

The University of Chicago School Mathematics Project



Birmingham, Michigan Public Schools Deepen Mathematical Understanding

What Teachers in the Birmingham Public Schools Have to Say About Everyday Mathematics

"I have become a better mathematician as a result of teaching *Everyday Mathematics*, and feel strongly about how it teaches math and the transfer of concepts into the real world."

"I am comfortable with using manipulatives to develop a concept in this program."

"Fifth graders know so much more than they did in the past. They have become better mathematical thinkers and can communicate mathematically both in writing and in discussion."

"The program connects the concrete to the abstract in a natural progression."

"I see team-building skills as students play the games. They actually reach more children."

"I often remark that I was in high school before I learned these particular concepts in math."

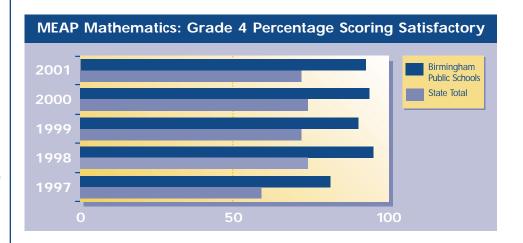
"Students are empowered to share their strategies or methods of solving a problem, promoting diverse thinking." Birmingham Public Schools serves more than 7,700 students in Birmingham, Beverly Hills, Bingham Farms, Franklin, and parts of six other suburban communities located 18 miles north of downtown Detroit, Michigan. The area is largely residential and supports eight elementary schools, two middle schools, two high schools, and a district-wide, Grade 3–8 school of choice with a science and technology emphasis.

A Vision for Mathematics Education

During the 1995–1996 school year, Birmingham Public Schools began a math curriculum review that would continue for one and a half years. The committee reviewed district curriculum frameworks, national standards, academic literature, and educational research. An additional aspect of the committee's work was to investigate the direction that mathematics education was heading. The standards promoted by the National Council of Teachers of Mathematics (NCTM) offered the committee a view of the future and represented a real change in mathematics instruction.

The Focus: Problem-Solving

"We were looking for an open-ended program that emphasized problem-solving, and we determined that *Everyday Mathematics* met our needs," states Dar Grunert, K–12 math/science facilitator in the Birmingham Public Schools. Birmingham Public Schools implemented *Everyday Mathematics* in Grades 1–3 in the fall of 1997, and in Grades 4–5 the following year.





Real-World Math, Real Results

"We appreciate how *Everyday Mathematics* presents mathematical content in a real-world context. *Everyday Mathematics* capitalizes on the math experiences, knowledge, and intuition which students bring with them, beginning in Kindergarten. Each year, the program helps to build the children's conceptual knowledge and deepens their mathematical understanding.

"Since adopting Everyday **Mathematics**, Birmingham Public Schools has maintained and has continued to improve our scores on the Michigan Educational Assessment Program (MEAP). The state test emphasizes problem-solving and realworld contexts, which is exactly what Everyday Mathematics does. In 2001, fully 94% of our students scored at the Satisfactory level on the fourth grade mathematics portion of the MEAP." explains Grunert. A Satisfactory score on the MEAP test indicates that the student meets Michigan's academic standards and the expectations set by the Michigan Department of Education.

Keys to Success

"Staff development was the key to our successful implementation of *Everyday Mathematics*," states Grunert. "Our first staff development sessions took place during the summer, before our teachers would be using *Everyday Mathematics*. This launched a process of yearly staff development. For the next two summers, teachers and principals attended *Everyday Mathematics*Leadership Conferences in Chicago. Those who participated in these conferences were instrumental in continuing teacher training efforts throughout the school year."

In 2001, staff development in the Birmingham Public Schools focused on the Second Edition of *Everyday Mathematics* from the University of Chicago School Mathematics Project (UCSMP). "These sessions were so helpful for our teachers, and they recharged their enthusiasm for teaching *Everyday Mathematics*. With the Second Edition, it is obvious that the UCSMP authors listened to teachers' concerns and incorporated many of their comments and suggestions," continues Grunert. "We were particularly encouraged by the addition of the

Student Reference Books for Grades 3–6, additional assessment opportunities, and the accommodation of different learning levels in each lesson with challenges and extensions."

Grunert also reports, "In the current school year, each of the elementary schools has hosted a Math Night to increase communication with parents and to develop the home connection which is such a strong part of *Everyday Mathematics*. At Math Night, teachers highlighted the development of the content strands through the grade levels. Parents could see the development of conceptual understanding from the early grades to the upper elementary level. All of our teachers did an excellent job, and the Math Nights were very well-received by parents in our district."

For additional information on SRA/McGraw-Hill's **Everyday Mathematics** program, please contact us toll-free at 1-888-SRA-4543 and visit our Web site at www.sra4kids.com.

Meeting All Expectations