Welcome to the 66th Delegate Assembly

April 16, 2015 • Boston
NCTM Delegate Assembly
Update

Diane Briars, President
National Council of Teachers of Mathematics

NCTM Delegate Assembly
NCTM 2015 Annual Meeting & Exposition
Boston
NCTM Mission Statement

NCTM is the public voice of mathematics education, supporting teachers to ensure equitable mathematics learning of the highest quality for all students through vision, leadership, professional development, and research.
NCTM Foundational Priorities

- Access and Equity
- Advocacy
- Curriculum, Instruction, and Assessment
- Professional Development
- Research
- Technology
Board of Directors 2014-2015

- Diane Briars  
  President
- Linda Gojak  
  Past President
- Bob Doucette  
  Executive Director
- Margaret (Peg) Cagle  
- Karen Graham  
- Gladis Kersaint  
- Jonathan (Jon) Wray
- Florence Glanfield
- Ruth Harbin Miles
- Jane Porath
- Rose Mary Zbiek
- Jennifer Bay-Williams
- Paul Kelley
- Cathy Martin
- Trena Wilkerson
Board of Directors
2015-2016

- Diane Briars
  President
- Matt Larson
  President-Elect
- Bob Doucette
  Executive Director
- Florence Glanfield
- Ruth Harbin Miles
- Jane Porath
- Rose Mary Zbiek
- Jennifer Bay Williams
- Paul Kelley
- Cathy Martin
- Trena Wilkerson
- Nadine Bezuk
- John SanGiovanni
- Denise Spangler
- Marilyn Strutchens
Major Initiatives

- *Principles to Actions: Ensuring Mathematical Success for All*
- NCTM.org redesign
- NCTM-Hunt Institute video project
- Professional learning strategic planning
- Governance structure assessment and Board development
- Research Committee
  *Grand Challenges in Mathematics Education*
Major Initiatives

Principles to Actions: Ensuring Mathematical Success for All
Principles to Actions: Ensuring Mathematical Success for All

• The principles and actions, including specific teaching practices, essential for a high-quality mathematics education for all students

• What it will take to turn the opportunity of the Common Core into reality in every classroom, school, and district
Principles to Actions: Ensuring Mathematical Success for All

- Supportive conditions, structures, and policies required to give all students the power of mathematics.

- Focus on teaching and learning

- Engage students in mathematical thinking

- Ensure that mathematics achievement is maximized for every student

- It’s not specific to any standards; it’s universal
**Principles to Actions**  
**Outreach & Resources**

- *Principles to Actions* Executive Summary  
  (in English and Spanish)

- *Principles to Actions* overview presentation

- *Principles to Actions* professional development guide  
  (Reflection Guide)

- Mathematics Teaching Practices presentations  
  - Elementary case, multiplication (Mr. Harris)
  - Middle school case, proportional reasoning (Mr. Donnelly) (in English and Spanish)
  - High school case, exponential functions (Ms. Culver)

- *Principles to Actions* Spanish translation*
Principles to Actions
Effective Teaching Practices Toolkit

- Illustrate the Teaching Practices in Grades K-5, 6-8, 9-12
- PowerPoint slides, illustrative cases/video clips, tasks, activities
- Working Group:
  Peg Smith (chair); Victoria Bill, Melissa Boston, Fred Dillon, Amy Hillen, DeAnn Huinker, Stephen Miller, Mary Lynn Raith, Mike Steele, Chonda Long (NCTM).
- Partnership with Institute for Learning, University of Pittsburgh, for video clips and some other resources.
# Principles to Actions
Mathematics Teaching Practices Toolkit
High School

<table>
<thead>
<tr>
<th>Featured Teacher</th>
<th>Ms. Culver</th>
<th>Jeffrey Ziegler</th>
<th>Debra Campbell</th>
<th>Shalunda Shackelford</th>
<th>Wobberson Torchon</th>
<th>Erica Gandy</th>
<th>Jamie Bassham</th>
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</thead>
<tbody>
<tr>
<td>Grade Level/Subject</td>
<td>10</td>
<td>11-12</td>
<td>Geometry</td>
<td>Algebra 1</td>
<td>Algebra 1</td>
<td>Geometry</td>
<td>Algebra 2</td>
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<tr>
<td>Task</td>
<td>Pay it Forward</td>
<td>S-Pattern</td>
<td>Playground</td>
<td>Bike &amp; Truck</td>
<td>Calling Plans1</td>
<td>Amazing Amanda</td>
<td>Missing Function</td>
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<tr>
<td>Content</td>
<td>A</td>
<td>A</td>
<td>G</td>
<td>F-IF</td>
<td>A-CED</td>
<td>???</td>
<td>A-APR</td>
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<td>video</td>
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<table>
<thead>
<tr>
<th>Effective Mathematics Teaching Practices</th>
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<tbody>
<tr>
<td>Establish mathematics goals to focus learning</td>
</tr>
<tr>
<td>Implement tasks that promote reasoning and problem solving</td>
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<tr>
<td>Use and connect mathematical representations</td>
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<td>Facilitate meaningful mathematics discourse</td>
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<td>Pose purposeful questions</td>
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<tr>
<td>Build procedural fluency from conceptual understanding</td>
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<tr>
<td>Support productive struggle in learning mathematics</td>
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<tr>
<td>Elicit and use evidence of student thinking</td>
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Principles to Actions
Guiding Principles Toolkit

• Illustrate the Guiding Principles in Grades PK-5, 6-8, 9-12, and for different audiences (teacher leaders, administrators)
• PowerPoint slides, illustrative cases/video clips, tasks, activities
• Working Group:
  Gary Martin. Marilyn E. Strutchens (Co-Chairs), Robert Berry, Dan Brahier, Skip Fennell, Matt Larson, Joanne Wells, Dave Barnes, (NCTM).
NCTM *Principles to Actions* 
Toolkit Sessions

