

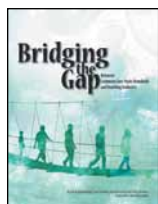
### BOOKS

#### FROM NCTM

Individual NCTM members receive a 20 percent discount on NCTM publications. To order, visit the NCTM online catalog at [www.nctm.org/catalog](http://www.nctm.org/catalog), or call toll free (800) 235-7566 to order or request a free print catalog.

#### **Bridging the Gap between Common Core State Standards and Teaching Statistics**

*Pat Hopfensperger, Tim Jacobbe, Deborah Lurie, and Jerry Moreno, 2012. Gr. pre-K–8. 272 pp., \$27.95 paper. ISBN 978-0-983937-51-7; stock no. 14444. National Council of Teachers of Mathematics; [www.nctm.org](http://www.nctm.org).*



This book contains activities that may be used to teach statistics to students in K–8. It provides teachers with step-by-step materials and plans that can be implemented in their classrooms.

The book contains good ideas and activities. Many of the activities are launched using story books and poems or through a historical tie in. These elements assist in cementing a relationship among other disciplines. It would help the reader to have the activities and CD materials arranged in order of grade level. The assess-

.....  
Prices on software, books, and materials are subject to change. Consult the suppliers for the current prices. The comments reflect the reviewers' opinions and do not imply endorsement by the National Council of Teachers of Mathematics.

ment documents on the CD should come after the activities. It would also be helpful to have the investigations ordered in levels of complexity. If the questions in the investigations were printable documents, students could work in small groups. This way, students would be more involved in the activity.

Most activities go from the teacher doing everything to the “I do it” component. Having a “we do it” component would allow a gradual release of responsibility. When stating estimated times, use of minutes rather than class periods would also help. Class periods differ in length in schools across the country. My last thought is that activities involving competition are not good for middle-level students.

I would recommend this book to teachers in these grade levels. The publisher should consider, however, making some changes before printing a new edition.

—Sandra H. Gothard

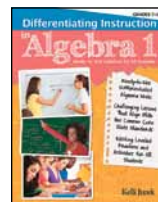
*PBS TeacherLine and Laramie County School District #1  
(retired teacher and substitute),  
Cheyenne, Wyoming*

### FROM OTHER PUBLISHERS

#### **Differentiating Instruction in Algebra 1: Ready-to-Use Activities for All Students**

*Kelli Jurek, 2013. Gr. 7–10, 234 pp., \$29.95 paper. ISBN 978-1-59363-951-8. Prufrock Press; [www.prufrock.com](http://www.prufrock.com).*

Jurek's book provides rigorous instructional practices and a wealth of research-proven activities, which aim to increase engagement in the



algebra classroom. Although it is not meant to replace quality instruction, a teacher's curricular efforts would be greatly strengthened by the use of the varied activities included in this book.

The primary audience for the instructional activities in Jurek's work would include first-year algebra students, but students in middle-level mathematics classes would also benefit from its contents (namely, Unit 1: Introduction to Functions and Relationships). Jurek excels in providing students with many opportunities to engage in vocabulary development and comprehension (Hexagon Puzzles, ThinkDots activities, RAFT writing prompts) and to apply primary algebraic concepts (Tic-Tac-Toe, Vocabulary Choice Boards).

The use of detailed rubrics to guide student self-evaluation is an excellent way to promote responsibility in higher-level mathematics students, and the inclusion of “learning targets” gives those students who need additional structure the opportunity to show growth and establish a positive learning routine.

With its variety of opportunities for facilitating and demonstrating algebra mastery, Jurek's book will give teachers of varying experience a storehouse of unique, varied activities to engage algebra students through a wide breadth of content. Combined with thoughtful, quality algebra instruction, this work can have a significant impact on algebra mastery.

—Tim Kubinak

*John Yeates Middle School  
Suffolk, Virginia*

### **Math Sense: The Look, Sound, and Feel of Effective Instruction**

Christine Moynihan, 2012. 144 pp., \$19 paper. ISBN 978-1-57110-942-2. Stenhouse Publishers; [www.stenhouse.com](http://www.stenhouse.com).

