

NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS

www.nctm.org

NCTM Delegate Assembly Update

Linda Gojak, President

National Council of Teachers of Mathematics

John Carroll University Cleveland, Ohio

NCTM Delegate Assembly
NCTM 2014 Annual Meeting & Exposition
New Orleans



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



Agenda

- Greetings from the NCTM Board of Directors
- Report on Major Initiatives
- 2013 Resolutions
- NCTM Affiliate Leadership Circle:
 Continuing Members and New Members
- Presentation of Charter to New Affiliates
- Presentation of Affiliate Publication Award



Board of Directors 2013-2014

- Linda Gojak
 President
- Diane Briars
 President Elect
- Bob Doucette
 Executive Director
- Dane Camp
- Robert Berry III
- Mark Ellis
- Latrenda Knighten

- Margaret (Peg) Cagle
- Karen Graham
- Gladis Kersaint
- Jonathan (Jon) Wray
- Florence Glanfield
- Ruth Harbin Miles
- Jane Porath
- Rose Mary Zbiek



Board of Directors 2014-2015

- Diane BriarsPresident
- 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



Major Initiatives

- NCTM Board Strategic Planning
- Principles to Actions: Ensuring Mathematical Success for All

Common Core State Standards Resources



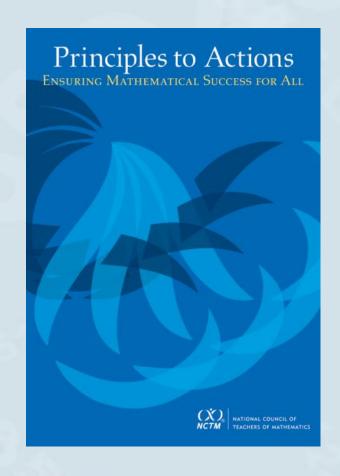
Major Initiatives

Principles to Actions:

Ensuring

Mathematical Success

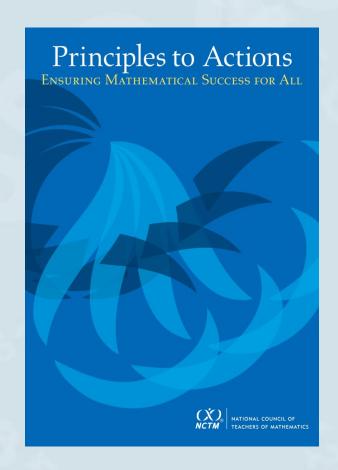
for All





Principles to Actions: Ensuring Mathematical Success for All

- The principles and actions, including specific teaching practices, that are 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

- Describes the supportive conditions, structures, and policies required to give all students the power of mathematics.
- Focuses on teaching and learning
- Engages students in mathematical thinking
- How to ensure that mathematics achievement is maximized for every student
- It's not specific to any standards; it's universal



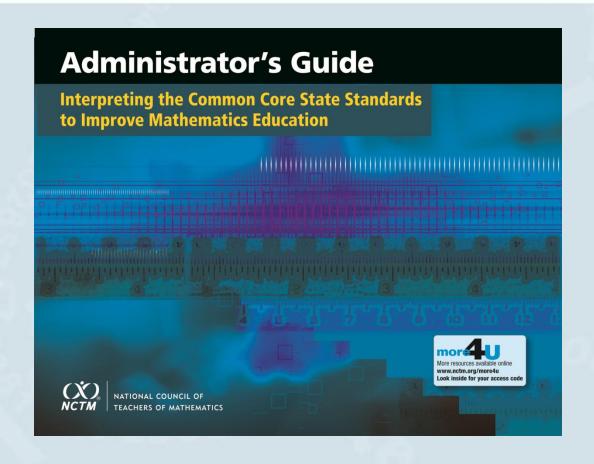
Major Initiatives

Common Core State Standards Resources

- Publications NCTM and co-publications
 - Making It Happen
 - Administrator's Guide
 - Common Core Mathematics in a PLC at Work (with Solution Tree)
- www.nctm.org/ccssmresources
- Mathematics Common Core Coalition: mathccc.org



