connecting Algebra and Geometry through Right Triangles, Using Casio PRIZM

(6-12) Gallery Workshop
Explore how to use the right triangle and the Pythagorean theorem as a visual model for the distance, midpoint, slope, and circle formulas. Supplied lessons and activities will use graphing calculator technology to demonstrate the connections.

## Judy Johnson

Portsmouth City Schools, Virginia
C BALLROOM 4 (DALLAS CONVENTION CENTER)

## 105

## High School Student Reasoning with Support of Core Math Tools <br> (9-12) Gallery Workshop

Engage in exemplary lessons designed to explore and reason mathematically with the support of mathematical software tools. We will focus on student reasoning, conjecturing, and justification opportunities by using NCTM's new Core Math Tools, downloadable to any computer. Bring a laptop, load, and reason mathematically.

## Henry Kepner

Past President, National Council of Teachers of Mathematics; University of Wisconsin—Milwaukee, Wisconsin

D170 \& 172 (DALLAS CONVENTION CENTER)

## 3:30 P.M.-4:30 P.M.

## 106

## Learn $\leftrightarrow$ Reflect Reflection Session

(General Interest) Session
This culmination session of the Learn $\leftrightarrow$ Reflect strand will facilitate a discussion of four reflection questions. Those who attend the Kickoff, at least one Learn $\leftrightarrow$ Reflect session, and the Reflection session will earn a personalized certificate.

## James Epperson

University of Texas at Arlington
Paul Foerster
Alamo Heights Independent School District, San Antonio, Texas

## Shirley Matteson

Texas Tech University, Lubbock

## Ruby Valent

South San Antonio Independent School District, Texas

## 3:30 P.M.-4:30 P.M.

## 107 <br> NCTM's Curriculum Focal Points and the Common Core State Standards

(General Interest) Session
Along with domains and clusters, the Common Core State Standards for Mathematics include essential areas identified at each grade. NCTM's Curriculum Focal Points offers a basis for discussion of these vital areas.

## Jane Schielack

Texas A\&M University, College Station, Texas
C BALLROOM $1 \& 2$ (DALLAS CONVENTION CENTER)

## 108

## Recommendations for Preschool Mathematics: Analysis of One Program's Alignment

(Pre-K-2, Higher Education, Research) Session<br>Learn about a study that examined how one preschool program's mathematics instruction aligned with NCTM and National Association for the Education of Young Children recommendations. After reviewing the findings of this research, the presenter will facilitate a discussion on how these results might influence learning experiences in preschool classrooms.

Elisabeth Johnston
Independent Researcher, Plano, Texas
D162 (DALLAS CONVENTION CENTER)

## 109 <br> Making Common Core State Standards Come Alive through Hands-On Fractions

(Pre-K-5) Session
This highly interactive presentation will connect fractions to real-life problem-solving situations and assessment as related to the Common Core State Standards. The session will include strategies for maximizing all students' potential, including regular and special education. Participants will receive a comprehensive handout with materials.

## Joan Vas

Kean University, Union, New Jersey
C155 (DALLAS CONVENTION CENTER)

## 110 <br> Methods for Teaching Subtraction from Around the World

(Pre-K-5) Session

Difficulties with multidigit subtraction are pervasive. The U.S. subtraction algorithm is different from those taught in France, China, and elsewhere. Teaching an alternative method can address recurrent errors. Struggling students may more easily learn a different subtraction algorithm; seeing how these work can challenge your most able students.

## Frances Stern

Mathematics Education Consultant, New York, New York
C146 (DALLAS CONVENTION CENTER)

## 111 <br> Using Guided Math to Strengthen Response to Intervention Strategies

(Pre-K-5) Session
This interactive session will help educators apply Guided Math methods as interventions in the RTI process. Partakers will learn how to create and facilitate Guided Math in the classroom. Video clips will illustrate techniques. Teachers will investigate researchbased intervention strategies, center ideas, and assessments.

## Sharonda Kali

Chicago Public Schools, Illinois
Simcha Baker-Dixon
Chicago Public Schools, Illinois
Natasha Jones
Chicago Public Schools, Illinois
D174 (DALLAS CONVENTION CENTER)

## 112

Exploring 1, 2, 3, across the Globe (3-5, Preservice and In-Service) Session
The speaker will describe counting in other countries, explore variations of the traditional addition and subtraction algorithms, and share relevant multicultural literature and manipulatives. You teach mathematics. You teach social studies. Why not teach mathematics during social studies or vice versa? Come learn how.

## Winifred Mallam

Texas Woman's University, Denton, Texas

## 3:30 P.M.-4:30 P.M.

## 113 <br> Make the Connection with RealWorld Math Projects

(3-8) Session
Connect your students with the real world by using math projects. Explore projects in number sense, discrete math, geometry, and proportional reasoning. Receive easy-to-follow guidelines and rubrics that will prepare you to indulge your students' needs to apply mathematics outside the classroom.

## Jenifer Martin

Saint Elizabeth Ann Seton School, Tucson, Arizona
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 114 <br> Using iPads in the Mathematics Classroom

(6-12) Session
The speakers will demonstrate mathematical applications for the iPad. They will use rolling various types of die, the clinometer app, and graphing apps to show how teachers can use this type of technology effectively in the mathematics classroom.

Sharon Padgett<br>Jacksonville State University, Alabama<br>Jan Case<br>Jacksonville State University, Alabama

C142 (DALLAS CONVENTION CENTER)

## 115 <br> Mathematics Instruction Using Decision Science and Engineering Tools

## (9-12, Higher Education) Session

This curriculum uses decision-making tools from industrial and systems engineering and operations research. Goals are to improve math students' ability to formulate and solve multistep problems and interpret results, and to improve students' attitude. Sample activities will be presented, and attendees will receive sample chapters.

David Pugalee
Center for STEM Education at the University of North Carolina at Charlotte

C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 116 <br> Developing an Online Math Course: Moving into the Twenty-First Century

(Higher Education) Session
This presentation will discuss how to develop an online math course by using a learning management system. We will compare online classes with on-campus classes. The presentation will include guided steps to prepare an online course. Finally, I will share a sample of an online math course.

Asma Akhras
Moraine Valley Community College, Palos Hills, Illinois
D165 (DALLAS CONVENTION CENTER)


# NCTM 2013 Annual Meeting \&Exposition <br> APRIL 17-20 • DENVER, COLORADO 

## Reasoning and Proof: Is It True? Convince Me!

Reasoning and proof are fundamental aspects of mathematics, and your students need a solid foundation to succeed. Take the next step to help them grow-join the best and brightest at the nation's premiere math education event. Whether you're a classroom teacher, coach, administrator, preservice teacher, or math specialist, NCTM's Annual Meeting has something for you.

- Gain strategies and tactics to transform your classroom into an environment rich in reasoning and proof
- Reach your high needs and special education students with new and effective intervention methods
- Learn practices central to teaching the Common Core State Standards
- Examine and discuss the connection between research and practice
- And more!

You and your students will benefit from the lessons and activities you'll get and the knowledge you'll gain. This is THE math education event you can't afford to miss!
(風) NCTM

Visit www.nctm.org/meetings for up-to-date information.

## Friday Planner

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30
Noon
12:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00

## HIGHLIGHTS

New Members and First Timers' Orientation (Presentation 117)
New and Preservice Teachers Workshop (Presentation 163)
Board Hot Topics Session (Presentation 165)

## ICON LEGEND

Presentation Numbers
EW Exhibitor Workshop

## REGISTRATION HOURS EXHIBIT HOURS BOOKSTORE AND <br> 7:00 a.m.-3:00 p.m. <br> 8:00 a.m.-4:00 p.m. <br> MEMBER SHOWCASE HOURS <br> 8:00 a.m.-4:00 p.m. <br> FIRE CODES

We have made every attempt to provide adequate seating for participants at the conference, but for your safety and because of fire regulations, only those with seats will be allowed in meeting rooms. To comply with fire codes, we will have to ask persons sitting on the floor or standing to leave the room.

## 7:15 A.M.-7:45 A.M.

## 117 <br> New Members and <br> First Timers' Orientation

(General Interest) Session
New to NCTM? Join us to learn how to maximize your membership experience. From journals and online lessons, tools, and activities, to networking and career-advancement opportunities, you'll discover all that NCTM has to offer you. Also, learn how to make the most of your time at the conference.

## Don Balka

Didax Educational Resources, Rowley, Massachusetts
Carol Edwards
Chandler-Gilbert Community College, Arizona
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 8:00 A.M.-9:00 A.M.

## 118 <br> Comparing Indian and U.S. Math Education in Urban Schools

(General Interest, Research) Session
Motivated by adaptation, accommodation, and modification, this study explores salient features of grades $\mathrm{K}-8$ mathematics curricula of urban schools. Learn about sociocultural dynamics in India that might enable culturally and linguistically different Indian students to make sense of mathematics taught in New York City schools and perform better.

Rupam Saran
Medgar Evers College, City University of New York, New York D165 (DALLAS CONVENTION CENTER)

## 119 <br> Making Math Much More Accessible to Our Students <br> (General Interest) Session <br> This fast-paced, upbeat presentation will identify and model a set of practical, easy-to-adapt instructional strategies that significantly enhance mathematical learning and retention at all grades. We'll look at how adapting a few daily routines can pay rich dividends in student mastery.

## Steven Leinwand

American Institutes for Research, Washington, D.C.
C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)

## 120

## Reaching Rigorous Standards with Special Education Students

(General Interest) Session
Promoting a culture of high expectations for all students is a fundamental goal of the Common Core State Standards. But how do we promote quality mathematics instruction in all classrooms, for all students? Learn a research-based framework for designing and implementing mathematics professional development targeted specifically for special education teachers.

## Amy Hunter

Jefferson County Public Schools, Louisville, Kentucky
Lynn Smith
Jefferson County Public Schools, Louisville, Kentucky
Leslie Covington
Jefferson County Public Schools, Louisville, Kentucky

## 121 <br> Math Big Books: Making Them and Putting Them to Use

(Pre-K-2) Session
Do the big books that you have in your classroom drive your curriculum, or do your children have other curriculum needs? Teachers will learn how to develop big books for math that support what their children need to learn.

Maggie McGuire
Maggie McGuire, Bryan, Texas
D220 \& 227 (DALLAS CONVENTION CENTER)

## 122 <br> Opportunizing Mathematics Learning in the Early-Years Learning Environment

(Pre-K-2) Session
Early-years learning environments can be a rich source of contextual and authentic math learning opportunities-we just have to know what we are looking for. What are the cornerstones of math development for early learners, and how can we effectively develop them in all learners? Come and explore strategies for achieving this goal at your learning place.

Lisa-Jane O'Connor
Primary Mathematics Association, Adelaide, Australia
Rod Nancarrow
Department of Education and Child Development, Adelaide, Australia

155 (DALLAS CONVENTION CENTER)

## 8:00 A.M.-9:00 A.M.

## 123 <br> Walk the Number Line

(3-5) Session
This session will focus on how to use a number line to solve rounding problems, making change, elapsed time, fractions, decimals, simplifying fractions, and factoring. I will present the latest research to transition grades 3-5 students from the basic number line to an empty number line. Come see how easy these strategies are to implement.

Kim Sutton
Creative Mathematics, Arcata, California
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 124 <br> Every Day Is Mathematical

(3-8) Session
We all know that March 14 is Pi Day, and many of us celebrate October 10 as Metric Day. But could one find a mathematical connection to every day of the year? This session will show you how to do so, to motivate students and review important numerical concepts in a fun, engaging way. Yes, every day is mathematical.

## Rita Barger

University of Missouri—Kansas City, Kansas City, Missouri
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 125

iPad Gaming and Fact Fluency
(3-8) Session
Learn how to use iPads and multiplayer educational games to engage your classroom and improve fact fluency.

## David Woodward

Boulder Valley School District, Colorado

8:30 A.M.-9:30 A.M.

## ew

## 128.1

## Pearson Hall High School Math and the Common Core

(6-12) Exhibitor Workshop
Learn how this blended print and digital curriculum not only engages students but also infuses Common Core Standards and Mathematical Practices throughout each lesson to ensure ALL learners acquire the critical knowledge and skills necessary to succeed in college and in their careers.

Pearson
Upper Saddle River, New Jersey
R00M D168 (DALLAS CONVENTION CENTER)

## 8:30 A.M.-10:00 A.M.

## 129

## Diversity Need Not Equal Adversity in Early Childhood Mathematics

(Pre-K-2) Gallery Workshop
Engage in hands-on activities from a research-based kindergarten math curriculum and small-group intervention to provide the mathematical understanding necessary for students at risk for math difficulties to meet high math standards. We will share key curricular features and lessons learned from classroom teachers.

## Sherril English

Southern Methodist University, Dallas, Texas
David Chard
Southern Methodist University, Dallas, Texas

## Saralyn Miller

Southern Methodist University, Dallas, Texas
C144 \& 145 (DALLAS CONVENTION CENTER)

## 130 <br> Forming a Firm Foundation by Using Foldables

(Pre-K-2) Gallery Workshop
Time flies by in this fast-paced, hands-on workshop. Cut, fold, and more as you use basic classroom materials to construct 3-D graphic organizers that will help you form a firm math foundation with your primary school students. This interactive session is a must for all interested in making connections between brain research and classroom practice.