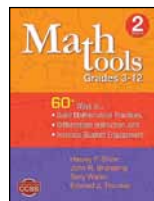
In *Math Sense*, Moynihan explores the look, sound, and feel of engaging mathematics classrooms. With each chapter, she discusses the what, why, and where, and magnification of a variety of important tools for creating classrooms that engage all students. For example, in “The Look of the Lesson: Students” chapter, Moynihan discusses the importance of active listening. She shares the definition of active listening, discusses why it is important, and when students should be engaged in active listening. In addition, for each recommendation, she includes what she calls a “magnification,” in which she shares a real-life implementation to help the reader better understand the strategy being discussed.

This book is a great resource for beginning and experienced teachers as they transition to the Common Core State Standards for Mathematics. It is an easy and clear read. After a teacher has read it once, it will be a resource for his or her library that can serve for years to come. I recommend it for anyone who wants specific strategies for engaging their students in mathematics in a thoughtful and meaningful way.

—*Tamara Pearson*  
Clayton State University  
Morrow, Georgia

### **Math Tools, Grades 3–12: 60+ Ways to Build Mathematical Practices, Differentiate Instruction, and Increase Student Engagement**

Harvey F. Silver, John R. Brunsting, Terry Walsh, and Edward J. Thomas, 2012. 272 pp., \$38.95 paper. ISBN 978-1-4522-6139-3. Corwin; [www.corwin.com](http://www.corwin.com).



This resource is intended for classroom teachers or math coaches. It is an updated publication from the 2008 edition with explicitly articulated connections to the Common Core’s Standards for Mathematical Practices.

In this brief review, I cannot discuss all 60+ tools that the authors provide. However, I can say that the collection is comprehensive and current. I found several resources, such as Vocabulary Knowledge Rating (p. 38), Cinquan (p. 114), and Mathematics Writing Frames (p. 222), to be novel and relevant to promoting literacy in mathematics instruction. I found the exemplars and tools to be appropriate for grades 3–12, from order of operations to polynomials. Additionally, the teacher notes highlighting formative assessment connections support high-impact instruction.

Some resources, however, were less novel. “Student Knowledge Cards” (p. 14) sounded intriguing, but I felt this topic was little different from flash cards, and the “Memory Box” (p. 26) seemed to be a creative name for crib sheets.

Although I appreciated the chapter structure of the “Four Styles of Mathematics Students,” I would encourage the reader to decide what would work from a learning objective and not from a student learning style. I understand the authors’ desire to make connections to the Standards for Mathematical Practice; however, I am not certain a classroom teacher would find the “Matrix” chart at the opening of each chapter particularly useful.

The final section, Task Rotation (p. 224), distinguishes this book from just a collection of resources. This is a rich model for classroom teachers in that it helps them differentiate instruction and use formative assessment concurrently. The author’s guidance in

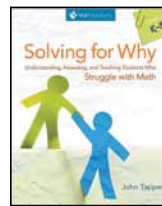
designing a task rotation with “a hook or engaging point of entry” is spot on, and several solid exemplars are given.

In conclusion, I feel this updated edition is packaged as described to support “common core + differentiation + student engagement” and would be a very useful resource for a department and/or math coach’s bookshelf.

—*Norma Borenstein-Gordon*  
Former middle and high school  
mathematics teacher, education consultant  
Lexington, Massachusetts

### **Solving for Why: Understanding, Assessing, and Teaching Students Who Struggle with Math**

John Tapper, 2012. Gr. 6–8. 256 pp., \$35.95 paper. ISBN 978-1-935099-33-8. Math Solutions; [www.mathsolutions.com](http://www.mathsolutions.com).



Written for K–8 teachers and math specialists, this book offers insights that may be the answer to the problem of why

Janie cannot do math. In fact, the author poses a number of hypotheses that give teachers excellent starting points in diagnosing the underlying difficulties behind students’ issues with mathematics.

