

Research and Standards

Research studies have shown that many children and youth with learning disabilities encounter substantial difficulty in learning the basic number concepts. “Those with weak underlying math concepts require substantial help to make even the most basic practical use of math skills.”(Garnett, 1992.) *Basic Math Practice: Number Concepts* was designed to promote mathematical success for students of all levels and abilities.

Basic Math Practice: Number Concepts includes multiple activities and worksheets that teach and reinforce each of the ten basic number concepts in ways that make them relevant and meaningful. Jones, Wilson, and Bhojwani (1997) noted “Practice activities are essential components of mathematics instructional programs. Students with LD will generally need more practice and practice that is better designed than students without LD, if they are to achieve adequate levels of fluency and retention.” The activities included in this book have simple directions, low readability to minimize frustrations due to reading difficulties, a reduced number of problems on the page, and examples to aid in understanding of the skills.

Principles and Standards for School Mathematics by the National Council of Teachers of Mathematics [NCTM] (2003) states that “students need to learn a new set of mathematics basics that enable them to understand how mathematical ideas interconnect and build on one another to produce a coherent whole.” The scope and sequence of *Basic Math Practice: Number Concepts* does just that. The activities in this book address the ten basic number concepts through a variety of formats so that individual learning styles are addressed. The units are sequenced so that each unit builds upon the basic skills while reinforcing those skills taught in previous units.

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continued

Basic Math Practice: Number Concepts meets both state and national standards (including the NCTM Standards 2000 Project) regarding numbers, operations, problem solving, communication, and connections. As students complete the activities in this book, they will

- have a clear understanding of numbers, ways to represent numbers, and the relationship among numbers in and of the various number systems;
- understand, complete, and extend patterns;
- relate number concepts and use connections among mathematical ideas; and
- recognize and understand how mathematical ideas interconnect and build on one another to solve problems.

Garnett, K. (1992). Developing fluency with basic number facts: Intervention for students with learning disabilities.

Division for Learning Disabilities Journal of CEC. Retrieved September 21, 2005, from http://www.ldonline.org/ld_indepth/math_skills/garnett_ldrp.html

Jones, E. D., Wilson, R., & Bhojwani, S. (1997). Mathematics instruction for secondary students with learning disabilities. *Journal of Learning Disabilities*, 30(2), 151–163.

National Council of Teachers of Mathematics. (2003). *Principles and Standards for School Mathematics*. Retrieved June 23, 2004, from <http://standards.nctm.org/document/chapter8/index.htm>