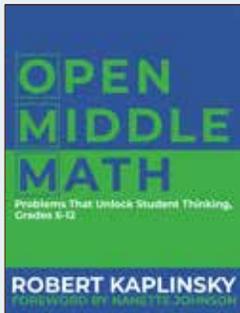


# Math & Numeracy



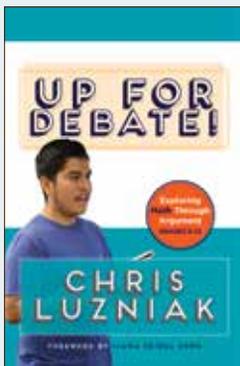
## Open Middle Math

Problems that unlock student thinking, grades 6–12

**Robert Kaplinsky**

200 pp (est) • ISBN 978-1-62531-174-0 • \$35.95 • 6–12  
arriving in November 2019

Imagine that you assign a math problem and your students, instead of getting discouraged after not solving it on the first attempt, start working harder—as if on a quest to figure out the answer. *Open Middle Math* gives middle and high-school teachers challenging and rewarding math problems and planning guidance that will help you see students build genuine conceptual understanding, perseverance, and creativity. With these practical and intuitive strategies, extensive resources, and Robert's own stories about learning to use Open Middle math problems successfully, you will be able to support, challenge, and motivate all your students.



## Up for Debate

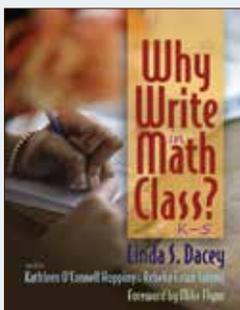
Exploring math through argument

**Chris Luzniak**

96 pp (est) • ISBN 978-1-62531-281-5 • \$28.95 • 6–12  
arriving in December 2019

Discover the route to a classroom culture where students do the talking, explain their thinking, and critique each other's mathematical reasoning. You'll start with short speaking and listening routines that take just a few minutes to introduce. As you and your students progress, you can layer on

additional debate routines, until your class is engaging in full-class debates using mathematical reasoning. This easy-to-read guide offers stories, exemplars, and step-by-step routines that will have you starting the debate in your class—tomorrow!



## Why Write in Math Class?

**Linda S. Dacey, Kathleen O'Connell Hopping & Rebeka Eston Salemi**

176 pp • ISBN 978-1-62531-160-3 • \$37.95 • K–5 • 2018

Use writing to help students construct, explore, represent, refine, connect, and reflect—in math class! Focusing on 5 types of writing, *Why Write in Math Class?* offers a variety of ways to integrate writing into math class. It gives practical advice on

supporting writing in math, as well as many specific examples of writing prompts and tasks that require high-cognitive demand. Extensive stories and examples from real classrooms give a vision of how writing in math class can successfully unfold, and transform, your daily instruction.

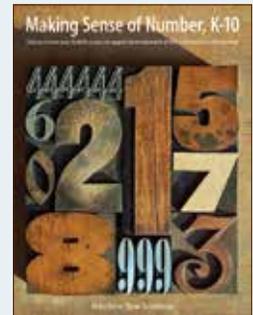
## Making Sense of Number, K–10

Getting to know your students so you can support the development of their mathematical understanding

**Mary Fiore & Ryan Tackaberry**

144 pp • ISBN 978-1-55138-332-3 • \$24.95 • K–10 • 2018

This practical book shows you how to get to know the needs and abilities of your students and help them make sense of math concepts. You will discover how to structure learning experiences around key number concepts—quantity, counting, relating, and representing—developed across various strands: patterning and algebra, number and operations, measurement, geometry, and data and probability. Powerful examples of questions and prompts guide you to create a classroom where students get the support they need as they develop confidence in their number sense.



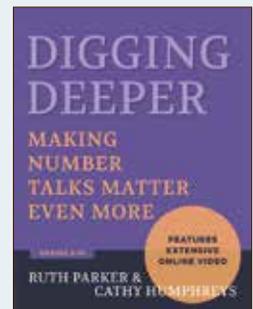
## Digging Deeper

Making number talks matter even more

**Ruth Parker & Cathy Humphreys**

152 pp • ISBN 978-1-62531-204-4 • \$39.95 • 3–10 • 2018

Dig deeper into the power of Number Talks! Through real stories, you'll meet teachers who are learning to listen closely to students and prompting them to figure things out for themselves. You'll learn how they make on-the-spot decisions, continually advancing and deepening the conversation. Personal and accessible, the book highlights the kinds of questions that elicit deeper thinking and ways to nudge students to think more flexibly, without directing their thinking. Bring your classroom to life as students question, challenge, and debate their way to new math discoveries!