## Nancy Wisker

Dinah Zike Academy, Comfort, Texas
D170 \& 172 (DALLAS CONVENTION CENTER)

## 131

## I'm a Math Specialist; Who Said II Was a Leader?

(Pre-K-5) Gallery Workshop
Math specialists are building or district leaders and regularly confront issues related to leadership. These issues include challenges in working with adult learners, mentoring their colleagues, and establishing professional learning communities-all while navigating the relationships that affect their work. Come help us figure this out.
Francis (Skip) Fennell
Past President, National Council of Teachers of Mathematics; McDaniel College, Westminster, Maryland

Beth Kobett
Stevenson University, Baltimore, Maryland
Jon Wray
Howard County Public Schools, Ellicott City, Maryland
C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 132 <br> Tools of Investigation for the Beginning Mathematician

(Pre-K-5) Gallery Workshop
The fifth Standard for Mathematical Practice is "Use appropriate tools strategically." Come and see how the TI-10 and the TI-15 can aid the beginning mathematician to explore and deepen his or her understanding of mathematical concepts. Participants will engage in an activity with each that incorporates a trade book.

## Tammy Jones

TLJ Consulting Group, Nashville, Tennessee
C140 (DALLAS CONVENTION CENTER)

## 133

## A One-Handed Tribe: A Closer Look at Place Value

(3-5) Gallery Workshop
This presentation will demonstrate an engaging, thought-provoking activity to meet the Common Core State Standards' grade 5 "number operations in base 10" standard. Students compete in a scenario where they are members of a one-handed tribe, to learn regrouping and what the place-value system represents in mathematics.

## Tara Morey

Durango School District 9-R, Colorado
Debbie Goodman
Durango School District 9-R, Colorado

## 134 <br> Assessment, Instruction on Multiplication and Fractions for Response to Intervention

(3-5) Gallery Workshop
The speakers will apply research-based assessment and differentiated instruction strategies to NCTM's Curriculum Focal Points and the Common Core State Standards, using manipulatives, games, and vocabulary appropriate for special-needs and English language learners to integrate basic skills and problem solving. Participants will receive handouts.

## Susie Whisnant

Math Teachers Press, Inc., Minneapolis, Minnesota
D164 (DALLAS CONVENTION CENTER)

## 135

## Calculation Nation: Game On!

## (3-8) Gallery Workshop

Engage students in math in a familiar environment to most: online games. Calculation Nation (http://calculationnation.nctm .org) is a site of free online games from NCTM. Come to this session prepared to challenge yourself, learn math, and have fun. Topics may include patterns, fractions, or variables. Attendees will decide which games to play.

Patrick Vennebush
National Council of Teachers of Mathematics, Reston, Virginia
D167 (DALLAS CONVENTION CENTER)

## 136

It's All Connected: Understanding Middle School Topics through Proportionality

## (6-8) Gallery Workshop

How do the Common Core State Standards address proportionality? Let's investigate lessons that incorporate proportional reasoning as we teach number and operations, algebraic thinking, geometry, measurement, and data and probability. These lessons exemplify the Standards for Mathematical Practice.

## Carmen Whitman

Mathematics for All Consulting, Pflugerville, Texas

## Emma Trevino

University of Texas at Austin, Charles A. Dana Center

## 137

## Mathematics in the Sky

## (6-8) Gallery Workshop

This session is designed to show educators new ways to teach distance-rate-time problems by using the real-life application of air traffic control.

## William Luke

Central Texas College, Killeen, Texas
Gregory Luke
Temple High School, Temple, Texas
D166 (DALLAS CONVENTION CENTER)

## 138 <br> Do the Geometric Function Dance: Traditional and Sketchpad Versions

(6-12) Gallery Workshop
In a function dance, the independent variable leads and the dependent variable follows. Dance roles are defined by a variety of functions-some of them traditionally, moving around the room; others virtually, using Sketchpad. You'll receive classroom-ready activities. Bring your dancing shoes and a laptop if possible.

## Scott Steketee

Key Curriculum Press Technologies, Emeryville, California
C BALLROOM 4 (DALLAS CONVENTION CENTER)

## 139 <br> Using Manipulatives and Fun Investigations to Teach Geometry Topics

## (6-12) Gallery Workshop

Use hinged mirrors, rubber bands, patty paper, paper plates, other manipulatives, and interesting problems to develop and apply geometry concepts and review vocabulary. Topics will include similarity, triangle heights, transformations, central angles, polygons, area, and more.

## Christine Mikles

College Preparatory Mathematics Educational Program, Sacramento, California

## Karen Wootton

College Preparatory Mathematics Educational Program, Sacramento, California

D222, 223 \& 224 (DALLAS CONVENTION CENTER)

## 140 <br> Giant Polyhedra, Inside and Out: Hands-On Development of 3-D Concepts

(Preservice and In-Service) Gallery Workshop

Build larger-than-life polyhedra by using lightweight, brightly colored, giant triangles - no prior knowledge or experience required. This hands-on experience moves through the first three van Hiele levels, developing a deep level of conceptualization about polyhedra, and integrates all the NCTM Process Standards.

## Jacqueline Sack

University of Houston Downtown, Texas
Michael Connell
University of Houston Downtown, Texas
C156 (DALLAS CONVENTION CENTER)

## 9:30 A.M.-10:30 A.M.

## 141

## Cutting to the Core with the Standards for Mathematical Practice

(General Interest) Session
"For all students to become proficient in mathematics, they must internalize the eight Standards for Mathematical Practice as the means to learn, understand, and retain the content standards." Let's examine rich mathematical tasks that encourage the development of the practices in your students and the implications for your instructional practice.

## Linda Gojak

NCTM President, National Council of Teachers of Mathematics; John Carroll University, University Heights, Ohio

C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)

> Access the Conference App! Visit www.nctm.org/confapp

## 142

## Formative Assessment Online: Assist, Assess Common Core State Standards Instantly

(General Interest) Session
Businesses collect and use data to target their customers exquisitely. ASSISTments, a free public service of Worcester Polytechnic Institute with funding from the Gates Foundation, tracks progress on Common Core State Standards. See how teachers use actionable data to tailor their teaching while students get instant feedback to target their learning.

## Cristina Heffernan

Worcester Polytechnic Institute, Massachusetts
Barbara Delaney
Bellingham School District, Massachusetts
C142 (DALLAS CONVENTION CENTER)

## 143 <br> Put On Your Math Goggles: Discover Pre-K-2 Mathematics in Art

(Pre-K-2) Session
Bring the NCTM Standards alive by exploring patterns in works by Matisse; shapes and solids in art by Kandinsky, Thiebaud, and Warhol; and other math concepts in artwork created by Arp, Mondrian, and more. Connect children's literature that features the visual arts to math concepts. Highlight the benefits of an arts-infused math curriculum.

Robin Ward
Rice University, Houston, Texas
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 144 <br> Turn the LAMP On <br> (3-5) Session

Experience how mathematics and language arts teachers unite to design engaging and insightful Language Arts and Mathematics Projects (LAMP). Learn how to have students write their own math problems by using the language arts elements of alliteration, onomatopoeia, rhyme, or personification.

## Faye Bruun

Texas A\&M University Corpus Christi
Erica Garcia
Corpus Christi Independent School District, Texas
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 145 <br> Improving Response to Intervention Skills in Upper Elementary Mathematics

(3-8) Session
The speaker will describe combining high-yield instructional strategies with technology to reach upper elementary school learning communities. He will model specific lessons correlated with the new Standards, involving various resources at all three tiers in an inclusive model of differentiated instruction. Attendees will leave with resources.

## Rudy Neufeld

Neufeld Learning Systems, Inc.; Thames Valley Schools, London, Canada

C146 (DALLAS CONVENTION CENTER)

## 146 <br> Six Points of Connections: A Math Vocabulary Strategy <br> (3-8) Session

What does Kevin Bacon have to do with teaching mathematics? Six Points of Connection, inspired by the game Six Degrees of Kevin Bacon, is a new vocabulary strategy, easily integrated into any curriculum, that creates deeper relationships among words.

## Amy Vessel

Louisiana Tech University, Ruston, Louisiana
Valerie Taylor
Farmerville Junior High School, Farmerville, Louisiana
C155 (DALLAS CONVENTION CENTER)

## 147 <br> Español + English = Espanglish <br> (6-8, Research) Session

We will discuss means for identifying when and how using a particular language in the mathematics classroom helps Latino English language learners learn mathematics. We will also report on the development of a new classroom observation tool to measure the quality of academic language.

## M. Alejandra Sorto

Texas State University, San Marcos, Texas

## Aaron Wilson

Texas State University, San Marcos, Texas
Carlos Mejia Colindres
Texas State University, San Marcos, Texas

## 148

## Ingredients for Successful Lessons: Challenging Tasks and Questions That Count

(6-12) Session
Research suggests that some instructional practices can make a difference in what students learn. What strategies can you use to make these happen in your classroom? What is the role of dynamic, interactive technology in supporting those practices?

## Gail Burrill

Past President, National Council of Teachers of Mathematics; Michigan State University, East Lansing, Michigan

D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 149 <br> Teaching Algebra with the Concrete-RepresentationalAbstract Technique to Students with Disabilities <br> (6-12) Session <br> Participants will learn how to teach introductory algebraic concepts to students with exceptional learning needs by implementing the concrete-representational-abstract technique. Specifically, individuals will examine how manipulatives are used to teach basic algebra at the concrete level before using pictorials at the representational level. <br> Joseph Sencibaugh <br> Webster University, Saint Louis, Missouri

## 150

## This Hawk Can Teach Statistics

(9-12) Session
The Salt Lake Center for Science Education and HawkWatch International partnered to introduce high school students to data collection and analysis through a field trip to a raptor migration monitoring station. They then analyzed several data sets in class and presented their findings in a symposium at the end of the year.

## Jennifer Hajj

HawkWatch International, Salt Lake City, Utah
Diane Crim
Salt Lake Center for Science Education, Utah
D174 (DALLAS CONVENTION CENTER)

## 9:30 A.M.-10:30 A.M.

## 151

## Comparing Approaches for Summer Math Enrichment Programs for Incoming Freshmen

(9-12, Higher Education) Session
Since summer 2009, Harris-Stowe State University has run the Science and Math Academy for incoming freshmen. We present how our approaches have developed from a primarily traditional approach to one focusing more on hands-on activities and encountering mathematics in context. We provide examples of activities and share data comparing the approaches.

## Ann Podleski

Harris-Stowe State University, St. Louis, Missouri
Jonathan Corbett
Harris-Stowe State University, St. Louis, Missouri

## Do Word Problems Scare the Daylights Out of Your Students?



## ew 151.1

## Do Word Problems Scare the Daylights Out of Your Students?

(3-12) Exhibitor Workshop
How does Hands-On Equations® enable 80\% of inner city 4th graders to succeed with such basic equations as $4 x+3=3 x+$ 10 ? If algebra is a foreign language to your students, this session is for you!

## Henry Borenson

Borenson and Associates Inc., Allentown, Pennsylvania
R00M D161 (DALLAS CONVENTION CENTER)

## ew 151.2

## Experience the Common Core State Standards through Investigations and the Common Core

(Pre-K-5) Exhibitor Workshop
Interactive whiteboard, assessment, and differentiated activities that focus on Standards for Mathematical Content and embed Standards for Mathematical Practice will be shared for use in your classroom.

Pearson
Upper Saddle River, New Jersey
ROOM D168 (DALLAS CONVENTION CENTER)

10:30 A.M.-12:00 P.M.

## 152

## Why Can't They Use a Ruler? Primary Measurement Activities

(Pre-K-2) Gallery Workshop
Teachable moments exist in every primary school classroom. Integrate measurement into other curriculum areas to bring meaning and depth to your lessons. Songs, literature, maps, and more offer a perfect opportunity for measurement. Make the ruler real.

Jeanine Haistings
William Jewell College, Liberty, Missouri
D167 (DALLAS CONVENTION CENTER)

## 153

## "Going Deep" without "Going to the Next Grade"

(Pre-K-2, Preservice and In-Service) Gallery Workshop
The new Common Core State Standards ask us to teach for depth rather than breadth. If my goal is counting from 1 to 10 , how do I "go deep" without "going to 11"? We might return to the practice of drills on math facts. Or we can think more deeply about number sense itself. In this workshop we will examine strategies for "going deep" without "going to the next grade."

Julianne DesOrmeaux
Consultant, Rochester, New York

## 154

## Engaging All Children with Number Sense, Fractions, and Problem Solving

(Pre-K-5) Gallery Workshop
I will present strategies to develop number sense, fractions, and problem solving. I will demonstrate use of manipulatives, technology, and mathematical discourse to build concepts, vocabulary, and reasoning. I will engage attendees with activities to develop patterns, place value, fractions, estimation, and problem solving. Handouts included.

