

Introduction

When I was a new teacher, I was constantly searching for teaching ideas to use with my students. I combed every resource book I could find. I subscribed to teacher magazines. I talked with other teachers. I signed up for workshops whenever I could. As with all new teachers, my classroom experience was limited and my store of ideas was slim. Sunday nights typically wound up in a frenzied struggle to plan the week's curriculum in ways that (I hoped) would be motivating for the students and manageable for me.

Now, 33 years later, my store of ideas is no longer slim, and I can rely on my years of experience. But I'm still searching for ideas to enhance and expand my teaching repertoire. While I'm no longer looking for ideas to fill an empty larder, I realize the benefit of refining and expanding my teaching by adding new ideas and approaches. And even with my years of experience, trying new lessons is still a challenge. Focusing on doing something new in the classroom calls for teaching and thinking at the same time, without

the experience of being able to predict how students will respond. It's this challenge that has always helped keep teaching alive and exciting for me.

In the summer of 1984, I began teaching Math Solutions five-day summer courses for teachers in kindergarten through grade 8 and established the Math Solutions faculty to offer the courses nationwide. Previously, I had been involved with several mathematics inservice projects and enjoyed helping teachers think in new ways about teaching mathematics. As the Math Solutions courses grew, I realized that teachers needed help beyond the five-day summer experience. We began presenting Math Solutions one-day workshops during the school year, both to offer follow-up support to teachers who had attended a summer course and to provide beginning experiences for teachers who were interested in thinking more about their math teaching.

In the spring of 1986, in order to provide another way to offer support to teachers searching for new ways to teach mathematics, I wrote the first Math Solutions newsletter and mailed it to

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all of the teachers who had attended Math Solutions courses and workshops. Since then, I've written one or two newsletters each year, and our mailing list has grown to more than 40,000 teachers. Over the years, I've tried to keep all of the articles grounded in the realities of the classroom by presenting new ideas for classroom teaching, sharing new approaches to existing ideas, offering tips for classroom organization, and addressing general issues about math education.

To write the newsletters, I depended on the teaching ideas and classroom experiences of other teachers. Many ideas came from colleagues I worked with on a regular basis; some came from correspondence I received from teachers who had attended courses. Some articles offered activities that were new to me; others recycled familiar ideas, giving them new twists and energy. I wrote the classroom activities as vignettes, including details about classroom management as well as information about the mathematics being presented. As often as possible, articles were illustrated with samples of actual student work.

Over the years, writing the newsletters sparked other projects. I used articles from newsletters for the bulk of the ideas in *Math and Literature (K-3)*. I expanded some articles and included them in the series of *A Collection of Math Lessons*, and some ideas found their way into *Math By All Means* units.

For this book, I combed all of the back issues of the Math Solutions newsletters and identified articles that hadn't appeared in other publications or, if they did appear, had been much revised. I chose articles that presented practical, classroom-tested instructional ideas and compiled them into this resource of 50 lessons for teaching mathematics in grades 1 through 6. In some cases, I used my more recent experiences with the lessons to boost articles with additional instructional ideas or samples of children's work.

On the first page of each lesson, I indicate the span of grades for which the lesson is appropriate and the mathematics strands it addresses. The charts on pages 4–7 provide an overview of the strands and recommended grade levels for all the lessons.

Revisiting the past newsletters reminded me that teaching never stays the same. Improving and refining ideas is an ongoing part of the craft of teaching, and I hope that this book helps teachers examine and expand their classroom repertoires.