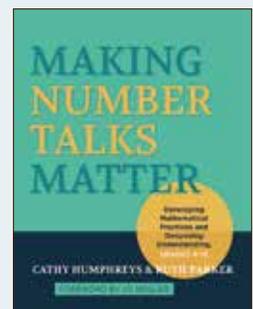
## Making Number Talks Matter

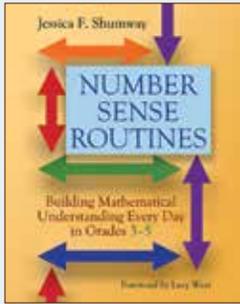
Developing mathematical practices and deepening understanding

**Cathy Humphreys & Ruth Parker**

216 pp • ISBN 978-1-57110-998-9 • \$34.95 • 4–10 • 2015

Make this 15-minute daily routine a vital part of math instruction! Discover practical ideas for using Number Talks to help your students learn numerical reasoning, and build a solid foundation for the study of mathematics. Based on the insights of many years of experience, this straightforward book provides questions to ask during Number Talks, ways to turn thinking over to students, the math behind the strategies, and ways to overcome commonly occurring problems. If you've been looking for ways to bring joy back into math class, this book is for you.





## Number Sense Routines 3-5

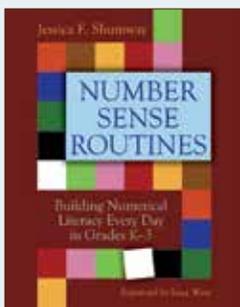
Building mathematical understanding every day

**Jessica Shumway**

152 pp • ISBN 978-1-62531-088-0 • \$37.95 • 3-5 • 2018

*Number Sense Routines* is about tapping into every child's innate number sense and providing experiences that are responsive to children's learning needs. Through familiar 5-, 10-, and 15-minute daily warm-up routines, the book offers easy and effective ways to build and solidify students' number sense foundations. Teachers will learn to better recognize the big ideas that emerge in discussions, how to encourage important number sense strategies, and how to facilitate dialogue on key math concepts.

...highly readable and easily comprehensible... all the tools and a final push of encouragement to get into my classroom and really commit to using number sense routines to engage my class of reluctant mathematicians. —MiddleWeb, September 2018



## Number Sense Routines K-3

Building numerical literacy every day

**Jessica Shumway**

192 pp • ISBN 978-1-57110-790-9 • \$34.95 • K-3 • 2011

This practical book shows that number sense can be taught to all students with a rich collection of 5-, 10-, or 15-minute daily routines. Dozens of examples illustrate how these routines work, how children's number sense develops, and the best ways to implement responsive routines. Teachers will gain a deeper understanding of the underlying math—the big ideas, skills, and strategies.

Teachers will gain a deeper understanding of the underlying math—the big ideas, skills, and strategies.

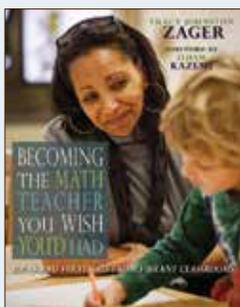
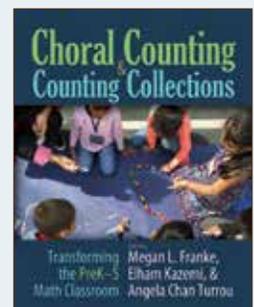
## Choral Counting & Counting Collections

Transforming the PreK-5 math classroom

**Megan L. Franke, Elham Kazemi & Angela Chan Turrou**

224 pp • 978-1-62531-109-2 • \$43.95 • Pre-K-5 • 2018

Experience the joys and rewards of using choral counting and counting collections regularly in class, and in partnerships with families. These playful, intentional activities will engage children with ideas of number and operations, and making sense of math through counting.



## Becoming the Math Teacher You Wish You'd Had

Ideas and strategies from vibrant classrooms

**Tracy Johnston Zager**

392 pp • ISBN 978-1-57110-996-5 • \$57.95 • K-8 • 2017

Transform math class into a place that is playful, creative, and captivating for every student. Discover dozens of practical teaching techniques to try in the classroom right away—strategies to stimulate students to connect ideas; rich tasks that encourage students to wonder, conjecture, and persevere; and routines to teach collaboration.

strategies to stimulate students to connect ideas; rich tasks that encourage students to wonder, conjecture, and persevere; and routines to teach collaboration.