Donna Knoell
Consultant, Shawnee Mission, Kansas
D164 (DALLAS CONVENTION CENTER)

## 155

## Apply Brain Research to Math Concepts by Using Hands-On Activities

(3-5) Gallery Workshop
Apply part-to-whole thinking to your math lessons to increase understanding. These research-based strategies and activities will enhance number sense, operations, geometry, measurement, and problem solving. Take home new materials that will encourage your students to build and store mathematical understanding in long-term memory.

## Mary Kay Bacallao

Mercer University, Macon, Georgia
D166 (DALLAS CONVENTION CENTER)

## 156 <br> Grab and Go: Literature, Games, and Centers

(3-5) Gallery Workshop

This workshop will look at differentiated instruction and what it means for the elementary school math classroom, as well as include hands-on games and activity centers with references to children's literature. Receive an extensive handout of ideas for literature, games, and activities for ready-made centers.

Donna Long<br>Houghton Mifflin Harcourt, Indianapolis, Indiana

D222, 223 \& 224 (DALLAS CONVENTION CENTER)

## 157 <br> Motivating Special-Needs Students to Become Competent Mathematicians

(3-5) Gallery Workshop
Are you having difficulty teaching computation to your specialneeds students? Do you need alternative strategies? Come actively involve yourself with games and activities that use the NCTM Math Computation Standard. Develop concepts, practice them, and apply them to problem solving.

Shirley Bradsby
Jeffco Schools, Lakewood, Colorado
C144 \& 145 (DALLAS CONVENTION CENTER)

## 158 <br> Destination Tessellation: Unravel the Mathematical Mystery of M. C. Escher

(6-8) Gallery Workshop
During this make-and-take geometry workshop, participants will unravel the mystery of M. C. Escher's artwork while creating an Escher-type tessellation guided by middle school-friendly instructions. Come join us for hands-on activities that support the blending of art and math to reach out to students who do not see the need to learn.

Dr. Martha Parrott
Northeastern State University, Broken Arrow, Oklahoma
C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 159

## Similarity: Developing the Big Ideas about Perimeter-Area-Volume Ratios

(6-12) Gallery Workshop
We'll work through several well-designed activities that help students discover the patterns related to the ratios of perimeters, areas, and volumes of similar figures. We will then apply these big ideas to a collection of real-life problems.

## Laurie Boswell

Riverside School, Lyndonville, Vermont

## 160 <br> Three Models to Preview Calculus Concepts, Grades 6-11

(6-12) Gallery Workshop
Use the Casio PRIZM calculators to explore the mathematics related to a Ferris wheel, a roller coaster, and a human cannonball flight. We will look at how to use these three math models to preview derivatives, extrema, inflection points, and other calculus concepts for students in grades 6-11.

## Terry Walsh

CTAC, Plano, Texas
C140 (DALLAS CONVENTION CENTER)

## 161 <br> Bringing Differential Equations to Life with Real Data

(9-12) Gallery Workshop

Most calculus students learn how to solve differential equations, but the solution process often seems like symbol manipulation and does not yield any meaningful insight. We will use real data to motivate the study of differential equations. The ability to solve differential equations will open up new and exciting modeling possibilities for students and teachers alike.

## Julie Graves

North Carolina School of Science and Mathematics, Durham, North Carolina

D170 \& 172 (DALLAS CONVENTION CENTER)

## Helping At-Risk Students Visualize Mathematics through Technology

(9-12) Gallery Workshop
At-risk students struggle with visualizing math concepts. Using graphing software and interactive whiteboard technologies, I will show how these technologies enhance students' understanding of topics in algebra and geometry. These activities, professional development, and technology access helped my district earn state and national awards.

## James Kearns

Salem State University, Massachusetts
D171 \& 173 (DALLAS CONVENTION CENTER)

## 163 <br> New and Preservice Teachers Workshop

(Preservice and In-Service) Gallery Workshop
Find answers to your questions on topics such as classroom management, parents, motivation, and keeping your sanity. Connect with other new teachers, learn from experienced professionals, and find resources to engage you and your students. You might even win a prize.

## David Barnes

National Council of Teachers of Mathematics, Reston, Virginia
D163 (DALLAS CONVENTION CENTER)

11:00 A.M.-12:00 P.M.

## 164 <br> Capturing, Sharing, and Resolving Perplexity

(General Interest) Session
Given the infinite buffet of tools and technology to try in the classroom, how do you decide what's worth you and your students' time? With no criteria guiding our selection, you'll spend years building up a closet of tools that promised a lot and didn't deliver. The speaker will describe perplexity and how to pick tools and technology to maximize it.

## Dan Meyer

Stanford University, Palo Alto, California
C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER

11:00 A.M.-12:00 P.M.

## 165 <br> Looking at the Common Core State Standards through an NCTM Lens: It's Still about the (Principles and) Standards

(General Interest) Session
The vision espoused in Principles and Standards for School Mathematics is as current today as in 2000. How has your teaching evolved as a result of this document? Let's reexamine the Principles and Process Standards in light of how they should influence effective mathematics instruction today.

## Latrenda Knighten

Board of Directors, National Council of Teachers of Mathematics; East Baton Rouge Parish School System, Baton Rouge, Louisiana

Mark Ellis
Board of Directors, National Council of Teachers of Mathematics; California State University, Fullerton, Fullerton, California

Linda Gojak
NCTM President, National Council of Teachers of Mathematics; John Carroll University, University Heights, Ohio

C142 (DALLAS CONVENTION CENTER)

## 166 <br> Finger-Tastic: Nontraditional Manipulatives for Number Sense and Fine Motor Development

(Pre-K-2) Session
Discover ways to use nontraditional manipulatives, such as LEGO bricks, to engage learners while building number sense, reinforcing computation, and strengthening fine motor development.

## Ann Hlabangana-Clay

Tower Hill School, Wilmington, Delaware
C146 (DALLAS CONVENTION CENTER)

## 167 <br> Lessons from Research

(Pre-K-2) Session
Math education is in a state of dramatic change. What does the research say that offers reliable guidance for using new standards, curricula, and teaching strategies? Discuss lessons from recent research. At the core of many successful efforts are learning trajectories-research-based paths of learning and teaching.

## Douglas Clements

University at Buffalo, State University of New York
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 168 <br> Motivational Math Activities to Increase Achievement

(3-8) Session
This presentation will showcase highly motivational, fun-filled, yet practical activities for the elementary school mathematics curriculum. Incorporate these techniques with a systematic action plan, based on national standards, to help raise test scores. Participants will leave upbeat and motivated.

## Kathy Harry

Saint Gregory Cathedral School, Tyler, Texas
D174 (DALLAS CONVENTION CENTER)

## 169 <br> Singin' and Signin' Teacher: Complex Concepts through Songs and Signs

## (3-8) Session

This fun, interactive session will show how to teach complex math concepts by using songs, signs, and gestures. Receive masters to create your own Flip and Fold. Learn proven strategies that ensure 100 percent student engagement. See why this program won the Classroom of the Future Innovations in Education Award for the ability to inspire, innovate, and achieve.

## Siegrid Stillman

Fallbrook Union Elementary School District, California

## 170

## How Can We Improve Students' Success with Algebra?

(6-8, Preservice and In-Service) Session
Why do many "successful" elementary school students have so much difficulty with formal algebra? How can we diagnose common misconceptions that many children develop regarding number and operations? Reveal "cracks" in students' thinking that may be keeping them from understanding their algebraic studies. Discover one district's plan to fill the cracks.

## Debi DePaul

STEPS Professional Development, Norwell, Massachusetts
Anne Swant
Walla Walla School District, Washington
D165 (DALLAS CONVENTION CENTER)

11:00 A.M.-12:00 P.M.

## 171 <br> Rational Numbers: Hard to Teach, Harder to Learn

(6-8, Preservice and In-Service) Session
We will explore visual representation of rational numbers that seamlessly develops an understanding of the slope of a line. Graphing ratios on the Cartesian coordinate plane allows participants to connect slope to line equations.

## Anne Collins

Lesley University, Cambridge, Massachusetts
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 172 <br> Calculus Activities with Multiple Representations

(9-12) Session
Join three Advanced Placement Calculus teachers who share different activities they have used to teach calculus concepts. Participate in lessons about related rate problems, volumes of solids, and the fundamental theorem of calculus that use multiple representations to develop deeper understanding of important concepts.

## Kevin Ford

Fort Worth Country Day School, Texas
Fred Dillon
Strongsville High School, Ohio

## Christian Haich

Strake Jesuit School, Houston, Texas
C155 (DALLAS CONVENTION CENTER)

## 173 <br> Introducing the Logistic Function

## (9-12) Session

The speaker will share a fun activity that introduces, explains, and discusses properties of the logistic function in high school algebra 2 or precalculus. She will offer a classroom-ready student activity sheet as a handout.

## Sandra Nite

Texas A\&M University, College Station, Texas
D220 \& 227 (DALLAS CONVENTION CENTER)

## 174

## Customized Web Homework: Why? How? To What Effect? Advantages? Disadvantages?

(Higher Education) Session
We created and used our own multiversion Web homework sets in five courses over five years, independent of commercial publishers, independent of texts, using a free system at the University of Kentucky. We found that it enhances communication between students and faculty and clearly benefits student mathematical performance.

Stephen Kuhn
University of Tennessee at Chattanooga
Terry Walters
University of Tennessee at Chattanooga

## Sandy Watson

University of Tennessee at Chattanooga
D162 (DALLAS CONVENTION CENTER)

12:30 P.M.-1:30 P.M.

## 175

Breaking the Code: The Mathematical Legacy of Alan Turing
(General Interest) Session
Mathematician Alan Turing broke the Nazi Enigma cipher, created the foundations of computer science, and pioneered the fields of artificial intelligence and neural networks. Persecuted for his homosexuality, Turing apparently died from suicide by cyanide poisoning. We will explore Turing's mathematical legacy in this centennial year of his birth.

## Michael Olinick

Middlebury College, Connecticut

## 176 <br> Shared Classroom Experiences: Teachers, Math Coaches, Principals Learning in Classrooms

(Pre-K-2) Session
How do teachers, principals, and math coaches learn together in the classroom to support student learning of early number sense, as identified in the Common Core State Standards for Mathematics? Learn about the Shared Classroom Experience, a professional learning structure allowing professionals to listen to student strategies and identify student supports.

Dana Cargill<br>Pampa Independent School District, Texas<br>Janice Bradley<br>New Mexico State University, Las Cruces

C155 (DALLAS CONVENTION CENTER)

## 177 <br> Games and Activities for Early Mathematics Based on Whole-Brain Learning

(Pre-K-2, Preservice and In-Service) Session
Experience critical brain research on perception, language, concepts, procedures, and attitudes via activities that can be integrated into lesson plans for both short- and long-term optimal learning experiences. We will consider how to apply learning science research to early mathematics program definition, pedagogy, curriculum, and assessment.

## Daniel Franklin

Six Red Marbles, Charlestown, Massachusetts
D220 \& 227 (DALLAS CONVENTION CENTER)

## 178 <br> Grade-Equivalent Changes due to Supplemental Basic Skills

(3-8, Research) Session
In a 21-month-long program ( $\pm 16.5$ months SD) of self-paced supplemental basic-skills mathematics, requiring twenty minutes per day of practice, ninety-two volunteer students (fourth grade average) from one school district averaged +1.00 grade-equivalent outcome over criterion-normed outcomes ( $\pm 1.7$ years SD).

## Stephen Armstrong

Kumon Amherst, Massachusetts
D165 (DALLAS CONVENTION CENTER)

## 179 <br> Math Happens When Children Wonder about What Authors Write

## (3-8) Session

Literature can ignite students' minds and lead to deep mathematical understanding. This author will show how books can inspire children to ask great questions and solve problems. He will share impressive student work, including exhaustive (often hilarious) extensions of books and impressive efforts to prove, improve, or disprove the author's math.

## David Schwartz

Author, Oakland, California
C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)
GucF

FREE MASTER'S DEGREE
Job-Embedded Teacher Preparation Program:
Resident Teacher Professional Preparation Program (RTP ${ }^{3}$ )
Eligibility: A bachelor's degree in a STEM field (Science, Technology, Engineering, and Mathematics) from 2008 or later with a minimum 3.0 GPA.

Scholarship Includes: Florida in-state tuition and fees, certification test costs, fingerprinting, technology resources, professional learning, and mentoring by both the district-level and university personnel.

Provides: Technology simulations for teachers; professional learning; coursework focused on learning theories, classroom/behavior management, content methods, diverse learner needs, experiential learning; job embedded internships; and mentoring.

Cohort II begins Summer 2013. Apply by February $15^{\text {th }}$ for best consideration. For more information, http://www.education.ucf.edu/rtp3/

12:30 P.M.-1:30 P.M.

## 180

## Oh, Now I Get It!

(3-8) Session
You'll be amazed at what your students can remember. Discover brain-compatible methods for learning and remembering mathematical concepts through songs, graphic organizers, and daily interactive starters. Learn methods of teaching problem solving, vocabulary, and various concepts such as fractions, decimals, and more through active learning.
Toni Woody
Independent Education Consultant, Lubbock, Texas
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 181

## Patterns, Patterns, Patterns!

(3-8) Session
In this grades 3-8 session, teachers will examine patterns in a variety of ways. They will explore patterns in the real world and applets that enable students to extend or create patterns, as well as use manipulatives to represent patterns. Finally, they will solve growing-pattern problems.

