

# Math Perspectives

## Teaching and Assessing for Understanding



### Math Perspectives: Teaching and Assessing for Understanding.

To be sure our students are ready to meet the challenges of the 21st century, classroom teachers have to know how children develop an understanding of the core concepts of mathematics and the essential ideas that are milestones or hurdles in the growth of understanding. Kathy Richardson has identified these stages of learning as **Critical Learning Phases™**.

It no longer makes sense for teachers to teach their students procedures for solving math problems without meaning and understanding.

**Math Perspectives** realizes the importance of the professional role of classroom teachers and we know teachers need continued support and professional development to meet the growing challenges of the profession to make sure children have a solid foundation and understanding of the mathematics they need to be successful in upper-level mathematics and have the intellectual advantages each and every student deserves.

We offer a number of institutes, courses and classes for grades K-5 teachers of mathematics, math coaches, math coordinators, teacher leaders, professional developers, and other educators. We work closely with these educators to implement our proven strategies and assessments in their own classrooms and learning environments.

### Our Mission:

The mission of Math Perspectives Teacher Development Center is to provide Pre-K to 5th grade mathematics educators with tools, strategies, and assessments that will ensure that all students are successful in the study of mathematics and are able to use mathematics to solve problems and to think and reason mathematically.

### Improving Mathematics

#### Instruction: Math

Perspectives professional development helps schools/districts become ongoing learning organizations that directly and ultimately benefit students.



Our focus on teaching and assessing for understanding is identical to the underlying tenants of the **Common Core State Standards for Mathematics**.

## Math Perspectives: Teaching and Assessing for Understanding



### Assessing for Understanding

Assessing Math Concepts (AMC) is the only K-3 assessment series that truly uncovers students' knowledge of key concepts. The nine AMC assessments, developed by Kathy Richardson, go beyond "getting the right answers" to reveal students'

true understanding. Richardson has identified the "Critical Learning Phases" that students move through as they develop and understanding of the foundational mathematical ideas they need to know. The AMC assessments determine the level of thinking each student has reached. Knowing this level guides instruction so that the student is working at the most appropriate level for maximum growth and understanding. AMC will ensure students understand the mathematical concepts they need to know in elementary school to be successful in math in middle school and beyond.

### Assessing Math Concepts Series

- Counting Objects
- Changing Numbers
- More/Less Trains
- Number Arrangements
- Combination Trains
- Hiding Assessments
- Two-Digit Addition and Subtraction
- Grouping Tens
- Ten Frames

assessing  
**MATH**  
concepts™



### Teaching for Understanding

Developing Number Concepts by Kathy Richardson provides a cohesive curriculum featuring meaningful, hands-on activities that give students repeated math experience. The program is fully aligned with the Common Core State Standards.

- **Book 1:** Counting, Comparing and Pattern
- **Book 2:** Addition and Subtraction
- **Book 3:** Place Value, Multiplication and Division
- Developing Number Concepts Planning Guide

For more information on resources and professional development, contact us!

**Math Perspectives**  
Teacher Development Center

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