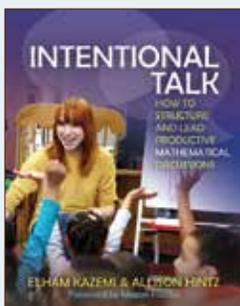
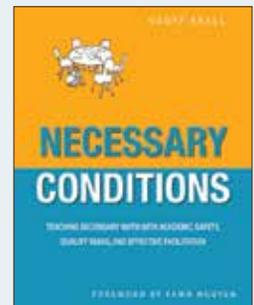
## Necessary Conditions

Teaching secondary math with academic safety, quality tasks, and effective facilitation

**Geoff Krall**

420 pp • 978-1-62531-145-0 • \$62.95 • 6-12 • 2018

Give high-school math a guiding vision with 3 essential elements: academic safety, quality tasks, and effective facilitation. This in-depth exploration equips teachers to create dynamic, engaging lessons and experiences that will help every student recognize that they can be a "math person."



## Intentional Talk

How to structure and lead productive mathematical discussions

**Elham Kazemi & Allison Hintz**

168 pp • ISBN 978-1-57110-976-7 • \$33.95 • K-5 • 2014

Learn to direct discussions with a goal in mind, encourage meaningful participation, and support student thinking with effective questioning. The book explores students' roles as both listeners and talkers, and offers

a number of strategies for improving participation and learning.

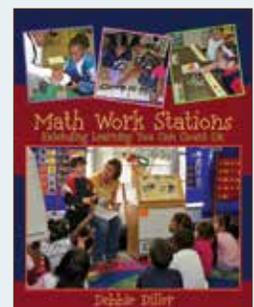
## Math Work Stations

Independent learning you can count on, K-2

**Debbie Diller**

312 pp • ISBN 978-1-57110-793-0 • \$51.95 • K-2 • 2011

Over 70 learning stations cover all the key concepts in K-2 math. This hands-on book gives you everything you need to help kids develop conceptual skills, use math vocabulary to talk about their thinking, and connect large concepts to meaningful independent exploration. Hundreds of colour photos, charts, and reproducibles complement this handy guide.





### Well Played

Building mathematical thinking through number games and puzzles

Linda Dacey, Karen Gartland & Jayne Bamford Lynch

Available in grade levels:

Grades K–2: 224 pp • ISBN 978-1-62531-034-7 • \$37.95 • K–2 • 2015

Grades 3–5: 240 pp • ISBN 978-1-62531-032-3 • \$37.95 • 3–5 • 2015

Grades 6–8: 248 pp • ISBN 978-1-62531-033-0 • \$37.95 • 6–8 • 2016

Too often, math games are thought of as just a fun activity or enrichment opportunity. *Well Played* shows you how to make games and puzzles an integral learning component that provides teachers with unique access to student thinking.

Each book in this popular series offers 25 classroom-tested games and puzzles that will engage students in sustained and productive mathematical thinking and discussion. You'll also find suggestions for how to effectively manage games and puzzles in diverse classrooms; reproducibles that provide directions, game boards, game cards, and puzzles; assessment ideas; and suggestions for online games, puzzles, and apps.

From inside *Well Played*, 3–5



#### Mystery Number

##### Why This Game or Puzzle?

Terrific for playing as a whole class during transition times, this game can also be played in small groups or pairs. The teacher or student leaders choose a number and announce, "The mystery number is between..." and provide two endpoints, such as 500 and 1,000. The players' job is to ask questions that have yes-or-no answers until they can identify the mystery number. The mathematics of the game focuses on comparison of numbers, most associated with a number line model, as well as other number properties, for example, the number of digits, whether it is odd or even, or whether it is a multiple of another number. The game also provides an opportunity for thinking about strategy through conversations related to the questions *What makes a good question? What can you conclude from the answers to previous questions? What's a good way to organize the information? Whether your questions are answered yes or no, how many questions do you think you'll need to ask to identify this number?* Such thinking is important, as the way mathematics is explored in classrooms should reflect how it is used in the world (Van de Walle, Karp, and Bay-Williams 2013). As the level of the game is dependent only on the range of numbers provided and the types of questions students ask, it is appropriate for all grade levels.