## Marilyn Strutchens

Auburn University, Alabama
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 182 <br> Using Technology to Generate Student Excitement for Problem Solving <br> (3-8) Session

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

## Nicholas Restivo

Mathematical Olympiads for Elementary and Middle Schools, Bellmore, New York

## 183 <br> Mathematical Curves in the Real World: Fun(ctional) Learning

(6-12) Session
I will present conic sections, spirals, catenaries, cycloids, fractals, and more, in many different ways (humorous and real). We will see hands-on activities, computer/calculator applications, and free online videos. I will focus on connections within mathematics and science. (Come learn why there really aren't any parabolic trajectories on Earth.)

## Scott Oliver

Adlai E. Stevenson High School, Lincolnshire, Illinois
D174 (DALLAS CONVENTION CENTER)

## 184 <br> How Big Is the Sun?

(9-12) Session
Given a picture of the solar system on a calculator and three points, use triangulation to find the volume of the sun.

## Deborah Heckathorne

Oil City Area School District, Pennsylvania
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 185 <br> How Do Prospective Teachers Interpret Student Errors? <br> (Preservice and In-Service) Session

We will share data from a project that used clinical interview videos to help prospective teachers (PTs) improve their understanding of student thinking. The PTs viewed videos, reflected on the student thinking they observed, and subsequently conducted their own clinical interviews. We will also discuss when and how PTs responded to student errors.

## Cecilia Arias

Rutgers University, Piscataway, New Jersey
Roberta Schorr
Rutgers University, Newark, New Jersey
Lisa Warner
William Paterson University, Wayne, New Jersey

## 186

## Connecting Dots Across the Curriculum by Using Common Core State Standards

(Pre-K-2) Gallery Workshop

This interactive workshop will demonstrate how to create project-based units using the Common Core State Standards across the curriculum in order to increase students' number sense. Teachers will have an opportunity to create differentiated center ideas and authentic assessments to address the needs of their students.

Natasha Gaines
Chicago Public Schools, Illinois

## Sharonda Kali

Chicago Public Schools, Illinois
Simcha Baker- Dixon
Parker Elementary School, Chicago, Illinois
D222, 223 \& 224 (DALLAS CONVENTION CENTER)

## 187 <br> Domino Games: Connecting the Dots for Primary School Students

(Pre-K-2) Gallery Workshop

Dominoes are a staple found in most primary classrooms. Come prepared to play games that teach number sense, patterning, operations, place value, and problem solving. Great game boards will be available, and you will leave with ideas to use Monday morning. These ideas are excellent for centers, backpacks, and after-school programs and for regular, ESL, and Title I programs.

## Allison Riddle

Box Cars and One-Eyed Jacks; Davis Unified School District, Salt Lake City, Utah

C147, 148 \& 154 (DALLAS CONVENTION CENTER)

## 188 <br> Engaging and Free Online Resources for Teaching Operations and Fractions

(3-5) Gallery Workshop<br>Experience classroom-ready lessons using free online apps from NCTM. All resources will be selected from 600+ lessons and $100+$ apps that appear on Illuminations (http://illuminations .nctm.org). Lessons will involve the four operations, fractions, and the order of operations, and attendees will discuss possible modifications for their classrooms.

Patrick Vennebush
National Council of Teachers of Mathematics, Reston, Virginia

## 189 <br> Power Play: Games for Teaching Place Value

(3-5) Gallery Workshop
Come prepared to play games that incorporate the use of cards and place-value dice. Games and strategies focus on reading, ordering, comparing large numbers, expanding and rounding numbers, patterns, and more. The speaker will share reproducible game boards, samples of students' work, and many strategies.

## Julie Armstrong

Fort Worth Independent School District, Box Cars and OneEyed Jacks, Texas

D170 \& 172 (DALLAS CONVENTION CENTER)

## 190

## A Day in Giant Land <br> (6-8) Gallery Workshop

Receive classroom-ready handouts for engaging activities that use a map of Giant Land and objects found there. See our own similar items, to explore measurement, ratio, proportion, and scale factor to predict how big a student is in Giant Land. We will also share extensions into linear functions.

## Lymeda Singleton

Texas A\&M University-Commerce, Lubbock, Texas

## 191 <br> Connecting Math with Our Global Society

## (6-8) Gallery Workshop

As global citizens, students need to be mathematically literate. Understanding budget deficits, environmental challenges, changing demographics, and more requires command of basic middle school math skills. Engage in hands-on activities that integrate math with social studies and science to grasp issues shaping our future. A free CD-ROM of activities will be available.

Alison Beazley
Kessler School, Dallas, Texas
D164 (DALLAS CONVENTION CENTER)

## 192 <br> NASA Smart Skies: Distance-RateTime Mathematics in Air Traffic Control

(6-8) Gallery Workshop
Bring excitement to distance-rate-time math by having students apply the proportional reasoning and problem-solving skills that air traffic controllers use. Predict and resolve conflicts by using a Web-based simulator or mobile app, an online graphing tool, and a physical experiment at the prealgebra and algebra levels. All materials are free online.

Rebecca Green
NASA, Moffett Field, California
Gregory Condon
NASA, Moffett Field, California
D163 (DALLAS CONVENTION CENTER)

## 193

## A Treasure Chest of Precalculus and Trigonometry Activities

(9-12) Gallery Workshop
Receive copies of a variety of activities, including Kagan activities, bingo, Jeopardy, unit circle, and others. The speaker will share suggested websites with other activities. All materials are easy to make and use. Several involve real-world applications of trigonometry. Participants may want to bring a jump drive to copy activities.

## Jane Jones

Bentonville High School, Bentonville, Arkansas
D166 (DALLAS CONVENTION CENTER)

## 194

## Exponential Explorations

(9-12) Gallery Workshop
Exponential functions offer the opportunity to explore many mathematical concepts. In this Casio PRIZM workshop, we will explore engaging students by using realistic context for problems; generating examples by graph, pictures, data, and simulations; and selecting models by algebraic analysis, using transformations, and regression.

## John Diehl

Casio Teacher Advisory Council, Plano, Texas
D167 (DALLAS CONVENTION CENTER)

## 195

## Making Secondary School Mathematics More Visual by Using Algebra Tiles

(9-12) Gallery Workshop
Manipulatives in a secondary school mathematics classroom? See how successful it can be: you can use algebra tiles in a variety of situations. Explore operations on polynomials all the way through factoring and completing the square. The important part is transitioning from concrete to abstract.

## Lonnie Bellman

Lemoore High School, California
Christine Mikles
College Preparatory Mathematics Educational Program, Sacramento, California

C144 \& 145 (DALLAS CONVENTION CENTER)

## 196

## Animating Geometric Reasoning by Using GeoGebra

(9-12, Preservice and In-Service) Gallery Workshop
"I understand each step, but I don't see it." Reasoning and proof are difficult for many students because of the level of abstraction. Learn the tricks of how to visualize geometric argument by using GeoGebra. We present ready-to-use tasks for teaching similarity; hands-on activities are available for participants to easily create their own animation.

## Kai Chung Tam

Teachers College, Columbia University, New York, New York
Ronny Kwan Eu Leong
Teachers College, Columbia University, New York, New York
C156 (DALLAS CONVENTION CENTER)

12:30 P.M.-2:00 P.M.

## 197 <br> Practice-Based Professional <br> Development for Practicing Elementary School Mathematics Teachers

(Preservice and In-Service) Gallery Workshop
Presenters share a distinctive form of professional development materials for elementary school teachers that integrates attention to mathematics, student thinking, teaching practices, and ways of learning from practice. Participants explore these materials and discuss the benefits and challenges of this form of practice-based professional development.

## Kara Suzuka

University of Michigan, Ann Arbor, Michigan
Meghan Shaughnessy
University of Michigan, Ann Arbor, Michigan
Timothy Boerst
University of Michigan, Ann Arbor, Michigan
C140 (DALLAS CONVENTION CENTER)

1:00 P.M.-2:00 P.M.
197.1

VmathLive - Learn. Play. Master: Build Mental Math Skills via Interactive Technology-Computers/iPads
Exhibitor Workshop
Experience student-centered, web-based technology that permits 24/7 access for students and will work on both computers and iPads (tablets). Use math activities most commonly taught in grades 2-8 that are aligned to TEKS and Common Core State Standards, as well as, Vmath modules, TransMath units, and popular basal textbooks.

## Voyager Expanded Learning

Dallas, Texas
R00M D161 (DALLAS CONVENTION CENTER)

2:00 P.M.-3:00 P.M.

## 198

Technology in Mathematics
Education in Singapore
(General Interest) Session
Singapore has gained international acclaim for its excellent mathematics textbooks. But another factor that contributes to Singapore's success is its innovative use of technology, especially Internet-based digital resources. Learn how Singapore and the United States use this technology to enhance mathematical learning.

## William Jackson

Franklin Lakes Public Schools, Scarsdale, New York
Eng Leok Chng
MC Online Pte Ltd., Singapore, Singapore

## 199 <br> Will the Common Core State Standards Improve Student Achievement?

(General Interest) Session
The CCSSM impact on student achievement will depend more on the implementation of the Standards for Mathematical Practice (SMP) than the Content Standards. We will discuss the SMP, their connection to NCTM Process Standards, and other high-leverage instructional strategies to improve student achievement and close the achievement gap.

## Matt Larson

Board of Directors, National Council of Teachers of Mathematics; Lincoln Public Schools, Nebraska

C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER)

## 200

## How to Promote Number Sense in Early Childlhood

(Pre-K-2) Session
It is fun to have a one hundred-bead abacus in your classroom as a teaching aid. It gives you the opportunity to make the children's learning experience exciting and enjoyable in a totally different way, and it will meet the Common Core State Standards as well.

## Tomoe Fujimoto

Tomoe MI Academy, Tokyo, Japan
Hiroo Kodama
Tomoe MI Academy, Tokyo, Japan

2:00 P.M.-3:00 P.M.

## 201 <br> Fear Not the Fraction

(Pre-K-5) Session
Elementary school students need experiences with multiple models of fractions to gain both a deep understanding of the concept and proficiency with skills, such as finding equivalence and operating. This session will explore which model is most appropriate for each purpose and will relate and classify all fraction types.

## James Burnett

Consultant, Brisbane, Australia
C146 (DALLAS CONVENTION CENTER)

## 202 <br> Great Math Lessons Based on Great Children's Literature

(Pre-K-5) Session
As educators increasingly value interdisciplinary lessons, publishers rush to produce stories based on math concepts. Teachers must ask two questions: "Is the math lesson accurate?" and "Is the book worthy of class time?" Explore great literature used to create relevant lessons based on NCTM Standards with a mathematician, award-winning author, and poet.

## MW Penn

Author, Hamden, Connecticut
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 203 <br> RtI: Using Data and Small Groups to Meet Student Needs

(3-5) Session
Learn how to incorporate data collection and analysis, along with small groups, into your math block. See how data can help drive your instruction, and experience the data collection and analysis process. Find out how response to intervention can become part of your daily routine.

Katie Busbey
Frisco Independent School District, Texas
C141, 143 \& 149 (DALLAS CONVENTION CENTER)

## 204

## Momentum: Building Capacity for Change through Connections to Children's Literature

## (3-5, Preservice and In-Service) Session

Through problem solving and connections to literature, Momentum -a grades K-6 science, technology, engineering, and math professional development project funded through Tennessee's Race to the Top award -addresses teacher numeracy as well as knowledge of the Common Core State Standards. Attendees will receive problems and other resources developed and used in the Momentum Project.

Dorothy Assad<br>Austin Peay State University, Clarksville, Tennessee<br>Lauren Wells<br>Austin Peay State University, Clarksville, Tennessee

D174 (DALLAS CONVENTION CENTER)

## 205 <br> Making Meaningful Middlle School Math Manipulatives

## (3-8) Session

Manipulatives are not just for lower elementary school. Learn how to make cheap, meaningful manipulatives to help your students develop conceptual understandings of fractions, decimals, and integers, with perhaps a bit of basic algebra thrown in.

## Jeanne Mather University of Science and Arts of Oklahoma, Chickasha, Oklahoma

D220 \& 227 (DALLAS CONVENTION CENTER)

## 206 <br> Yes We Can: Overcoming Math Anxiety <br> (3-8) Session <br> Once students hit an obstacle in learning mathematics, they develop math anxieties that research shows may plague them for life. Explore the most common sources of anxiety in grades 3-8, and discuss emotional learning tools that help your students change their attitudes and move forward. <br> Jennifer Rising <br> Latin School of Chicago, Illinois

C155 (DALLAS CONVENTION CENTER)

## 2:00 P.M.-3:00 P.M

## 207 <br> Explore the Calculator's LesserKnown Modes: Sequence and Parametric

(9-12, Preservice and In-Service) Session
Ever wonder how a daily dose or megadose of medicine affects your metabolism? How about modeling forestry management? We will model medical and environmental applications of convergence involving explicit and recursive form. We will also explore parametric representations of functions, conics, and modeling motion. Extensive handouts included.
David Kapolka
Forest Hills Public Schools (Retired), Grand Rapids, Michigan
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 208 <br> Visualizing Concepts and Applications of Differential and Integral Calculus

(Higher Education, Preservice and In-Service) Session
The visualizations needed to understand calculus tend to be cumbersome for first-time calculus students to grasp. This presentation will highlight many uses for The Geometer's Sketchpad in bringing to life concepts of both differential and integral calculus, such as limits and solids of revolution.

