Growing with Mathematics



Outstanding Results at Midland Elementary School

Midland School District is located in Independence County, Arkansas in the west central part of the state. The primary industries in the area are manufacturing and educational, health and social services. In addition to service industries, Independence County also supports mining, timber and agriculture.

Approximately 585 students attend Midland schools in Grades K-12. Midland Elementary School is a Grade K-6 building and enrolls 285 students, while Midland High School, at Grades 7–12, has an enrollment of 300 students. Midland is a rural school district and a majority of the students live within a 15–20

mile radius of the schools. The student population is primarily Caucasian (98%) and approximately 60% of the student population is eligible for a free or reduced-price lunch program.

Growing with Mathematics® Meets a Need

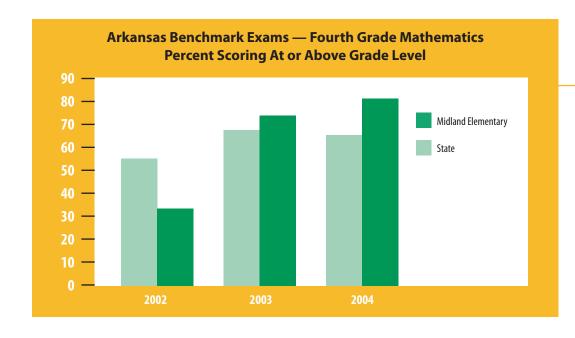
Currently the Assistant Superintendent in Midland, Brad Roberts was a high school mathematics teacher in the early 1990's when he first got involved with standards-based mathematics curriculum. When Roberts moved into an administrative position, he knew that a standards-based curriculum would offer students the

opportunity to further their achievement in mathematics. However, in a poor, rural school district it is difficult to change curriculum in an off-adoption year. Nonetheless, Roberts was determined.

"It was wonderful for the teachers to actually have interactive materials to work with."

Brad Roberts, Assistant Superintendent

Roberts wrote funds into a Title I grant to allow the school to use a standards-based math curriculum. The plan was to have teachers review several programs that conformed with the NCTM standards, and then select a program to implement. The teachers first traveled to a school in St. Charles, Missouri that was using *Growing with Mathematics*. After viewing the application of the curriculum in that school, the teachers voted



Since adopting *Growing* with Mathematics,
Grade 4 students at
Midland Elementary
have outperformed the
state in percentage of
students that scored at
or above grade level.

overwhelmingly to adopt and implement *Growing with Mathematics*.

Growing with Mathematics was implemented in all Midland classrooms in Grades PreK-5 in the 2003–2004 school year. The implementation continued to go smoothly in the second school year (2004–2005), as the students became familiar with the program. Roberts observes that "a major focus of the program is developing mathematical language."

Growing with Mathematics is a PreK-5 curriculum that integrates the best practices of early childhood education, elementary education, and mathematics education. Building on everyday experiences, the program provides a range of materials and activities that encourage children to discuss, represent, and reason mathematically. The range of components in *Growing* with Mathematics supports a balanced approach for both concept and skill development. "Growing with Mathematics features real-world situations that get students interested and involved in mathematics," explains Roberts.

Key to Success

The hands-on activities in *Growing with Mathematics*® eased the implementation of the program. Kindergarten and Grade 1 teachers were very hands-on from the beginning. "*Growing with Mathematics* was easily implemented at the earliest grades, and it was wonderful for the teachers to actually have interactive materials to work with," states Roberts. Teachers in Grades 4–5 also jumped on board quickly because they knew what to

expect from the state benchmark exams given in these grades. These teachers saw almost immediately how *Growing with Mathematics** could help students meet state expectations.

Teachers in Grades 2–3, had traditional expectations of a rote memory style of learning for their students. "Once they made the change, they were supportive of the *Growing with Mathematics* curriculum," explains Roberts.

"Growing with Mathematics features real-world situations that get students interested and involved in mathematics."

Brad Roberts, Assistant Superintendent

According to Roberts, "In the first year of looking at the program before it was fully implemented there was a big jump in test scores, in part due to the motivation and excitement around the anticipated change of acquiring a new, standards-based mathematics program."

Growing with Mathematics solved a basic problem at Midland Elementary: it provided a solution to help raise their state benchmark mathematics scores.

Special Education Students Excel with *Growing* with Mathematics

Special education students receive mathematics instruction in mainstream classrooms. By sitting in on all of the classrooms, the special education teacher was able to see how *Growing with Mathematics* progressed throughout the grades and how the curriculum was

articulated. It was clear that what the students learned in Kindergarten directly linked to the later grades. The special education teacher could see how *Growing with Mathematics* helps students once they reach the 4th and 5th grades.

By the second year of implementation there were three large gains made on the benchmark scores at Midland Elementary. These gains included the overall student gain, the gain made by the special education population, and the level of gains made by high-performing students. As a subpopulation, the special education students made substantial gains. In Grade 4, four of the seven special education students met the state standards by scoring at an advanced and proficient level on the state benchmark test, which is an unusual gain for a subpopulation.

Results

In 2004, Grade 4 mathematics scores at Midland Elementary outperformed those of the state. Students that scored at or above grade level exceeded the average state score by 16 percentage points. Midland Elementary Grade 4 mathematics scores have more than doubled since 2002.

For additional information on the **Growing with Mathematics** program, please contact us toll-free at 1-800-648-2970 and visit our Web site at www.WrightGroup.com.



The **McGraw**·**Hill** Companies

R80001408.indd 2 7/25/05 8:29:34 AM