**Mystery Number Recording Sheet**

Name(s): \_\_\_\_\_ Date: \_\_\_\_\_

The range for this game is \_\_\_\_\_ to \_\_\_\_\_

Questions Asked	What We Know

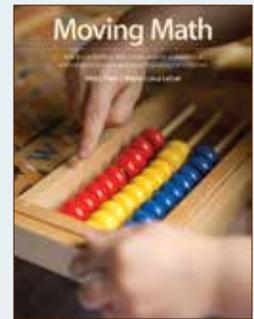
### Moving Math

How to use thinking skills to help students make sense of mathematical concepts and support numeracy development

Mary Fiore & Maria Luisa Lebar

128 pp • ISBN 978-1-55138-325-5 • \$24.95 • K–8 • 2017

Refocus math instruction by focusing on key thinking skills—inferring and interpreting, analyzing, evaluating, making connections, synthesizing, reasoning and proving, and reflecting. Engaging, hands-on activities will encourage students to ask questions, pose problems to solve, and explore new ideas. *Moving Math* will empower you and your students to explore meaningful learning that invites questioning, deep thinking, and purposeful math discussion.



...a conceptual and theoretical framework that stands against a narrow vision of success in school mathematics and holds against it a rich and complex vision of the numerate learner... CM Magazine, March 2018

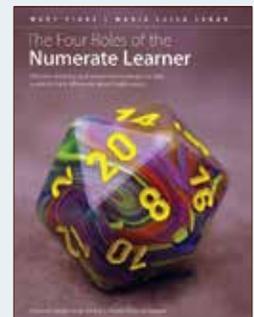
### The Four Roles of the Numerate Learner

Effective teaching and assessment strategies to help students think differently about mathematics

Mary Fiore & Maria Luisa Lebar

128 pp • ISBN 978-1-55138-311-8 • \$24.95 • K–12 • 2016

Using the successful frameworks we use to teach literacy, this intriguing book introduces a numeracy framework—sense maker, skill user, thought communicator, and critical interpreter—that supports an integrated approach to math instruction. The goal is to provide multiple entry points into the world of math instruction—a new way of thinking and learning where learners engage in critical thinking about numeracy and act on their knowledge.



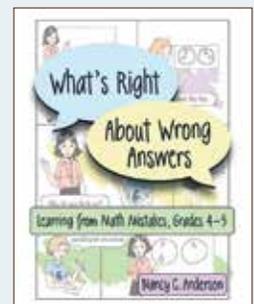
### What's Right About Wrong Answers

Learning from math mistakes, grades 4–5

Nancy Anderson

152 pp • ISBN 978-1-62531-086-6 • \$34.95 • 4–5 • 2017

Every new skill takes practice to get right, whether it's sinking a 3-pointer, learning a new piece of music, or multiplying fractions. This book recognizes a simple but important truth: "You can't learn math without making mistakes." It shows you how to take mistakes and turn them on their head, using them to students' advantage. Each of the 22 activities offered in the book focuses on important ideas in mathematics. By examining comic strips, letters to a fictitious math expert from confused students, and sample student work containing mistakes, young learners explore typical math errors, reflect on why they're wrong, and move toward a deeper understanding of numbers and math.





## Which One Doesn't Belong?

Christopher Danielson

Available in three formats:

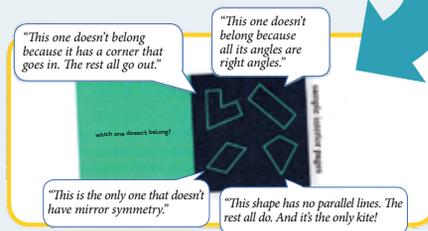
**Student Hardcover & Teacher Guide Bundle:** 36 + 84 pp • ISBN 978-1-62531-081-1 • \$37.95 • K-12 • 2016

**Single Student Hardcover:** 36 pp • ISBN 978-1-62531-080-4 • \$18.95 • K-12 • 2016

**Set of 5 Student Paperbacks:** 36 pp (x5) • ISBN 978-1-62531-130-6 • \$44.95 • K-12 • 2016

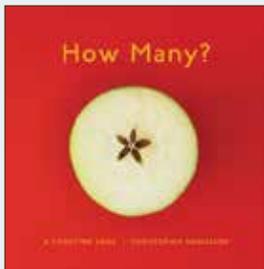
*Which one doesn't belong?*

From inside *Which One Doesn't Belong?*



Every colorful page contains a thoughtfully designed set of four shapes. Each of the shapes can be a correct answer to the question "Which one doesn't belong?" Because all their answers are right answers, students naturally shift their focus to justifications and arguments based on the shapes' geometric properties.