Jana Talley
Jackson State University, Mississippi
D165 (DALLAS CONVENTION CENTER)


## 209 <br> Big Ideas for Little Children

(Pre-K-2) Gallery Workshop
This session will offer carefully sequenced, developmentally appropriate mathematics activities for pre-K-grade 2 students. These hands-on activities will help young children see patterns, build relationships, and connect to prior learning to help them understand their real world. Handouts will include activities in both English and Spanish.

## Judy Bishop

McGraw-Hill, San Antonio, Texas
D170 \& 172 (DALLAS CONVENTION CENTER)

## 210 <br> Shuffling into Math: Primary School Math Games

(Pre-K-5) Gallery Workshop
Come prepared to play card, dice, and domino games that help your primary school students succeed in numeration, operations, place value, patterning, and graphing. We will share excellent take-home ideas, game boards, student samples, and more. Great for regular, ESL, and after-school programs.

Jane Felling
Box Cars and One-Eyed Jacks, Edmonton, Canada
C BALLROOM 4 (DALLAS CONVENTION CENTER)

## 211 <br> Make Concepts Click: Master Multiplication Facts and Simplify Problem Solving <br> (3-5) Gallery Workshop <br> Check out great conceptual ideas and watch students' confidence soar when you spend ten minutes a day for ten days having them use color, mnemonic devices, movement, rhyme, and short, consistent reviews to master basic multiplication facts once and for all, ensuring success for every learner, from concepts to problem solving. <br> Sandra White <br> Consultant, Shallowater, Texas

D222, 223 \& 224 (DALLAS CONVENTION CENTER)

2:30 P.M.-4:00 P.M.

## 212 <br> Visual Algebra: Concept <br> Development Using Pattern Blocks

(3-8) Gallery Workshop

Because of the current focus on testing, the use of manipulatives for concept development too often disappears at the intermediate school level. In this hands-on session, participants will learn how to use pattern blocks to explore, develop, and display algebraic thinking for students in grades 4-6.

## Pat Ballew

High Flyers Educational Enrichment, Los Angeles, California
C147, 148 \& 154 (DALLAS CONVENTION CENTER)

213<br>Investigating Signed Numbers: Why Do the Rules Work?<br>(6-8) Gallery Workshop<br>This workshop will focus on the conceptual understanding of adding, subtracting, multiplying, and dividing signed numbers. Various hands-on teaching strategies will help students abstract the generalized rules from computation.<br>\section*{Shelton Ford}<br>Fayetteville State University, North Carolina

C140 (DALLAS CONVENTION CENTER)

## 214 <br> Beyond Button Pushing: Explore with the Graphing Calculator

(6-12) Gallery Workshop
Let the thinking begin. To prepare for the future, our students must become risk takers and problem solvers. Come experience classroom lessons using color graphing technology, in which students explore how bowling, text messaging, and real-world data can make mathematics meaningful and relevant to their lives.

## Jennifer North Morris

Professional Development Specialist, Tucson, Arizona

## 215

## Generalizing Algebraic Expressions by Using Picture Patterns

(6-12) Gallery Workshop
Join the speakers as they explore patterns using tiles and snap cubes. Help your students learn to model patterns by writing an algebraic expression for the nth term of a sequence. Leave with classroom-ready activities that focus on using pictures rather than numbers to develop these algebraic expressions.

## Vivian Cyrus

Morehead State University, Kentucky
Christie Perry
Morehead State University, Kentucky
C144 \& 145 (DALLAS CONVENTION CENTER)

## 216

## Using Function Tables to Enhance Proportional Reasoning

(6-12) Gallery Workshop
Many students lack depth with regard to proportional reasoning. They are well versed in the mechanics of cross multiplication but lack understanding of what a proportion really means. Participants will create adapted function tables that will help students gain a deeper understanding of the relationships shown in a proportion.

## John Anderson

Houghton Mifflin Harcourt Publishers, Boston, Massachusetts

## 217

## Origamics: Problem Solving with Patty Paper

(9-12) Gallery Workshop
Origamics is the exploration of mathematical patterns through paper folding. Come join us as we explore a range of geometry problems created with a few folds on patty paper.

## Michael Serra

Consultant, San Francisco, California
D171 \& 173 (DALLAS CONVENTION CENTER

## 218 <br> Classroom-Level Assessment That Determines and Meets Individual Student Needs

(9-12, Preservice and In-Service) Gallery Workshop
Learn how to create and collect material for a classroom-level assessment program that determines individual student needs and how to meet them for any lesson. Discuss how to use the collected data to set up your lesson, determine your instructional mode, determine strategic student groups, and create differentiated questioning and worksheets.

## Allan Bellman

University of California, Davis
C156 (DALLAS CONVENTION CENTER)

## 219 <br> Who Benefits Most from a Preservice Program such as UTeach?

(9-12, Preservice and In-Service) Gallery Workshop

Whether you are a mentor teacher, an administrator, a student in a participating $\mathrm{K}-12$ school, a college STEM major, or a high school senior, the benefits of this nationally recognized program are immense. Enjoy a typical 5E lesson that UTeach students experience. Take away powerful strategies and practices you can use in mentoring new math teachers.

## Jacqueline Weilmuenster

University of Texas at Arlington

## Marsha Scott

University of Texas at Arlington

## 220 <br> Blogarithms: Converting Number Concepts into Talking Points

(Preservice and In-Service) Gallery Workshop
Connect your students to each other and to the outside world through blogging. Students gain a deeper understanding when they write about math. Blogs enable students to write, ask questions, collaborate, and research; blogs will do the same for you, too. Bring your own wireless device for a completely paperless experience.

## Wendy Prater

Hendrick Middle School, Plano, Texas
D166 (DALLAS CONVENTION CENTER)

## 221 <br> Why Unit Fractions? Understand How Asians Compare and Compute Fractions

(General Interest) Session
In Asia, fraction computation is based on the Egyptian approach to fractions. Come see how Asian countries use the unit fraction concept to compare fractions and compute division. Through unit fraction concepts, grades 3-8 students can jump beyond visualization needs. Come to discuss how North American educators can redesign the curriculum in light of Asian approaches to rational numbers.

Hsuehi (Martin) Lo
Saint Cloud State University, Minnesota
C BALLROOM 1 \& 2 (DALLAS CONVENTION CENTER

## 222

And the Data Say:
(Pre-K-2) Session
Instructor Mitzi Adams created and integrated an app developed by Clement Ho, an undergraduate student, to further study the relationship between subitizing and strengthening basic addition fact automaticity in second graders. Michelle Faerber, tech integration specialist, collected data by using the iPad.

## Mitzi Adams

Abilene Christian University, Texas
Michelle Faerber
Abilene Christian University, Texas
Clement Ho
Student, Abilene, Texas
D174 (DALLAS CONVENTION CENTER)

[^2]3:30 P.M.-4:30 P.M.

## 225

## The Mathematics Scan for Professional Development: Linking Research to Practice

(3-5, Preservice and In-Service) Session

This presentation addresses ways to use the Mathematics Scan-used primarily for data collection to assess mathematics instructional quality in classrooms-as a framework for educators to link research to practice. The speakers will argue for its potential as a diagnostic tool to identify areas to improve mathematics instruction.

## Holly Pinter

University of Virginia, Charlottesville, Virginia
Robert Berry
University of Virginia, Charlottesville, Virginia
D165 (DALLAS CONVENTION CENTER)

## 226

## It Starts with a Cube

(3-8) Session
A cube is the starting point for many rich problems involving even more math concepts. Work your way through factors, combinatorics, volume, surface area, networks, and more by solving Math Olympiad problems. A dozen of these cube problems offer a fresh approach to these topics. I will distribute more than fifty additional Math Olympiad problems.

## Dennis Mulhearn

Math Olympiads for Elementary and Middle Schools, Bellmore, New York

C155 (DALLAS CONVENTION CENTER)


## 227

## Lights, Camera, Action: Choosing and Creating Videos That Teach

(3-8) Session

Do you ever hear, "Why do I have to learn this?" or "When am I ever going to use this?" The Internet is full of free videos to help students see math used every day in our world. This session will help you find the best of the best in video demos and real-world applications of math. You will also learn to create your own instructional videos.

## Jeffrey Lay

Osage County Interlocal Cooperative, Hominy, Oklahoma
C BALLROOM 3 (DALLAS CONVENTION CENTER)

## 228 <br> Dig into Grade 7 Statistics and Probability Standards with Technology <br> (6-8) Session

Experience a series of interactive technology activities that use TinkerPlots Dynamic Data Software to thoroughly teach the Statistics and Probability standards of the Common Core State Standards. Your students will understand sampling, inference, and probability models like never before.

## Josephine Noah

Key Curriculum Press, Emeryville, California
C142 (DALLAS CONVENTION CENTER)

## 229 <br> Fifty Ways to Teach Them Algebra

(6-12) Session
In this high-energy, fifty-minute whirlwind presentation, attendees will experience fifty innovative ideas for using music, humor, games, hands-on activities, history, magic, mnemonics, technology, and household gadgets to engage students of all ages in exploring the world of algebra.

Deborah Char
St. Louis Community College Forest Park, Missouri
D221, 225 \& 226 (DALLAS CONVENTION CENTER)

## 230

## Beyond the Binomial Theorem

(9-12, Higher Education) Session
Mathematicians centuries ago, from Euclid and Pingala to Yang Hui and Pascal, worked extensively on the binomial theorem. The binomial theorem has interesting applications, theoretical and practical, beyond what is usually taught in the mathematics curriculum. Come learn or discover what else is interesting about the celebrated theorem.

Khoon Yu Tan
John H. Reagan High School, Houston, Texas
C146 (DALLAS CONVENTION CENTER)

## 231

## Grades K-3 Fraction Learning Lessons: A Partnership in Teacher Education

(Higher Education, Preservice and In-Service) Session
This presentation will focus on small-group lessons used in a study of fractional understanding in a public school. Participants will engage NCTM-based lessons appropriate for grades K-3 and discuss learning outcomes of students, teacher education candidates, and faculty. Longitudinal study findings will be shared.

## Pat Sharp

Baylor University, Waco, Texas
Betty Baker
Baylor University, Waco, Texas
Trena Wilkerson
Baylor University, Waco, Texas

## NEW

Developing Essential Understanding of Proof and Proving in Grades 9-12
By Amy B. Ellis, Kristen Bieda, and Eric Knuth
Stock \# 13803


NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS
(800) $235-7566$ | WWW.NCTM.ORG

## NEW

Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 6-8

By Nathalie
Sinclair, David
Pimm, and
Melanie Skelin
Stock \# 14122

## NEW

Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 9-12

By Nathalie
Sinclair, David
Pimm, and Melanie Skelin

Stock \# 14123

# Visit the NCTM Bookstore in the Exhibit Hall 

to see these and other titiles on display.

[^3]
# Regional <br> Conferences\& Expositions <br> <br> BALTIMORE, MARYLAND I OCTOBER 16-18 

 <br> <br> BALTIMORE, MARYLAND I OCTOBER 16-18}

LAS VEGAS, NEVADA I OCTOBER 23-25
LOUISVILLE, KENTUCKY I NOVEMBER 6-8

## Help Your Students Succeed in a Competitive World

In a global society with rapidly changing technology your students need the right tools to succeed. So take the next step to help them growfocus on the latest topics for math education at an NCTM Regional Conference. By attending you and your colleagues will:

- Learn more about the latest technology
- Discover new and effective intervention methods
- Refine your assessment techniques
- And more!

Whether you're a classroom teacher, coach, administrator, preservice teacher, or math specialist, this conference has something for you.
teachers of mathematics
This certificate is presented to
in recognition of attendance and participation at the
NCTM 2012 Regional conference and Exposition
Dallas, Texas • October 10-12, 2012

NATIONAL COUNCIL OF
teachers of mathematics

NCTM Regional Conference and Exposition October 10-12, 2012
Dallas, Texas

Name of Provider: National Council of Teachers of Mathematics

## Educator's Name:

$\qquad$
Description of Professional Development Activity: This is a two-day regional conference sponsored by the National Council of Teachers of Mathematics. More than 200 presentations are offered for teachers of prekindergarten through college. Topics range from administration to geometry, precalculus to statistics.

Note: PD time earned should be the time actually spent in sessions and/or workshops.

| Date | Session \# | Session Title | Presenter <br> Name(s) | Start/End <br> Time | PD Time <br> Earned |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

I certify that the above-named educator accrued the indicated number of professional development hours.
Kichoon Yang
Executive Director, NCTM
Linda M. Gojak
President, NCTM
Please check with your state education agency and local administration to determine whether these conference hours can be used for professional development credits.