- **Moving to Action: Effective Teaching Practices in the Elementary Grades**  
  Thursday, April 16, 2015: 3:30 PM-4:30 PM  
  Commonwealth C (Westin) DeAnn Huinker, Victoria L. Bill, Amy Hillen

- **Moving Principles into Actions: Leading Change in Mathematics Programs (Elementary)**  
  Friday, 4/17 12:30pm – 1:30pm, Room 103 (BCEC) Melissa Soto, Skip Fennell,

- **Moving to Action: Effective Teaching Practices in the Middle Grades**  
  Friday, 4/17 9:30am – 10:30am, Room 207 (BCEC), Mike Steele, Margaret Smith

- **Moving Principles into Actions: Leading Change in Mathematics Programs (6-8)**  
  Thursday, 4/16 3:30pm – 4:30pm, Grand Ballroom A (Westin) Robert Berry, Marilyn Strutchens, Joanne Wells

- **Moving to Action: Effective Teaching Practices in the Secondary Grades**  
  Friday, 4/17 2:00pm – 3:00pm, Room 209 (BCEC) Melissa Boston, Stephen Miller

- **Moving Principles into Actions: Leading Change in Mathematics Programs (9-12)**  
  Thursday, 4/16 2:00pm – 3:00pm, Commonwealth C (Westin) W. Gary Martin, Dan Brahier
Major Initiatives

NCTM-Hunt Institute video project: *Teaching and Learning Mathematics with the Common Core*

- Enhance public understanding of what students need to know for college and career
- Why conceptual understanding requires a different approach
- Teachers, educators, leaders, and parents with classroom video
- Primarily for the public; useful to educator outreach
Teaching and Learning Mathematics with the Common Core Video Series

- Mathematics in the Early Grades
- Developing Mathematical Skills in Upper Elementary Grades
- Building Conceptual Understanding in Mathematics
- Mathematical Foundations for Success in Algebra
- Preparation for Higher Level Mathematics
- Parents: Supporting Mathematics Learning
- Standards for Mathematical Practice

NCTM

National Council of Teachers of Mathematics
Mathematics in the Early Grades

Professional Learning
Strategic Planning

Goal:
To design a coherent, comprehensive approach to our professional learning offerings

• Fall Annual Meeting (beginning 2020)

• Function/role of Annual meeting, Regional meetings, Interactive Institutes, Research Conference, online professional learning opportunities

• What to initiate? What to stop doing?
February 2015 Interactive Institute

- Effective Teaching with Principles to Actions: Implementing College- and Career-Readiness Standards
2015 Interactive Institutes

- Algebra Readiness for Every Student, Grades 6-8  
  July 20-22, Chicago

- Connecting Number and Operations in the Classroom, Grades PK-5  
  July 23-25, Chicago

- Engaging Students in Learning: Mathematical Practices and Process Standards  
  Grades 3-8  
  Grades 9-12  
  July 27-29  
  July 30-August 1, Anaheim
NCTM Regional Conferences

Atlantic City
October 21-23, 2015

Minneapolis
November 11-13, 2015

Nashville
November 18-20, 2015
Major Initiatives

• Governance Structure Assessment and Board Development
  – Publishing Committee
  – Classroom Resources Committee

• Research Committee
  *Grand Challenges in Mathematics Education*
NCTM as an Equity Organization

• Establish a process to promote diversity among NCTM leaders and emerging leaders;

• Explicitly promote diversity among leaders and emerging leaders in terms of involvement in committees, publication authorship and focus, and presentations at conferences/institutes
Advocacy and Outreach

- NCTM President briefing for Congressional staff on reauthorization of the Elementary and Secondary Education Act
- NCTM Legislative Platform for the 114th Congress
- Mathematics Common Core Coalition
- NCTM Staff Co-chair of STEM Education Coalition
- NCTM Staff on House STEM Caucus Steering Committee
When publishing electronic materials that are intended to be used by students, NCTM will make every effort to publish copies in both English and Spanish. This would include, but not limited to, lesson samples, worksheets, and other materials used by students that are provided through the very valuable NCTM Illuminations resource.

Approved 4-13-15: 13-0-0
NCTM Board Actions on Delegate Assembly Resolutions

Affiliates-at-Large Caucus

RESOLUTION O.NR.14.01
The name for NCTM’s “Affiliates-at Large” be changed to a name that better reflects who and what these organizations represent.
For example: Special Focus Affiliates
Specific Focus Affiliates

The NCTM Board has already disapproved a similar resolution.

NCTM Board Motion:
This resolution will be taken into consideration as part of a review of the overall governance structure of NCTM.

Approved July 10 13-0-0
Central Caucus

RESOLUTION O.NR.14.02
The ASC creates pathways/plans/possible ways for Affiliates to adapt their annual meetings to the new schedule 2020.

The NCTM Board recommends that Affiliates receive guidance from NCTM on a case-by-case/as needed basis in facilitating NCTM’s transition to a Fall Annual Meeting and resolving any Affiliate meeting conflicts.
Más o Menos: Exploring Estimation in a Bilingual Classroom

Higinio Dominguez
Melissa Adams

Teaching Children Mathematics, August 2013
Linking Research and Practice
Outstanding Publication Award

Multidimensional Teaching

Robert Q. Berry III
Mark W. Ellis

Mathematics Teaching in the Middle School,
October 2013
Equivalent Expressions Using CAS and Paper-and-Pencil Techniques

Nicole L. Fonger

Mathematics Teacher, May 2014