In the companion teacher's guide, you'll discover how to facilitate rich conversations, teach mathematical argumentation, and listen closely and respectfully to students' ideas about shapes. The *Which One Doesn't Belong?* package provides a powerful, flexible resource you can use to provoke lively discussions and deep learning about shapes with students of all ages.



## How Many?

A counting book & teacher's guide

Christopher Danielson

In *How Many?*, there are multiple things to count on each page—students might notice surprising patterns and relationships, and they will want to talk about them. The accompanying teacher's guide explores deep mathematical ideas, and

helps you anticipate what students might notice, and offers practical suggestions for facilitating rich discussion with students.

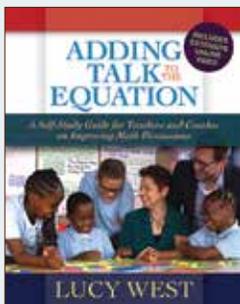
Available in three formats:

**Student Hardcover & Teacher Guide Bundle:**

36 + 112 pp • ISBN 978-1-62531-218-1 • \$37.95 • Pre-K-5 • 2018

**Single Student Hardcover:** 36 pp • ISBN 978-1-62531-182-5 • \$18.95 • Pre-K-5 • 2018

**Set of 5 Student Paperbacks:** 36 pp (x5) • ISBN 978-1-62531-217-4 • \$44.95 • Pre-K-5 • 2018



## Adding Talk to the Equation

A self-study guide for teachers and coaches on improving math discussions

Lucy West

88 pp + 60 min of online video

978-1-62531-261-7 • \$34.95 • 1-8 • 2018

Discover real-life classrooms where all students stay in the game, stay motivated about learning, and ultimately, deepen their understanding. Through the stories

of skilled teachers, author Lucy West offers play-by-play commentary as they get more comfortable with new talk moves and learn to tune in and respond to students' math conversations. Although these discussions occur in math class, the strategies can be used to create a respectful, productive environment for any subject area. A wealth of online video, featuring 5 case studies filmed in grades 1-6, supplements the rich content in this self-study guide.

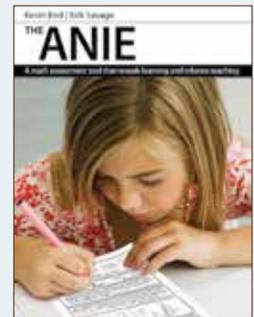
## The ANIE

A math assessment tool that reveals learning and informs teaching

Kevin Bird & Kirk Savage

96 pp • ISBN 978-1-55138-296-8 • \$24.95 • K-12 • 2014

This straightforward book introduces a simple and powerful single-page assessment template—the ANIE (Assessment of Numeracy in Education)—that guides students to explain math concepts and make connections to their relevance in the real world. The book describes a 5-step process for solving any math question, offers proven techniques for introducing the template, suggests easy ways to grade and interpret the results, and provides students samples that illustrate the ANIE in action.



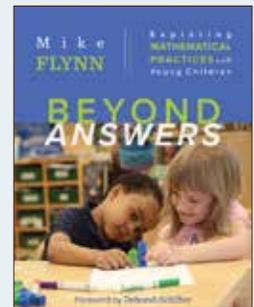
## Beyond Answers

Exploring mathematical practices with young children

Mike Flynn

224 pp • ISBN 978-1-57110-902-6 • \$40.95 • K-2 • 2016

This practical, easy-to-read book provides a clear and deep sense of curriculum standards and shares ideas on how best to implement them in the classroom. It provides glimpses of classroom dialogue, teacher reflections, and examples of student work. It demonstrates, through real classroom examples, what it means for kids to *understand*—not just *do*—math.



... an insightful, practical, helpful & thought provoking book. I have a new appreciation for mathematics instruction and the powerful impact K-2 teachers have in shaping scholars' first experiences with math. —@keenoy, Jan. 2019



## Q Tasks, 2<sup>nd</sup> Edition

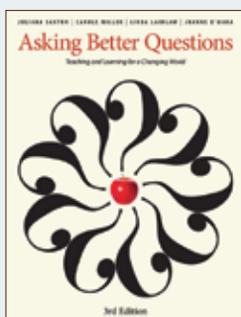
How to empower students to ask questions and care about the answers

**Carol Koechlin & Sandi Zwaan**

160 pp • ISBN 978-1-55138-301-9 • \$24.95 • 4-12 • 2014

Discover more than 100 practical, flexible exercises that will help students learn to formulate good questions in an information-rich environment. Begin to put students at the centre of their own learning as they

develop questions, build critical thinking and inquiry skills, and make real use of the power of technology. Teachers will find innovative ways to help students go beyond rote learning and memorization to focus on personal understanding, and true ownership of the learning experience.



