

## For Your Bookshelf

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### **Beyond Pizzas & Pies**


Julie McNamara and Meghan M. Shaughnessy, 2010. 162 pp., \$33.95. ISBN 978-1-935099-13-0. Math Solutions: [www.mathsolutions.com](http://www.mathsolutions.com)

**W**e all have heard that fractions are hard to teach and hard to learn. So when a resource for teachers comes along that can help teachers understand and address the most common misconceptions students have, that it is a book to add to your bookshelf.

Geared for teachers of students in grades three through five, *Beyond Pizzas and Pies* is a resource to support teachers in helping students develop fraction sense. Each of the eight chapters discusses one common dilemma that students have with fractions and provides activities and strategies for addressing and preventing these dilemmas. The chapters all follow the same format and can be taught in the order that best fits the needs of your students. Each opens with the connection to the National Council of Teachers of Mathematics (NCTM) *Principles and Standards for School Mathematics* or the NCTM *Curriculum Focal Points* and contains three sections—a Classroom Scenario, What's the Math? and What's the Research? Those sections set the stage for the student activities that follow.

For example, "Chapter 5: Is  $1/2$  Always Greater Than  $1/3$ ? The Importance of Context in Identifying the Unit," provides opportunities to see that the size of the fractional part is relative to the size of the whole. The research shows that when students are asked to compare  $1/2$  and  $1/3$  in the context of two different books or pizzas, they are quick to say that  $1/2$  is larger without taking into account the whole. To help address this dilemma, students use pattern blocks to determine the parts of a whole that changes. For example, when the hexagon is a whole, the triangle is  $1/6$  of the whole. In contrast, when the trapezoid is a whole, the triangle is  $1/3$  of the whole. Students continue to explore relationships among

the pattern blocks based on a shifting whole. Following this activity, students use common household items, such as soda in various packaging sizes, to determine parts of a whole. This chapter also suggests additional resources to further help students understand how to reason about changing units.

As Deborah Loewenberg Ball summed it up, *Beyond Pizzas and Pies* is smart, accessible, and usable. I couldn't agree with her more and highly recommend this book for your mathematics library. It will support you in your understanding of fractions and, in turn, will support your students in developing a robust understanding of fractions. 

### California Mathematics Council 2011–12 Annual Conferences

#### **SAVE THE DATES!**

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#### **November 4–5, 2011: CMC South Conference, Palm Springs**

(Registration information should be available at the CMC web site in June.)

#### **December 2–4, 2011: CMC North Conference, Asilomar**

(Registration information should be available at the CMC web site in June.)

#### **March 9–10, 2012: CMC Central STEMposium, Fresno area**

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