Visit www.nctm.org/membership to learn more and join!
CONTACT INFORMATION
(PLEASE PRINT)
All fields marked with an * are required for processing

First Name* $\qquad$ Last Name*

Please check ONE box for preferred mailing address, but please complete both columns for our records:

## $\square$ Institutional Address

$\square$ Home Address
Institution* $\qquad$
Address*

Address*
City*
State/Prov* _ ZIP/PC*
Country* $\qquad$
Phone* $\qquad$
Primary E-mail*
Your grade level interest (check all that apply)*: $\square$ PreK-2 $\quad \square$ 3-5 $\quad \square$ 6-8 $\quad \square$ 9-12 $\square$ Higher Education
$\square$ I was referred by an NCTM Member: __ Member ID:
$\square$ Check here to remove your name from rental lists (companies renting lists must obtain approval from NCTM before using lists).
$\square$ Standing Yearbook Order Plan: Check this box to receive each NCTM Yearbook as it becomes available. Yearbooks may be returned in resalable condition within 30 days and you may cancel your plan at any time.
NOTE: Membership pricing valid through May 31, 2013. Visit www.nctm.org/membership for up-to-date pricing.

## OPTION 1

## Full Individual Membership

Includes a print subscription to one NCTM journal (print version includes online access to a digital edition). Select ONE journal below:
\$81 $\quad$ Teaching Children Mathematics (PreK-6) $\square \quad$ Mathematics Teaching in the Middle School (5-9) $\square \quad$ Mathematics Teacher (8-14)
\$108 Journal for Research in Mathematics Education

## Additional Print Journals:

May be selected to enhance your membership for as little as \$34.

| $\square$ | $\mathbf{\$ 3 4}$ | Teaching Children Mathematics (PreK-6) |
| :--- | :--- | :--- |
| $\square$ | $\mathbf{\$ 3 4}$ | Mathematics Teaching in the Middle School (5-9) |
| $\square$ | $\mathbf{\$ 3 4}$ | Mathematics Teacher (8-14) |
| $\square$ | $\mathbf{\$ 6 1}$ | Journal for Research in Mathematics Education |

- $\quad \mathbf{\$ 3 4}$ Teaching Children Mathematics (PreK-6)
\$34 Mathematics Teaching in the Middle School (5-9)

ㅁ \$61 Journal for Research in Mathematics Education

## PAYMENT SUMMARY

Membership Dues (Option 1 or 2). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$
Additional Print Journals (if choosing Option 1) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$
Additional Online Journals (if choosing Option 1 or 2) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$
Membership and Additional Journals Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$
Multi-Year Membership (not combined with Automatic Renewal Program)
For 2-year membership, multiply by 2 and deduct 10\%
. $\$$
For 3-year membership, multiply by 3 and deduct $15 \%$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$ $\qquad$
$\square$ OR SIGN UP FOR THE AUTOMATIC RENEWAL PROGRAM: Check box to auto-renew your membership every year and
SAVE 5\% off (each year). When your membership is due to expire, NCTM will renew it automatically using the credit card information provided for your most current membership transaction. Visit www.nctm.org/autorenew for details. . . . . . . . . .
. $\qquad$
Foreign Postage (if applicable): For mailings outside the U.S., add $\$ 18$ for the first journal subscription and $\$ 4$ for each additional print journal subscription per year. For multiyear membership, please multiply foreign postage by 2 or by 3 and add to payment line at right. Note: Multiyear and auto-renew discounts do not apply to foreign postage
Mathematics Educational Trust (MET) Support (Your contribution is tax deductible) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$
TOTAL Payment to NCTM in U.S. Dollars . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$$

## METHOD OF PAYMENT

MCVisaCheckMoney Order P.O. \# $\xrightarrow{\text { (include signed copy) }}$ $\square$ School/Company Credit Card
## Affiliate Membership

## Join an NCTM Affiliate Today!

Once you have joined NCTM, membership in an NCTM Affiliate is a terrific way to round out your professional involvement. Affiliates offer you an opportunity to link with teachers in your state, region, or city for support, professional development opportunities, community outreach, political advocacy, and information sharing.

A list of Partner Affiliates in the conference's region and the Affili-ates-at-Large appears below. To join one of these groups, e-mail the Affiliate contact for membership information. NCTM has more than 230 Affiliates throughout the United States and Canada. For a list of all organizations affiliated with NCTM and information on how to join, please see the Affiliate Directory on the NCTM website.

## About the Host Organizations

The Texas Council of Teachers of Mathematics (TCTM) is a professional organization that encourages educators to study and increase their knowledge of effective teaching practices in mathematics. TCTM publishes a peer-reviewed journal, Texas Mathematics Teacher, and cosponsors the annual Conference for the Advancement of Mathematics Teaching (CAMT), which is attended by over 5,000 members of the organization. TCTM's mission, promoting mathematics education in Texas, is supported by five focus areas: recruit and retain mathematics teachers, support for curriculum and instruction, advocacy in education policy, promote communication among teachers, and serve as partner affiliate to the National Council of Teachers of Mathematics (NCTM).
The Texas Association of Supervisors of Mathematics (TASM) promotes effectiveness in supervision, coordination, and teaching of mathematics, especially in the elementary and secondary fields. TASM's 500 members are provided with professional development and vital information focused on coordinating the work of mathematics supervisors across Texas. TASM also provides education and support for all mathematics teachers by sponsoring the annual

## Conference for the Advancement of Mathematics Teaching

 (CAMT).
## Affiliate Information

ALABAMA
Alabama Council of Teachers of Mathematics
Linda Ussery, Idussery@mindspring.com

## ARKANSAS

Arkansas Council of Teachers of Mathematics
Tony Timms, timms_tony@yahoo.com
Northeast Arkansas Council of Teachers of Mathematics
J. Mike Hall, mhall@astate.edu

ARIZONA
Arizona Association of Teachers of Mathematics
Nicole Kooiman, kooiman.nicole@chandler.k12.az.us

COLORADO
Colorado Council of Teachers of Mathematics Laurie Hillman, laurie.hillman@weldre4.k12.co.us

FLORIDA
Florida Association of Mathematics Supervisors Janet Bauman, janet.bauman@sdhc.k12.fl.us

Florida Council of Teachers of Mathematics
Diane Gard, gard.diane@brevardschools.org
Hillsborough County Florida Elementary Mathematics Council Barbara Knox, futureinmyhands@aol.com

GEORGIA
Georgia Council of Supervisors of Mathematics
Saralyn Barkley, sbarkley@docoschools.org
Georgia Council of Teachers of Mathematics
Susan Craig, secddc@aol.com

## KANSAS

Kansas Association of Teachers of Mathematics
Margie Hill, marghill@ku.edu

LOUISIANA
Acadiana Council of Teachers of Mathematics (Louisiana)
Mary Lou Jumonville, mljumonville@yahoo.com
Greater New Orleans Teachers of Mathematics (Louisiana)
Christopher Joyce, christopher.joyce@jppss.k12.la.us
Louisiana Association of Teachers of Mathematics Victoria Hand, vicky.hand@ctsb.org

Louisiana Council of Supervisors of Mathematics
DesLey Plaisance, desley.plaisance@nicholls.edu

## MISSISSIPPI

Mississippi Council of Teachers of Mathematics Jenny Simmons, 4simms@bellsouth.net

NORTH CAROLINA
North Carolina Council of Teachers of Mathematics
Rebecca Hoover, rebecca@hoovercpa.com

## NEW MEXICO

New Mexico Council of Teachers of Mathematics
Sheila Hills, sshills@nmsu.edu

## NEVADA

Nevada Mathematics Council David Brancamp, dbrancamp@washoeschools.net

Northern Nevada Mathematics Council
Jenny Salls, jennysalls@gmail.com

## Affiliate Membership

OKLAHOMA
Oklahoma Council of Teachers of Mathematics
Karen Strande, thestrandes@sbcglobal.net
Tulsa Council of Teachers of Mathematics (Oklahoma)
Teresa Whisenhunt, whisete@tulsaschools.org
SOUTH CAROLINA
Lowcountry Mathematics Educators Association (South Carolina) Cynthia McBride, andcyntr@aol.com
South Carolina Council of Teachers of Mathematics Joyce Moon, joycemoon@bellsouth.net
South Carolina Leaders of Mathematics Education Sandy Avinger, savinger@richlandone.org

## TEXAS

Association of Mathematics Teacher Educators
Sandra Cooper, sandra_cooper@baylor.edu
Fort Bend Council of Teachers of Mathematics (Texas)
Alena McClanahan, alena.mcclanahan@fortbend.k12.tx.us
Texas Association of Supervisors of Mathematics
Tricia Rothenberg, mathweb99@gmail.com
Texas Council of Teachers of Mathematics
Martha Godwin, mgodwin@qcisd.net

UTAH
Utah Council of Teachers of Mathematics
Andrew Glaze, aglaze@dsdmail.net
Benjamin Banneker Association, Inc.
Roni Ellington, roni.ellington@morgan.edu
Council for Technology in Mathematics Education Stephanie Cooperman, scooperman@chatham-nj.org
Council of Presidential Awardees in Mathematics
Donald Scheuer, mathguy1@verizon.net
North American Study Group on Ethnomathematics
Blidi Stemn, catbss@hofstra.edu
National Council of Supervisors of Mathematics
Ruth Harbin Miles, smilesalot4u2@yahoo.com
Society of Elementary Presidential Awardees
Martha Short, mshort@Idd.net
TODOS: Mathematics for ALL
Maria Torres, met@edcom.us
Women and Mathematics Education
Dorothy Buerk, buerk@ithaca.edu

## Affiliates-at-Large

Adult Numeracy Network
Lynda Ginsburg, ginsburg@rci.rutgers.edu
Association of Mathematics Teacher Educators
Sandra Cooper, sandra_cooper@baylor.edu
Association of State Supervisors of Mathematics
Charles Watson, chaswatson@sbcglobal.net
Benjamin Banneker Association, Inc.
Roni Ellington, roni.ellington@morgan.edu
Council for Technology in Mathematics Education
Stephanie Cooperman, scooperman@chatham-nj.org
Council of Presidential Awardees in Mathematics
Donald Scheuer, mathguy1@verizon.net
North American Study Group on Ethnomathematics
Blidi Stemn, catbss@hofstra.edu
National Council of Supervisors of Mathematics
Ruth Harbin Miles, smilesalot4u2@yahoo.com
Society of Elementary Presidential Awardees
Martha Short, mshort@ldd.net
TODOS: Mathematics for ALL
Maria Torres, met@edcom.us
Women and Mathematics Education
Dorothy Buerk, buerk@ithaca.edu

## Officers and Committees

## NCTM Board of Directors

Linda M. Gojak, President
John Carroll University, Ohio
J. Michael Shaughnessy, Past President

Portland State University, Oregon
Kichoon Yang
Executive Director, NCTM
Robert Q. Berry, III
University of Virginia
Margaret (Peg) Cagle
Los Angeles Unified School District
Dane R. Camp
Iolani School, Hawaii
Anne M. Collins
Lesley University, Massachusetts
Debbie Duvall
Elk Island Public Schools, Alberta
Mark W. Ellis
California State University, Fullerton
Karen J. Graham
University of New Hampshire
Gladis Kersaint
University of South Florida
Latrenda Knighten
East Baton Rouge Parish School System, Louisiana
Matthew R. Larson
Lincoln Public Schools, Nebraska
Kimberly Mueller
Florence L. Walther School, New Jersey
Jonathan (Jon) Wray
Howard County Public Schools, Maryland

NCTM thanks our 2012 Dallas Regional Conference Committees for their generous support and dedication in planning this year's Regional Conference.

Dallas Program Committee
Kathleen Mittag, Chair
San Antonio, Texas
Don Balka
LaPaz, Indiana
James Barta
Salt Lake City, Utah
Rocio Benedicto
El Paso, Texas
Carol Edwards
Chandler, Arizona
Paula Moeller
Johnson City, Texas
James Rubillo
Willow Grove, Pennsylvania
Sharon Taylor
Statesboro, Georgia
Dallas Volunteer Committee
Whitney Evans, Chair
Plano, Texas
Cathy Banks
Denton, Texas
Ann May
McGregor, Texas
Grace Ann McKay
Denton, Texas


## Floor Plans

## Dallas Convention Center

## Level 1



## Exhibit Hall Floor Plan



## Exhibitor Directory

## A

## ALEKS Corporation

## Booth 504

Irvine, California
PH: 714-245-7191 x152
www.aleks.com
ALEKS is a web-based math program that provides truly individualized learning and assessment correlated to the Common Core State Standards and all 50 states' standards. Using Artificial Intelligence, ALEKS accurately assesses a student's knowledge and delivers targeted instruction on the exact topics the student is ready to learn.

## Algebra Readiness Educators, LLC

 Booth 420Orange, Texas
PH: 409-543-6755
www.AlgebraReadinessEducators.com
Algebra Readiness Educators, LLC provides a series of books to build students' skill base for success in 6th, 7th, 8th, and Algebra I classrooms. Our series was developed using the Common Core Standards as well as the newly adopted Texas TEKS. The Algebra Readiness Builder series provide skill practice on numerous mathematical concepts.