## Asking Better Questions, 3<sup>rd</sup> Edition

Teaching and learning for a changing world

**Juliana Saxton, Carole Miller, Linda Laidlaw & Joanne O'Mara**

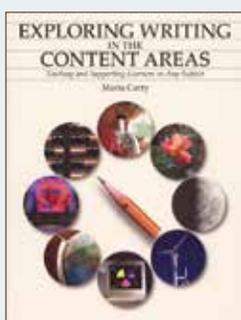
128 pp • ISBN 978-1-55138-335-4 • \$24.95 • K-8 • 2018

How do we help students make sense of our increasingly-complex digital world? The 3<sup>rd</sup> edition of this classic text shows teachers

how to empower students with the skills they need to ask critical and reflective questions about the overwhelming amount of information around them. It shows teachers how to challenge students to assume a deeper ownership of their learning, ask questions that are important to them, and care about the answers.

...an invaluable text that breaks down approaches to inquiry that have enhanced my results as an educator and journalist... My copy is dog-eared and worn from repetitive use. With practical application you will discover more meaning from improved professional practices.

—Christy McLaughlin, amazon.com (on the 2<sup>nd</sup> edition)



## Exploring Writing in the Content Areas

Practical ways to support writing in any subject area

**Maria Carty**

128 pp • ISBN 978-1-55138-188-6 • \$24.95 • 5-9 • 2005

Teachers of any subject can learn to help their students become better, more capable writers. This practical book offers innovative ways to guide students through the various

stages of the writing process, along with practical tips for supporting and encouraging student work. The book also includes tips on providing constructive feedback and demonstrates how assessment can guide effective teaching practice and help plan more successful instruction.

## Powerful Understanding

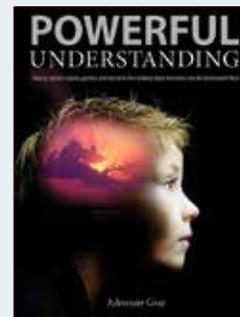
Helping students explore, question, and transform their thinking about themselves and the world around them

**Adrienne Gear**

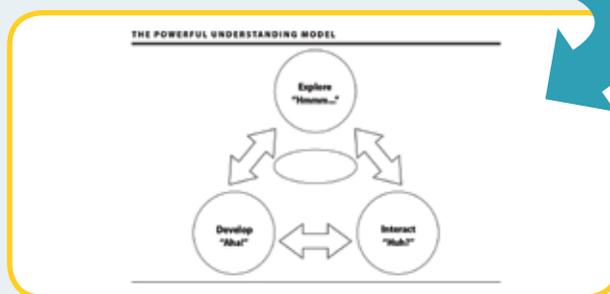
176 pp • ISBN 978-1-55138-328-6 • \$24.95 • K-8 • 2018

*Powerful Understanding* explores effective ways to build social-emotional skills and help students make connections, ask questions, and reflect on their learning as they

develop into stronger readers and learners. Strategic and critical thinking strategies help integrate thinking into everything you teach—from mathematical thinking, to social responsibility, to life cycles. This highly readable book includes exemplars, activities, and lists of core anchor books.



From inside *Powerful Understanding*



## From Curiosity to Deep Learning

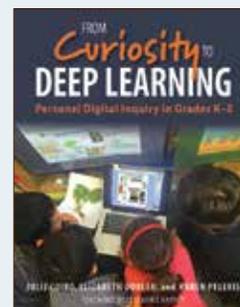
Personal digital inquiry in grades K-5

**Julie Coiro, Elizabeth Dobler & Karen Pelekis**

240 pp • ISBN 978-1-62531-156-6 • \$44.95 • K-5 • 2019

Discover the powerful learning that results when you integrate purposeful technology into a classroom culture that values curiosity and deep learning. *From Curiosity to Deep Learning* shows you how to

integrate inquiry with a range of digital tools and resources that will create a dynamic classroom for both you and your students.



## Next Steps with Academic Conversations

New ideas for improving learning with classroom talk

**Jeff Zwiers**

208 pp • ISBN 978-1-62531-299-0 • \$42.95 • 3-12 • 2019

Conversation was not invented to help us choose right answers on tests. It evolved to solve problems, build ideas, build relationships, and understand others and the world. This resource was written for busy teachers who want a practical guide for strengthening the quality and quantity of productive conversations in their lessons.