In addition to the main features, stories that illustrate practical experiences are sprinkled throughout. However, these anecdotes detract from the smooth flow of the author’s voice and may create struggles of their own. The stories provide practical examples, and the main text offers step-by-step guidance. Of particular note are the recommendations for math conferencing and diagnostic centers.

The author assumes nothing, so experienced teachers and specialists may find some of the background information to be unnecessary. However, this journey from understanding students who struggle with math to teaching

strategies that help students overcome these hurdles is one that has rarely been undertaken so comprehensively. If only for that reason, any seemingly superfluous comments can be excused.

Key to the strength of this resource are “ease the struggle” segments sprinkled throughout part 2. Although some of these segments define the obvious, such as what it means to generalize and to overgeneralize, others are timely and clearly explained. These brief asides touch on Response to Intervention (RtI) tiers, Primary Number and Operations Assessment (PNOA), collaborative study, and conceptual versus procedural understandings. In addition to assessment strategies with research-based foundations, this resource guides teachers in designing lessons that support learners with varied challenges.

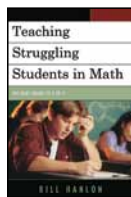
At the end of the book, reproducible black-line masters are provided to support differentiated lesson planning. Examples are also included that range from first grade through seventh, covering a broad range of students’ needs. By offering tangible tools, templates, and forms that help implement the author’s recommendations, teachers and math specialists may have an essential resource that helps explain why some students do not comprehend the beauty and power of math.

—Beverley Mowatt-Plaskett  
Instructional coach with *Time to Know*  
New York, New York

### Teaching Struggling Students in Math: Too Many Grades of D or F?

Bill Hanlon, 2012. 164 pp., \$23.95 paper. ISBN 978-1-4758-0069-2. Rowman & Littlefield Education; [www.rowman.com](http://www.rowman.com).

*Teaching Struggling Students in Math* by Bill Hanlon gives research-based best practices for beginning and experienced teachers. Practical advice with examples on how to teach math skills to many different types of students



who struggle with math are also included. The sound methods presented apply not only to a general education classroom but also to English lan-

guage learners, exceptional and at-risk students, and other populations. Readers are walked through all parts of effective lesson planning, including expectations, various memory techniques, note-taking techniques, presenting the lesson, using technology, and student assessment. Every step of the way is explained so that the reader understands when and why each method is chosen along with what it looks like in the Common Core classroom. I have used many of these techniques not only in my math classes but also in other subjects with success. This book is an easy-to-read, invaluable resource for both teachers and administrators.

—Gina Garner  
Donelson Middle School  
Nashville, Tennessee

## PRODUCTS

### QAMA Calculator

Ilan Samson, 2012. \$19.60. Ilan Samson; [www.QAMACalculator.com](http://www.QAMACalculator.com).



The QAMA calculator’s unique feature is the requirement that the user enter an estimate before the actual answer is displayed. I was extremely excited by the concept of the calculator. I have seen many students write down completely unreasonable answers directly from a calculator because they were not in the habit of mentally estimating.

According to the manual, the goal is to “aim for the best possible estimate using little, reasonable, effort.” I found it a bit hard to generate estimates with little effort in some cases.

For instance, I typed in the problem  $40 \times 35$ . I chose only to round the 35. When I rounded 35 up to 40, I came up with the estimate of 1600. The calculator would not accept this estimate. I then tried to round the 35 down to 30 and came up with the estimate of 1200. Again, the calculator would not accept the answer. Finally, I rounded the 40 up to 50 and the 35 down to 30 and came up with an estimate of 1500, which the calculator accepted.

I think most students would find this calculator extremely frustrating to use as a primary computation tool because the estimates it accepts are not necessarily intuitive. Despite this, the calculator would be useful when students first learn a computation algorithm or work with transcendental functions. Having students establish a habit of estimation might help to prevent careless errors when they perform computations both with and without a calculator.

—H. Smith Risser  
Montana Tech  
Butte, Montana