



Scholastic *Marilyn Burns Classroom Math Libraries*

The *Marilyn Burns Classroom Math Libraries* provide high-quality, engaging children's literature that contains mathematic themes. Each *Math Library* equips teachers with 25 titles and instructional support for using the literature to teach mathematics. Children learn key math concepts and skills while developing an appreciation for both math and literature.

Instructional Content

Each of the five distinct *Marilyn Burns Classroom Math Libraries*—for Kindergarten, Grade 1, Grade 2, Grade 3, and Grades 4-6—teach skills reflected in state and district mathematics frameworks. They specifically address the math standards as described by the National Council of Teachers of Mathematics (NCTM) in *Principles and Standards for School Mathematics* (2000):

Content standards:

- Number and Operations
- Algebra
- Geometry
- Measurement
- Data Analysis and Probability

Process standards:

- Problem Solving
- Reasoning and Proof
- Communication
- Connections
- Representation

Instructional Design

Books in the *Marilyn Burns Classroom Math Libraries* stimulate children's imaginations and make learning mathematics enjoyable. This provides low-achieving, as well as at-risk students with valuable motivation to increase their achievement. Students learn standards-based math skills that connect to the core math curriculum.

During lessons, teachers read the books aloud. This format allows all students, including those with poor decoding skills, to be exposed to and learn math concepts and vocabulary from the literature. After the read-aloud, students solve problems by engaging in topic-related activities and class discussions. Throughout the lesson, teachers have multiple opportunities to provide students with instruction that is targeted to their level of understanding, as well as to offer struggling students reassurance. Each *Math Library* provides five copies of five of the titles, which teachers can use during small-group instruction. This helps teachers differentiate instruction and provide low-achieving and at-risk students with more attention.

Motivation and Engagement

The *Marilyn Burns Classroom Math Libraries'* unique approach of connecting math and literature can broaden children's perspective about learning. Students for whom math is their first love learn to look at books in a new way and appreciate literature. Students who love to read, but who are "math-wary," are helped to experience the wonder of mathematics in the same way they already enjoy the wonder of books. Students who are not confident about their math and/or reading abilities can learn in a highly interesting and supportive environment. The *Math Libraries* program enriches both the math and reading curricula by effectively:

- Teaching children important and basic math concepts and skills
- Motivating students to think and reason mathematically
- Engaging students in problem-solving experiences
- Building children's appreciation for both math and literature
- Exposing students to a variety of content-area vocabulary, story themes, and literature genres.

Differentiated Instructional Strategies

The *Marilyn Burns Classroom Math Libraries* provide effective instruction and enriching materials that can help close the achievement gap between high- and low-performing students, including those who are minorities and/or disadvantaged. Marilyn Burns, a classroom teacher, children's book author, and professional development designer, chose the books for each *Math Library* based on the appropriateness of the math content to address important grade-level topics. She also evaluated books for the quality of their content and illustrations. The classroom-tested lessons provide an engaging forum for students to learn essential math skills.

The *Math Libraries* concentrate on providing students with lessons in Number and Operations, the cornerstone of Kindergarten-Grade 6 mathematics. Lessons address three essential aspects of arithmetic instruction—computation, number sense, and problem solving. Students learn skills in an interactive, supportive environment that can be instrumental in increasing low-performing students' achievement. Teachers can assess students' progress by evaluating individual assignments. Throughout the read-aloud time, instruction, and activities, teachers who are using the *Math Libraries* scaffold students' learning.

The *Math Libraries* provide disadvantaged children, many of who do not have access to books at home, with exposure to high-quality literature during read-aloud sessions. The lessons and literature support students with different learning styles and needs.

- The read-aloud format aids auditory learners and those with below-level reading proficiency.
- Visual learners and struggling students benefit from visual representations of concepts, when possible, and quality illustrations that connect to the text.
- Engaging hands-on activities provide kinesthetic, tactile, and visual experiences.
- English-language learners develop their oral language from listening to vocabulary- and concept-rich text, as well as by participating in class discussions and activities.

The *Marilyn Burns Classroom Math Libraries* can be effectively used in extended learning environments to provide academic enrichment. Books and corresponding lessons support grade-level math skills development leading to increased student achievement. The *Marilyn Burns Classroom Math Libraries* are available for Kindergarten, Grade 1, Grade 2, Grade 3, and Grades 4-6.

Each lesson specifies which math standards and topics it covers, making it easy for teachers and staff members to coordinate lesson sequence with districts' core math programs. The *Math Libraries'* design allows lessons to be flexibly incorporated into a learning environment outside of the regular school day.

- The books and lessons can be used in small or large groups, depending on students' needs and the format of the learning program.
- After reading a book aloud, teachers can immediately proceed to the mathematics lesson or delay it until the next time students' will be in attendance.
- Lessons have enough mathematical potential to last for a series of investigations.
- Teachers can reread and revisit the book to fit students' needs.

Home-School Connection

Each *Math Library* contains 45 high-quality books (25 individual titles plus four additional copies of five of the titles) that children can take home and share with their families.

 For additional information about *Marilyn Burns Classroom Math Libraries*, visit www.scholastic.com.