Research and Standards



Research has shown that "valid, reliable large-scale assessments are useful and important tools for examining students' progress and making a variety of comparisons" (National Council of Teachers of Mathematics 2006). Much emphasis has been placed on academic accountability. Teachers must test students to ensure they are successfully mastering the skills deemed necessary to complete a grade level before advancing to the next.

"Assessment can and should be used to measure students' growth and inform instruction. Using information from a range of assessments, teachers can diagnose students' difficulties and strengths and modify instruction so that all students can increase their mathematics learning" (National Council of Teachers of Mathematics 2006). Students who have learning difficulties or language barriers must also be tested. Teachers must have accessible tests that cover basic skills on a low readability level to determine these students' skills mastery.

Basic Math Assessments: Rounding, Reasonableness, and Estimation includes leveled activities that assess rounding, finding reasonable solutions, and **estimations** in ways that make them relevant and meaningful. The assessments included in the series have simple directions, low readability to minimize frustrations due to reading difficulties, and an adequate number of problems per activity to test understanding of the skills without overwhelming the student.

Basic Math Assessments: Rounding, Reasonableness, and Estimation meets both state and national standards (including the National Council of Teachers of Mathematics Standards 2000 Project) regarding numbers, operations, problem solving, communication, and connections.

National Council of Teachers of Mathematics. (2003). Principles and standards for school mathematics. http://standards.nctm.org/document/chapter8/index.htm (accessed June 23, 2004).

National Council of Teachers of Mathematics. (January 2006). High-stakes tests. http://www.nctm.org/about/content.aspx?id=6356 (accessed February 11, 2008).