

# RESOURCES

The following recommended resources are excerpted from *Improving Adolescent Mathematics: Findings From Research* (see pp. 32–34).

*EDThoughts: What We Know About Mathematics Teaching and Learning*, by J. Sutton and A. Krueger (Aurora, CO: Mid-continent Research for Education and Learning, 2002).

This book provides suggestions useful to K–12 classroom teachers and administrators, teacher educators, and parents for improving school mathematics. The book is divided into two-page sections that address equity, teaching and learning, assessment, curriculum, and technology. Research and best practice are on one page and classroom implications are on the second page.

*Helping Children Learn Mathematics*, edited by J. Kilpatrick and J. Swafford (Washington, DC: National Academy Press, 2002).

New goals for mathematics learning and a set of actions for achieving these goals are described in ways that are easily understood. Guidelines for teachers, parents, administrators, and policymakers are provided.

*How Students Learn: Mathematics in the Classroom*, edited by M.S. Donovan and J.D. Bransford (Washington, DC: National Academies Press, 2005).

This book explores how the principles of learning can be used in teaching mathematics at the elementary, middle, and high school levels. It includes how to develop successful curricula and teaching approaches, and strategies that are models for curriculum development and classroom instruction. Illustrated classroom activities that will help to make the teaching of mathematics more effective are provided.

*Implementing Standards-Based Mathematics Instruction: A Casebook for Professional Development*, by M. K. Stein, M.S. Smith, M.A. Henningsen, and E.A. Silver (New York, NY: Teachers College Press, 2000).

The Mathematics Tasks Framework is presented as a way to help teachers and teacher educators evaluate instructional decisions, the choice of materials, and learning outcomes. Case studies show how ideas from the Mathematics Tasks Framework are used and analyzed by teachers. In the studies, teachers and teacher educators learn about the role of procedures in reform mathematics, use of manipulatives, bilingual education, and the impact of standardized testing.

*Lessons Learned From Research*, edited by J. Sowder and B. Schappelle (Reston, VA: National Council of Teachers of Mathematics, 2002).

The editors include 28 mathematics education research reports to highlight important information for classroom teachers. This book helps teachers learn how to read and gain useful information from published research reports. It is divided into sections on teaching, learning, curriculum, and assessment.

*Principles and Standards for School Mathematics*, (Reston, VA: National Council of Teachers of Mathematics, 2000).

This publication is a resource and guide that outlines the crucial components of a high-quality school mathematics program that will improve students' school mathematics from kindergarten through grade 12. The book is organized into four parts: principles for school mathematics and an overview of the standards; standards outlining the content and process of school mathematics; expectations for prekindergarten–grade 2, grades 3–5, grades 6–8, and grades 9–12; and a discussion of steps needed to move toward high-quality instruction for all students.

*The Teaching Gap: Best Ideas From the World's Teachers for Improving Education in the Classroom*, by J.W. Stigler and J. Hiebert (New York, NY: Free Press, 1999).

The authors discuss how to refocus education reform efforts based on the Third International Mathematics and Science Study. Teaching methods of mathematics teachers in Japan and Germany are compared and contrasted with those in the United States. Suggestions are included on how to restructure our schools so that teachers can engage in career-long learning and classrooms can be used for developing new, teaching-centered ideas.

 Resource Annex