Common Core State Standards





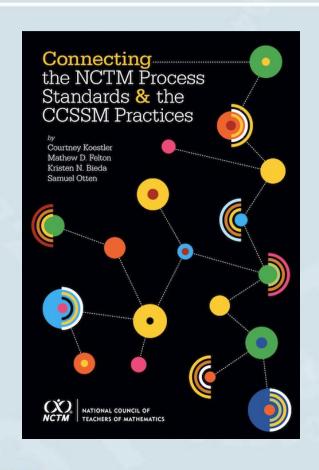
Common Core Resources

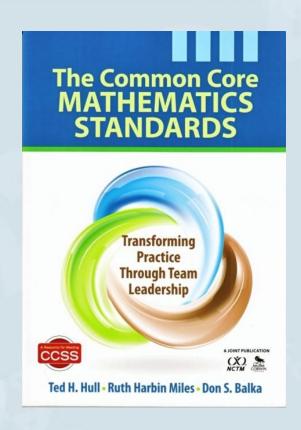


nctm.org/ccssmresources



Common Core Resources





nctm.org/ccssmresources



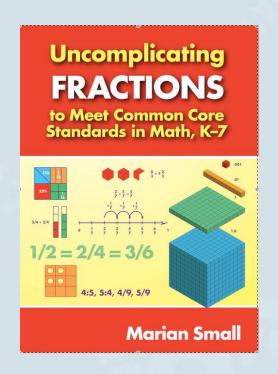
Common Core Resources

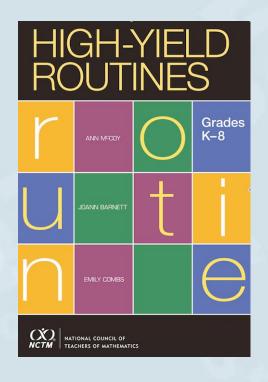
- Implementing the Common Core State Standards through Mathematical Problem Solving, Grades K-2, 3-5, 6-8
- Implementing the Common Core State Standards through Mathematical Problem Solving, Grades 6-8

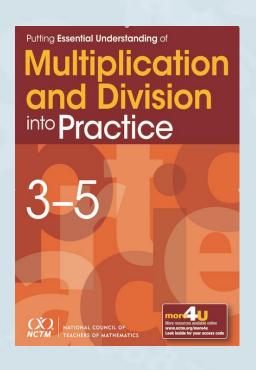
nctm.org/ccssmresources



Supporting Teachers

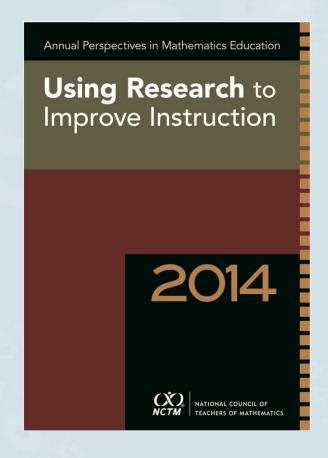






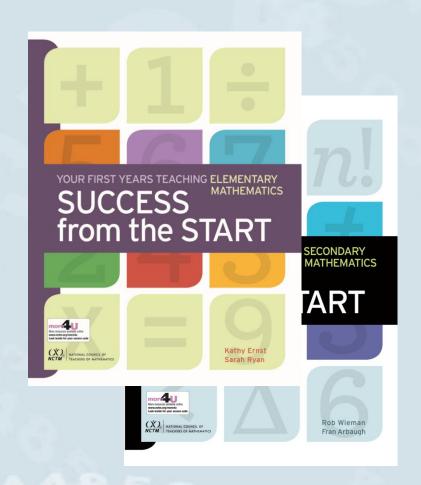


 Annual Perspectives in Mathematics Education 2014: Using Research to Improve Instruction



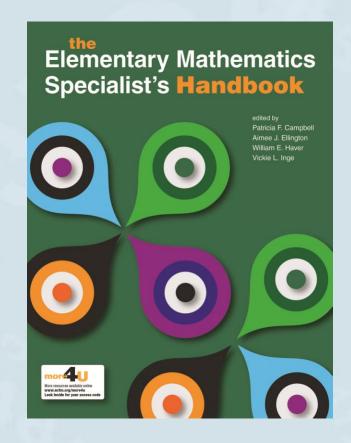


- Success from the Start: Your First Years Teaching Elementary Mathematics
- Success from the Start: Your First Years Teaching Secondary Mathematics



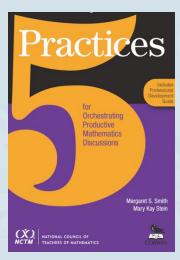


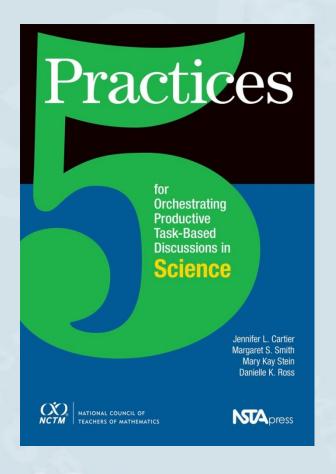
 The Elementary Mathematics Specialist's Handbook