## Arcademics

Booth 612
Lawrence, KS
www.arcademics.com
Arcademics creates online educational multiplayer video games that engage students in learning. Our research-based and standards-aligned educational games enable students to learn and have fun through the excitement of multiplayer gaming.

## B

Bedford, Freeman \& Worth (BFW) Publishers
Booth 210
New York, NY
http://highschool.bfwpub.com
Benjamin Banneker Association
Booth 620
Richmond, VA

## Borenson and Associates, Inc.

## Booth 702

Allentown, PA
PH: 800-993-6284 FX: 610-398-7863

## www.borenson.com

Hands-On Equations ${ }^{\circledR}$ demystifies the learning of algebra for students in grades 3-9. Since 1990 more than 50,000 teachers have attended the Making Algebra Child's Play® workshop. Visit our website www.borenson.com for our public workshop schedule and to register for our FREE introductory webinars.

## Box Cars \& One-Eyed Jacks <br> Booth 406

Edmonton, Alberta
PH: 780-440-6284 FX: 780-440-1619

## www.boxcarsandoneeyedjacks.com

Award winning math game resources and workshops all tied to the Common Core. We offer the widest selection of dice, cards, and other great manipulatives. Come to our workshops!

## C <br> Carnegie Learning, Inc. <br> Booth 403 <br> Pittsburgh, PA <br> PH: 888-851-7094 FX: 412-690-2444 <br> www.carnegielearning.com

Carnegie Learning, Inc. is a leading publisher of innovative, research-based math curricula for middle school, high school, and post-secondary students. Providing differentiated instruction to schools across the United States, Carnegie Learning is helping students to succeed in math, creating a gateway to graduation, and preparing them for the 21st century.

## Casio America, Inc.

Booth 314
Dover, NJ

## Classroom Products Warehouse <br> Booth 510

Vernon Hills, IL
PH: 888-271-8305 FX: 888-280-6110

## www.shopcpw.com

CPW offers math and science instructional materials at the lowest guaranteed prices.

## CORD Communications, Inc.

Booth 413
Waco, TX

## CPM Educational Program

Booth 417
Sacramento, CA
PH: 209-745-2055 FX: 209-745-7655
www.cpm.org
CPM is a comprehensive, standards based mathematics program for grades 6 through calculus that provides professional development workshops and individual mentoring so that teachers can effectively implement problem-based lessons in student-centered settings. CPM also offers curriculum materials that are based on the methods taught in the workshops. CPM courses meet the Common Core State Standards.

## Creative Mathematics

Booth 319
Arcata, California
PH: 800-841-5193 FX: 707-826-1780

## www.creativemathematics.com

Creative Mathematics is a leading educational consulting company that has provided 23 years of teacher training workshops in the United States, Canada, and internationally. Creative Mathematics also offers books, music, supplies and manipulatives.

## D

## D \& H Distributing Company

## Booth 214

Harrisburg, PA
PH: 800-340-1006 FX: 717-255-6750

## www.buycalcs.com

D \& H is the nation's \#1 distributor of calculators to schools.

## Didax Inc

Booth 505
Rowley, MA

## Dinah-Might Adventures

Booth 320
San Antonio, TX
PH: 800-993-4624 FX: 210-698-0095

## www.dinah.com

Dinah-Might Adventures is an educational publishing and consulting company owned by Dinah Zike, author and speaker. Her books are known for their innovative ways to use "Foldables $®$ " for teaching all subjects and grade levels. She also offers professional development at the Dinah Zike Academy, a unique trainer-of-trainers facility.

# Exhibitor Directory 

## E

## EAI Education

## Booth 602

Oakland, NJ
PH: 800-770-8010 FX: 201-891-5689

## EAleducation.com

EAl offer s a full line of math manipulatives, resource books, tradebooks, interactive whiteboard software, games, puzzles, and calculators for all grade levels. EAI proprietary products include SmartPal® sleeves and guidebooks, QuietShape ${ }^{\circledR}$ manipulatives, Katie Kubes®, Flip Charts, Money Activity Centers, Slide N' Measure $®$ compasses, X-Y Coordinate Geoboards, GeoModel $®$ folding shapes, and "I Have, Who Has?" games plus many others.

Educators Outlet, Inc.
Booth 216
Timnath, CO

## ETA hand2mind

Booth 310
Vernon Hills, IL

## ExploreLearning

Booth 206
Charlottesville, VA

## F

First in Math - Suntex International Booth 411
Easton, PA

## H

## Heinemann Publishing

## Booth 608

Portsmouth, New Hampshire
PH: 800-541-2086 PH: 800-225-5800
FX: 603.431.7894
www.heinemann.com
Heinemann is a publisher of professional resources and a provider of educational services for K-12 educators, including ELL and dual language / bilingual. Our commitment to our work and customers' enthusiastic response to our offerings has made us the leading publisher in this area.

Houghton Mifflin Harcourt
Booth 110
Austin, TX

## I

## IXL Learning

## Booth 503

San Mateo, CA
PH: 855-255-7700 FX: 650-372-4301

## www.IXL.com

IXL is a math practice website completely aligned to all state standards and the Common Core. IXL offers unlimited questions in Pre-K-High School math in a fun, visually-stimulating format that students love. Plus, teachers can view detailed reports on student's progress and trouble spots-including complete question histories for individuals.

## J

Johnny's Key
Booth 302
Trevorton, PA

## K

Kamico Instructional Media Booth 613
Austin, TX

## Kendall Hunt Publishing Co. <br> Booth 304 <br> Dubuque, Iowa <br> PH: 563-589-1000 FX: 563-589-1071 <br> www.kendallhunt.com

Key Curriculum
Booth 402
Emeryville, CA
PH: 510-595-7000 FX: 510-595-7047
www.keycurriculum.com
Key Curriculum provides dynamic mathematics learning tools and professional development programs that support teachers and students alike. Our software-The Geometer's Sketchpad, Fathom, and TinkerPlots—brings mathematics to life and helps teachers address the Common Core State Standards in a way that is powerful, engaging, and fun.

## L

Learning Wrap-Ups, Inc.
Booth 211
Layton, UT
Lone Star Learning
Booth 212
Lubbock, TX

## M

Math Olympiads
Booth 218
Bellmore, NY
Math Science Tees
Booth 513
Corinth, TX
Math Teachers Press, Inc. Booth 305
Minneapolis, Minnesota
PH: 1-800-852-2435 FX: 952-546-7502
www.movingwithmath.com
The Moving with Math® Pre-K-12 researchbased intervention math programs integrate manipulatives, problem solving, and games with scripted lesson plans. Built-in assessment monitors achievement, measures progress, and differentiates instruction for RTI. Results are scientifically based. Web-based technology and professional development are available. Programs meet the needs of Special Ed.

## McGraw-Hill Education

## Booth 311

Columbus, Ohio
PH: 614.430.4400 FX: 614.430.4272

## www.mheonline.com

McGraw-Hill Education - McGraw-Hill Education provides preK-12 math curriculum BUILT for the CCSS and designed to support every classroom. Our innovative programs include the latest iBooks, cutting edge digital solutions, and market leading programs such as McGraw-Hill My Math, Glencoe Math, and Everyday Mathematics.

## MIND Research Institute

Booth 202
Santa Ana, CA

## Mountain Math/Language, LLC Booth 604

Ogden, Utah
PH: 801 475-1963 FX: 801 475-1995
www.mtmath.com
Sole Source provider of spiral review products in math, language, science, and U.S. history. Available as bulletin boards, centers, games, and online.

## N

Nasco
Booth 309
Fort Atkinson, WI

## Exhibitor Directory

## National Council of Supervisors of Mathematics

Booth 616
Denver, CO

## Neufeld Learning Systems, Inc.

 Booth 409London, Ontario
PH: 1-866-429-6284 FX: 519-657-3220
www.neufeldlearning.com
NLSI provides a combination of browser-based technology solutions and customized professional development for reaching all learners of mathematics in K to Algebra 1. UMath X and Understanding Numeration provide teachers and students with the support and resources to meet and exceed proficiency levels as defined by the CCSS, STAAR, and VA SOLs.

## NewPath Learning

Booth 405
Victor, NY
PH: 800-507-0966 FX: 800-507-0967
www.newpathlearning.com
NewPath Learning's Curriculum Mastery Games, Flip Charts, Interactive Whiteboard Software, Visual Learning Guides, and Study Cards provide comprehensive coverage of the current national and state standards for Math, Science, Language Arts and Social Studies for Grades K - High School. The company's products are supplemented with web-based activities at www.newpathlearning.com.

## 0

## Oklahoma Council of Teachers of Mathematics

Booth 618
Still water, OK
On the Avenue Marketing
Booth 209
Weston, MA
Origo Education, Inc.
Booth 104
Saint Charles, MO

## P

Pearson
Booth 410
Upper Saddle River, NJ

## R

Renaissance Learning
Booth 509
Wisconsin Rapids, WI
PH: 715-424-3636 FX: 715-424-4242

## www.renlearn.com

Daily and periodic progress-monitoring assessments for math provide teachers with vital information about each student's math skills development by combining Renaissance Learning $^{\text {TM }}$ software, such as Accelerated Math ${ }^{\text {TM }}$, MathFacts in a Flash ${ }^{\text {TM }}$, and STAR Math ${ }^{\text {TM }}$, and classroom-proven best-teaching practices. The result: dramatically improved math skills for every grade-1-12 student.

## SingaporeMath.com <br> Booth 609

Oregon City, OR
Slide-A-Round Math Manipulatives, LLC
Booth 213
Rome, Georgia
PH: 706-506-8411
www.slidearoundmath.com
We offer a math manipulative numberline system that provides a visual representation to assist students in rounding whole numbers up to $10,000,000$ as well as other manipulatives for weight, elapsed time, fractions, money, and decimals. Low vision manipulatives, teachers' aids, and complimentary handouts are also available at www.slidearoundmath.com.

## Southern Methodist University, Summons School of Education <br> Booth 418 <br> Dallas, TX

## Stenhouse Publishers

## Booth 414

Portland, Maine
PH: 8009889812 FX: 8008339164

## www.stenhouse.com

Stenhouse provides quality professional development resources by teachers, for teachers. Our goal is to provide educators with a set of proven strategies from which they can choose and adapt what will work best for their students and their own environment.

## T

Texas Instruments, Inc.
Booth 301
Dallas, TX
The Learning Carpet- TLC, Inc.
Booth 701
Huntsville, Ontario, Canada
PH: 705-789-8912 FX: 705-789-8016
www.thelearningcarpet.com
The Learning Carpet is a large $6^{\prime} 100$-square mat on which children walk squares. They learn to say and place number cards, use colored cards to create patterns and geometric shapes, and manipulate large clock hands and mapping pieces to develop a kinesthetic connection to abstract math concepts in all five strands.

The MarkerBoard People
Booth 401
Lansing, MI
ThinkThrough Math
Booth 514
Pittsburgh, PA

## V

Voyager Expanded Learning

## Booth 606

Brentwood, TN

## W

W.H, Freeman of Bedford, Freeman \& Worth (BFW) Publishing

## Booth 210

Hamilton, New Jersey
PH: 866-843-3715 FX: 609-689-9097

## www.whfreeman.com

Bedford, Freeman \& Worth (BFW) Publishers is a publishing house offering the most trusted source for print and digital resources. Freeman of BFW publishes the best-selling books for Advanced Placement* and on-level math courses across the spectrum. Find out why our AP Calculus and AP Statistics texts are the talk of this NCTM conference. Please visit our booth in the exhibit hall to see why.

