



Sunnyside Elementary School Great Falls, Montana

SUCCESS STORY
Math Scores Jump from
72% to 84%!

Demographic Background

Sunnyside Elementary School is a K–6 Title I school in Great Falls, Montana. Sunnyside instructs 440 students, 65% of whom qualify for the free or reduced lunch program. Many students come from single parent homes or from households where parents work more than one job.

The Need for Math Solutions

In 2005, the Criterion Reference Test (CRT) scores at Sunnyside illustrated a clear discrepancy between the reading and math scores—though 89% of students were proficient or above in reading, only 72% of students were shown to be proficient or above in math. When discussing the possible reasons behind the low math performance, the staff members at Sunnyside recognized that perhaps because they were teaching the same concepts over and over again without taking any fresh approaches to their teaching style, the concepts would not stick with the students. They concluded that the method of instruction was not as effective as it could be, and that a change was necessary. This change took the form of professional development offered by Math Solutions, the option Sunnyside staff found most promising as a way to fundamentally improve math instruction and student math performance.

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A Philosophical Shift

With renewed enthusiasm, nine teachers and the principal of Sunnyside Elementary School attended a Math Solutions course in El Paso, Texas. Halfway through the training, the Sunnyside staff experienced an epiphany while sitting in the learner's seat. They realized that they themselves lacked understanding of some of the core concepts behind the mathematical procedures they were trying to teach the students, and that the focus of instruction should be on these core concepts and analytical skills rather than surface-level procedures. Math Solutions provided a platform for the teachers to explore alternative, more comprehensive approaches to instruction that included using pictures, words, and activities to solve math problems.

Further Professional Development in Great Falls

After returning from the training in El Paso, the Sunnyside instructors knew they would have to get the rest of the staff on board to make a true impact on student performance across the entire school. The first step in this process was to transfer the valuable knowledge gained in El Paso to the rest of the staff. Every month during Professional Learning Community time, those who had attended the Math Solutions course shared a lesson with those who had not. Soon enough, the value of the Math Solutions methodology was acknowledged throughout the school and even throughout the Great Falls Public School District.

The district then brought Math Solutions to Great Falls to support any teachers in the district who were interested in taking the Foundations of Math I course. Sunnyside went one step further and promoted any teachers who participated in the professional development. Most teachers decided to take the course, including those who had attended the training in El Paso and wanted to brush up on their skills. Eventually, a decision was made to use the Math Solutions approach throughout all classrooms at Sunnyside.

There was ample support from the district and school staff to incorporate the new teaching methods into the curriculum at Sunnyside. Not only did the district bring back Math Solutions to offer courses two more times, Sunnyside also implemented structural adjustments to support its staff. Sunnyside set aside paid planning time for teachers to develop a curriculum based on the new instructional style, and brought in a consultant from Math Solutions to coach individual teachers directly in the classroom. The professional development that took place in Sunnyside incorporated a range of techniques, including lessons tailored to small groups of teachers, in-class teaching demonstrations, co-teaching, and observation and feedback activities. The Math Solutions Instructor also prompted engaging conversations whereby teachers spoke frankly about their own weaknesses and questioned current instructional practices in an effort to improve upon their methods.

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The Math Solutions professional development services has inevitably led to great successes in the classroom setting. Students began to enjoy rigorous math problems interwoven with several mathematical concepts, sometimes taking days to work through and solve the problem. These exercises developed the students' perseverance and demonstrated their ability to solve more advanced problems than the teachers had expected. By planning lessons around critical thinking skills and concepts instead of simple mathematical procedures, Sunnyside teachers were able to instill in their students a deeper understanding of math foundations that students could apply to a variety of math problems—not just the one they happened to be working on. Active participation and discussions about mathematical concepts ensued in classrooms. With the help of the Lesson Study program, teachers identified several factors that affected individual learning styles and used this understanding to create differentiated groups of students to work together, leading to higher engagement and motivation. These comprehensive improvements ultimately led to a dramatic increase in the CRT math scores over the years; Sunnyside Elementary School now proudly boasts an 84% rate of students who are proficient or above in math.

The staff at Sunnyside Elementary continues to use Math Solutions instructional strategies to strive for creative, effective ways to engage their students. Even if the push forward was uncomfortable at first, Math Solutions provided the instructors with new approaches to teaching and learning that fundamentally changed their approach to teaching and significantly improved the math performance of students across the entire school.

The Great Falls Public Schools vision statement is 'All kids are engaged in learning today ... for life tomorrow.' At Sunnyside, we believe this applies to teachers also. For teachers, the learning has come through working to change our mathematical instruction practice. This really was uncharted territory.

Kathy McLean, Sunnyside Elementary School Principal

Call 800.868.9092 to see what **Math Solutions** can do for your school or district.