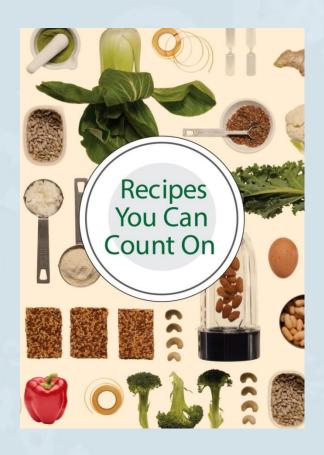
 5 Practices for Orchestrating Task-Based Discussions in Science







 Recipes You Can Count On (MET Cookbook)





Interactive Institutes

February 2014 Interactive Institutes

- Cutting to the Common Core for PK-12 Teachers and School Leaders
- Cutting to the Common Core for Grades 9-12
- Cutting to the Common Core for Grades PK-5
- Cutting to the Common Core for School Leaders



2014 Interactive Institutes



Algebra Readiness for Every Student, Grades 6-8 (July 7-9, San Diego)

- Connecting Number and Operations in the Classroom, Grades PK-5 (July 10-12, San Diego)
- Engaging Students in Learning: Mathematical Practices and Process Standards, Grades 9-12 (July 31- August 2, Chicago)

NCTM Regional Conferences

Indianapolis

October 29-31, 2014

Richmond

November 12-14, 2014

Houston

November 19-21, 2014



Linking Research and Practice Outstanding Publication Award

Developing Quantitative Mental Imagery

Teaching Children Mathematics, October 2012

Jonathan N. Thomas
Pamela D. Tabor



Linking Research and Practice Outstanding Publication Award

Launching Complex Tasks

Mathematics Teaching in the Middle School, August 2012

Kara J. Jackson
Emily C. Shahan
Lynsey K. Gibbons
Paul A. Cobb



Linking Research and Practice Outstanding Publication Award

Connecting Research to Teaching: Reasoning about Quantities That Change Together

Mathematics Teacher, May 2013

Heather Lynn Johnson



Research Briefs and Clips

 Linking Research and Practice

nctm.org/clipsandbriefs

BuzzHub presentations



Research Brief

Sk Which Ir



Instruction

Research Clips

Dectaration which is effective for stadens teaches use the floor stadens to check the stadens who single study can provide action to the study can provide acting in bottor than mothe particular learning goal beer essales. But by detecting put across a sect of studies that use procedures, observations emit data seem to produce similar that is come to produce similar than the student to the produce similar than the students of t

Weselectheretwolearning amount of data point to effinstruction. These guds are smooth, and accurate execution of relationship procedures, and ideas (Browand Camenter 1992).

Skill Efficiency

A large set of studies cor within the process-product na between what teachers do in and what students learn as a product) supplies the best of attems forlinks between tea and Grouws (1977) examine more than 100 third, and for year period. Results from th effectiveness was associated dustere whole-class instructeacher; a task-focused enviro more homework; and classro problems. Evertson and I junior high school teachers effective mathematics teach less effective teachers did, w order product questions. The well-organized disservorus f emphasized whole-class instr to seatwork and practice.

1906 ASSOCIATION DRI

What are features of effective instruction of number with respect to skill and conceptual understanding?

Two features of instruction are especially likely to help students develop conceptual understanding of the mathematics topic they are studying:

- · Attending explicitly to connections among facts, procedures, and ideas
- Encouraging students to wrestle with the important ideas in an intentional and conscious way

In essence, if instruction aims to help students develop conceptual understanding, then it must make explicit the crucial relationships that lie at the heart of such understanding.

Research findings suggest the following: mathematics teaching that facilitates skill efficiency

- · is rapidly paced;
- includes modeling by the teacher with many teacher-directed, product type of questions;
- displays a smooth transition from demonstration to substantial amounts of error-free tractice.

The teacher plays a central role in organizing, pacing, and presenting information to meet well-defined learning goals.

Many of the studies that focused on conceptual development also reported that students' skills increased at a level equal to or greater than those of students in the control groups. Students who mastered skills under conceptually supportive conditions acquired different competencies than those who were trained with a strict focus on developing skill—they were better able to adapt their skills to solve new kinds of tasks.

Based on Effective Teaching for the Development of Skilland Conceptual Understanding of Number: What is Most Effective?

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Position Statements http://www.nctm.org/about/

- Supporting the Common Core State Standards for Mathematics
- Formative Assessment
- Mathematics in Early Childhood Learning
- Teaching Mathematics to English Language Learners
- Preparing Pre-K-12 Teachers of Statistics
- Teacher Mentorship



Advocacy and Outreach

- NCTM Legislative Platform for the 113th Congress
- Mathematics Common Core Coalition
- NCTM Staff Co-chair of STEM Education Coalition
- NCTM Staff on House STEM Caucus Steering Committee





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