## Walden University

Booth 317
Baltimore, MD
Whizz Education, Inc.
Booth 215
Seattle, WA

## Speaker Index

A
Adams, Mitzi ..... 222
Ahluwalia, Anoop ..... 139
Akhras, Asma ..... 116
Anderson, John ..... 216
Arias, Cecilia ..... 185
Armstrong, Julie ..... 189
Armstrong, Stephen. ..... 178
Assad, Dorothy ..... 204
B
Bacallao, Aldo ..... 42
Bacallao, Mary Kay ..... 155
Balka, Don ..... 2, 65, 117
Balisciano, Nicholas ..... 11
Ballew, Pat ..... 212
Barger, Rita ..... 124
Barnes, David ..... 48, 163
Beazley, Alison ..... 191
Bellman, Lonnie ..... 195
Bellman, Allan. ..... 218
Bequette, Sandra ..... 39
Bezuk, Nadine. ..... 89
Bishop, Judy ..... 209
Bismarck, Stephen ..... 91
Blue, Maria ..... 101
Boerst, Timothy ..... 188
Borenson ..... 36.1, 151.1
Boswell, Laurie ..... 159
Bradley, Janice. ..... 169
Bradsby, Shirley ..... 157
Bruun, Faye. ..... 144
Buckley, Lecretia ..... 88
Burnett, James ..... 201
Burrill, Gail ..... 148
Busbey, Katie ..... 203
C
Campbell, Nancy. . . . . . . . . . . 75
Campitelli, Maria ..... 29
Caplan, Seth ..... 51
Cargill, Dana ..... 176
Carrell, Nadia ..... 23
Carter, Traci ..... 33
Casa, Tutita ..... 90
Chaar, May ..... 154
Char, Deborah ..... 229
Chenal-Ducey, Michelle ..... 70
Choate, Laura ..... 85
Clark, Leah ..... 150
Clements, Douglas. ..... 167
Collins, Anne ..... 171
Collins, Francis ..... 173
Condon, Gregory ..... 182
Cooper, Sandi ..... 126
Corbett, Jonathan ..... 92
CPM Educational Program. . 82.1
Crowell, Robbin ..... 71
Cunningham, Elizabeth ..... 144
Cyrus, Vivian ..... 215
D
Davila, Anna ..... 32
Davis, Delilah ..... 223
DeLeeuw, Sarah ..... 41
DePaul, Debi ..... 170
DesOrmeaux, Julianne ..... 153
Diehl, John ..... 194
Dillon, Fred ..... 58, 69, 132
Disney, Andria ..... 100
Dolan, Dan ..... 37
Dorl, Jennifer ..... 116
Driesel, Deborah ..... 87
Duarte, Jonathan ..... 69
E
Edson, Alden ..... 67
Efflandt, Jennifer ..... 5
Ellis, Mark ..... 26, 165
English, Sherril ..... 129
Etgeton, Cassandra ..... 77
Epperson, James ..... 106
Everett, Kari ..... 44
F
Fanklin, Daniel ..... 177
Felling, Jane ..... 210
Fennell, Francis (Skip) ..... 131
Fewster, Darlene ..... 36
Fischer, Joyce. ..... 83
Flansburg, Scott ..... 1
Foerster, Paul ..... 106
Foor, Brett ..... 120
Ford, Kevin ..... 172
Ford, Shelton ..... 213
Foster, Charlotte ..... 31
Fox, Thomas ..... 53
Frantz, Kay .....  5
Franz, Dana. ..... 13
Fujimoto, Tomoe ..... 200
G
Gaines, Natasha ..... 186
Gavin, Kathy ..... 125
Gersbach, Amy ..... 34
Gillespie, Janet ..... 96
Gojak, Linda ..... 141, 165
Goldberg, Adam ..... 92
Grace, Ellen ..... 14
Graves, Julie ..... 161
Green, Rebecca ..... 192
Gupta, Dittika ..... 79
H
Haistings, Jeanine ..... 152
Hahn, Alice ..... 134
Hajj, Jennifer ..... 150
Hanan, Susan ..... 199
Hanley, Kristin ..... 213
Harry, Kathy ..... 168
Hartmann, Megan. ..... 195
Hauser, Sherryl .....  84
Haycock, Katie .....  50
Haynes, Ingrid ..... 25
Heckathorne, Deborah ..... 184
Heffernan, Cristina ..... 142
Helser, Susan ..... 35
Hill, Wendy E. ..... 95
Hirsch, Christian ..... 93
Hlabangana-Clay, An ..... 166
Holmes, Vicki-Lynn. ..... 11
Houghton Mifflin Harcourt. . 36.259.2, 82.3
Houghton, Shannon ..... 9
Hunter, Amy ..... 120
J
Jackson, Robert ..... 199
Jackson, William ..... 198
Jasper, Bill ..... 33
Johnson, Judy ..... 104
Johnson, Pete ..... 165
Johnston, Elisabeth

## Speaker Index

O'Dell, Robin ..... 68

## R

Olinick, Michael. ..... 175
Oliver, Scott ..... 183
ORIGO Education ..... 93.1
Ostien, Deborah ..... 52
Ozeri, Lea ..... 130
P
Padgett, Sharon. ..... 114
Pagano, Gail ..... 208
Panofsky, Ellen ..... 98
Parrott, Dr. Martha ..... 158
Payson, Christine ..... 149
Pearl, Barbara ..... 76
Pearson. . .13.1, 36.3, 58.1, 82.293.2, 128.1, 151.2
Penn, MW ..... 202
Phillips, Eileen ..... 91
Pierson, Caryl ..... 107
Pinter, Holly ..... 225
Podleski, Ann ..... 151
Pomeroy, Rachel ..... 75
Prater, Wendy ..... 220
Pugalee, David ..... 115

Redmond, Brittany. . . . . . . . . 150
Restivo, Nicholas . . . . . . . . . . 182
Reynolds, Diane. . . . . . . . . . . . 117
Riddle, Allison . . . . . . . . . . . . . 187
Rising, Jennifer . . . . . . . . . . . . 206
Robichaux, Rebecca . . . . . . . . 21
Robinson, Kathryn . . . . . . . . . . . 38
Rose, Ruth . . . . . . . . . . . . . . . . 36
Ross-Brown, Karen . . . . . . . . . 60

## S

Sack, Jacqueline . . . . . . . . . . . 140
Salerno, Tricia . . . . . . . . . . . . . . 19
Salinas, Shere . . . . . . . . . . . . . . 10
Saran, Rupam . . . . . . . . . . . . . 118
Scala, Kristin . . . . . . . . . . . . . . . 106
Scher, Daniel . . . . . . . . . . . . . . 109
Schielack, Jane . . . . . . . . . . . . 107
Schorr, Roberta . . . . . . . . . . . . . 34
Schrock, Connie . . . . . . . . . . . . 43
Schwartz, David. . . . . . . . . . . . 179
Seeley, Cathy. . . . . . . . . . . . . . 84

Seidlitz, John. . . . . . . . . . . . . . . 45
Sencibaugh, Joseph . . . . . . . . . 149
Sermons, Terry. . . . . . . . . . . . . 81
Serra, Michael . . . . . . . . . . . . 217
Sharp, Pat . . . . . . . . . . . . . . . . 231
Shaughnessy, J. Michael. . . . . . . 90
Shirley, Tory. . . . . . . . . . . . . . . . 19
Singleton, Lymeda . . . . . . . . . . . 190
Skowron, Aniceta . . . . . . . . . . . . 6
Sorto, M. Alejandra . . . . . . . . 147
Stanfield, Katrina. . . . . . . . . . . . 12
Stanfield, Deedee . . . . . . . . . . . 80
Staples, Megan . . . . . . . . . . . . . 52
Steketee, Scott . . . . . . . . . . . . 138
Stepan, Joseph . . . . . . . . . . . . . 25
Stern, Frances . . . . . . . . . . . . . 110
Stillman, Siegrid . . . . . . . . . . 169
Stowasser, Peter . . . . . . . . . . . . 30
Strauss, Thomas. . . . . . . . . . . . . 22
Strickland, Sharon . . . . . . . . . 127
Strom, April. . . . . . . . . . . . . . . 103
Strutchens, Marilyn . . . . . . . . 181
Sutton, Kim. . . . . . . . . . . . . . 123

Suzuka, Kara. . . . . . . . . 188, 197
Swarthout, Mary . . . . . . . . . . . 20

## T

Talley, Jana . . . . . . . . . . . . . . 208
Tam, Kai Chung. . . . . . . . . . . . . 196
Tan, Khoon Yu. . . . . . . . . . . . . 230
Tang, Greg . . . . . . . . . . . . . . . . 61
Tapper,John. . . . . . . . . . . . . . . . . 11
Telese, James. . . . . . . . . . . . . . . . 8
Thombs, Margaret . . . . . . . . . . . 83
Tickle, Brian. . . . . . . . . . . . . . . . 63
Tondevold, Christina . . . . . . . . . 72
Triplett, Kimberly . . . . . . . . . . . 19
Tsankova, Jenny . . . . . . . . . . 106
Turkovich, Dawn . . . . . . . . . . . . 59

V
Valent, Ruby . . . . . . . . . . . . . . 106
Vas, Joan. . . . . . . . . . . . . . . . . 109
Vennebush, Patrick . . . . 135, 188
Vessel, Amy. . . . . . . . . . . . . . 146
Votaw, Nikki . . . . . . . . . . . . . 224
Voyager Expanded Learning 197.1

## Program Advertisers <br> (in alphabetical order)

Borenson \& Associates

18, 42, Outside Back Cover
Inside Front Cover

Key Curriculum Press
COUPON on 73

Lone Star Learning . . . . . . . . . . . . . . . . . . . . COUPON on 73

Mu Alpha Theta
27

Singapore Math, Inc. Inside Back Cover

Univ. of Central Florida/JET Preparation Program . . . . . . . . . . 47

## NCTM Advertising

CONFERENCES
2013 Denver Annual Meeting . . . . . . . . . . . . . . . . . . . . . . 34
2013 Regional Conferences . . . . . . . . . . . . . . . . . . . . . . . 58
MEMBERSHIP
Member Showcase. . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
Membership Coupon . . . . . . . . . . . . . . . . . COUPON on 73
PUBLICATIONS
New Books. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8
Essential Understanding Series . . . . . . . . . . . . . . . . . . . . . 57

## W

Walsh, Terry. . . . . . . . . . . . . . 160
Walters, Terry. . . . . . . . . . . . . . 111
Ward, Kim. . . . . . . . . . . . . . . . . 65
Ward, Robin . . . . . . . . . . . . . 143
Warner, Lisa . . . . . . . . . . . . . . . 34
Wartowski, David . . . . . . . . . . . 56
Watson, Sandy . . . . . . . . . . . 111
Weilmuenster, Jacqueline . . . . 219
Wells, Lauren . . . . . . . . . . . . 127
Wheeler, Ann. . . . . . . . . . . . . . 74
Whisnant, Susie. . . . . . . . . . . . 134
White, Karen . . . . . . . . . . . . . . . 59
White, Sandra . . . . . . . . . . . . 211
Whitman, Carmen. . . . . . . . . 136
Wilcox, Virginia . . . . . . . . . . . . 97
Wilkerson, Trena . . . . . . . . . . . 57
Williams, Madelyn. . . . . . 27, 116
Williamson, Carolyn. . . . . . . . 128
Wisker, Nancy . . . . . . . . . . . . 130
Woodward, David . . . . . . . . . 125
Woody, Toni . . . . . . . . . . . . . 180
Wootton, Karen. . . . . . . . . . . . 99
Z
Zambak, V. . . . . . . . . . . . . . . . 33
Zeller, Erich . . . . . . . . . . . . . . . . 17

Enter to win a single-user license of your choice of Sketchpad, Fathom, or TinkerPlots!
All entrants will receive a promotional code good for $10 \%$ off and free shipping on all software and supplementals. Visit us at booth 402 for your chance to win!

## keycurriculum

BRINGING MATH TO LIFE

## 



## Want to Receive

# \$25 or \$50 in NCTM Bucks? 

## Join or Renew Today!

Stop by the NCTM
Member Showcase to Learn More

National council of
TEACHIRS OF MATHEMATICS

Enter to win a single-user license of your choice of Sketchpad, Fathom, or TinkerPlots!
All entrants will receive a promotional code good for $10 \%$ off and free shipping on all software and supplementals.

Visit us at booth 402 for your chance to win!

keycurriculum
Ma
chaw
Hil

## Education



## Extend Your NC'M Membership Additional Years and Save!

- Join or renew for two years and receive a $\mathbf{\$ 2 5}$ NCTM gift certificate.*
- Join or renew for three years and receive a \$50 NCTM gift certificate.*
* Gift certificates are valid at the NCTM Bookstore on site or for use on future purchases or conference registration. Not valid on previous renewals or purchases. Not valid on institutional, preK-8 school, and student e-memberships.

national coumch of
TEACHLRS OF MATHEMATICS


# Discovering Mathematics Common Core Edition 



A Singapore Math ${ }^{\ominus}$ middle school program that follows the Singapore Mathematics Framework and covers the Common Core State Standards.

# HANDS-ON EQUATIONS Making Algebra Childs's Play 

 (for grades 3-9)
## Free App for the iPad Available at the App Store!



Attend our sessions on Thursday and Friday from 10:00 a.m. to 11:00 a.m. in room D161. Since 1990, more than 50,000 teachers of grades 3-9 have attended the Making Algebra Child's Play workshop to learn how to demystify the teaching of algebra.

Contact us at 800-993-6284 to bring this training to your district! Borenson and Associates, Inc. - www.borenson.com


[^0]:    Complete Facilitator's Guide
    Grades 2-6/978-0-325-04363-0/2012/366pp guide + 2 DVD-ROMs/\$195.00 DVDs also sold separately. Visit Heinemann.com for details and compatibility information.

[^1]:    - Pre-K-2
    - Grades 3-5
    - Grades 6-8
    - Grades 9-12

[^2]:    223
    Using Quality Children's Literature to Promote Mathematical Thinking (Pre-K-2) Session
    This presentation will demonstrate through application the theoretical framework for using quality children's literature in pre-K-grade 2 classrooms. Experience hands-on, Common Core State Standards-aligned activities you can easily apply to your own classrooms.

    ## Delilah Davis

    National Literacy Professional Development Consortium, Houston, Texas

    Ingrid Haynes
    National Literacy Professional Development Consortium, Houston, Texas

[^3]:    * Conference discount not valid on sale items.

