ENGAGING YOUNG CHILDREN IN MATHEMATICS
STANDARDS FOR EARLY CHILDHOOD MATHEMATICS EDUCATION

Edited by
Douglas H. Clements, University of Buffalo, State University of New York
Julie A. Sarama, University of Buffalo, State University of New York
Ann-Marie DiBiase, Brock University, Canada

A VOLUME IN LEA’S STUDIES IN MATHEMATICAL THINKING AND LEARNING SERIES

“This work fills a tremendous vacuum that has existed for many years, taking a close look at early mathematics teaching and learning in a way that reflects both the early childhood and mathematics education perspectives. It should be useful for virtually anyone with a serious interest in early mathematics learning. Two thumbs up!”

—W. Gary Martin,
Auburn University

“This very comprehensive, sound, practical, and detailed discussion on issues related to standards for pre-school and kindergarten mathematics... will be a very influential book for mathematics educators, early childhood educators, and people responsible for policy decisions... It will contribute significantly to the field.”

—Alfinio Flores,
Arizona State University

Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education brings together the combined wisdom of a diverse group of experts involved with early childhood mathematics. The book originates from the landmark 2000 Conference on Standards for Pre-kindergarten and Kindergarten Mathematics Education, attended by representatives from almost every state developing standards for young children’s mathematics; federal government officials; mathematicians; mathematics educators; researchers from mathematics education, early childhood education, and psychology; curriculum developers; teachers; policy makers; and professionals from organizations such as the National Conference of Teachers of Mathematics and the National Association for the Education of Young Children. The main goal of the Conference was to work collectively to help those responsible for framing and implementing early childhood mathematics standards. Although it has its roots in the Conference, the expanded scope of the standards and recommendations covered in this book includes the full range of kindergarten to grade 2.

The volume is organized into two main parts and an online appendix (http://www.gse.buffalo.edu/org/conference/). Part One, Major Themes and Recommendations, offers a framework for thinking about pre-kindergarten - grade 2 mathematics education and specific recommendations. Part Two, Elaboration of Major Themes and Recommendations, provides substantive detail regarding young students’ understandings of mathematical ideas. Each Part includes five parallel subsections: “Standards in Early Childhood Education”; “Mathematics Standards and Guidelines”; “Curriculum, Learning, Teaching, and Assessment”; “Professional Development”; and “Toward the Future: Implementation and Policy.” As a whole the book:
• presents comprehensive summaries of research that provide specific guidelines for standards, curriculum, and teaching;
• takes the recent reports and recommendations for early childhood mathematics education to the next level;
• integrates practical details and research throughout; and
• provides a succinct, but thorough review of research on the topics, sequences, and learning trajectories that children can and should learn at each of their first years of life, with specific developmental guidelines that suggest appropriate content for each topic for each year from 2-year-olds to 7-year-olds.

This is an indispensable volume for mathematics educators, researchers, curriculum developers, teachers and policy makers, including those who create standards, scope, and sequences, and curricula for young children and professional teacher development materials, and students in mathematics education, early childhood trainers, teacher educators, and faculty in mathematics education.

Visit LEA’s web site at: www.erlbaum.com
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