

# You Don't Have to Be Einstein to Teach Math in Preschool!

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Teaching mathematics does not come easily to many early childhood educators. Math phobia and poor professional preparation often inhibit us from including mathematics in the preschool curriculum. One way to overcome this fear is to recognize that math is more than numbers and counting. It also involves logical operations like sorting and matching, arranging by size, dealing with space and time—the kinds of things we do every day in our own lives. Seen this way, math is not so intimidating. In fact, to encourage young children to explore these diverse domains of mathematics, it helps to be grounded in life's ordinary and concrete events.

To enable early childhood teachers and young children to enjoy the adventures and discoveries that abound in the wide world of mathematics, High/Scope is publishing a new teacher idea book titled *I'm Older Than You. I'm Five! Math in the Preschool Classroom*. Written by Ann S. Epstein and Suzanne Gainsley, this book contains 50 step-by-step activities teachers can use throughout the day to provide young children with a broad array of math experiences.

Recognizing that early math education must be both intentional and age appropriate, the authors of *I'm Older Than You* explain how to promote learning in the five High/Scope mathematics key experience areas: classification, seriation, number, space, and time. Each activity is also aligned with the early childhood standards of the National Council of Teachers of Mathematics (NCTM) in number and operations, algebra, geometry, measurement, and data.

## Book Content

As a foundation for the math activities presented in the book, *I'm Older Than You* includes a summary of the latest research on why and how to teach math in the preschool years. Also discussed is the High/Scope approach to early math, with descriptions of how to address each of the math key experiences through the learning environment, daily routine, adult-child interactions, and assessment. The book presents 10 activities in each of the five mathematics key experience

areas—50 activities in all—with the following information for each:

- Time of day—Time(s) during the daily routine when the activity can be carried out
- Materials—What you need to do the activity
- Beginning—How to introduce the activity to children
- Middle—How to extend children's explorations of math concepts during the activity
- Language from children—The kinds of statements you are likely to hear that show what children are doing and thinking as they engage in the activity
- End—How to bring the activity to a close
- Follow-up—What to do during subsequent days and activities to continue children's learning in this area of mathematics
- Key experiences—The High/Scope key experiences in (a) the mathematics domain that is the focus of the activity, (b) other mathematics domains, and (c) other domains of development
- Mathematics on the Preschool Child Observation Record—Relevant items on the Preschool Child Observation Record (COR) addressed by the activity
- NCTM standards—Related NCTM standards for grades pre-K to 2

## Activity Examples

The activities presented in *I'm Older Than You* build on children's natural interests and pursuits and mainly use materials found in most classrooms. Many activities can be implemented at different times of the day. For instance, in the classification activity "Guess Who," children use one or more attribute clues to guess a mystery person chosen by the teacher. This can be done at large-group time or anytime the class is transitioning to a new activity. "Patterns in Motion"

(seriation) engages children in creating patterns with body positions and movement. Children hit the sidewalk in “Number Walk” (number), combing the neighborhood for numerals on signs, license plates, and buildings. “Fence Weaving” (space), another outdoor activity, involves preschoolers in weaving assorted materials horizontally and vertically through fences and examining the results from different perspectives. “How Many Songs Will It Take?” (time) helps liven up cleanup time as children estimate the number of song or verse repetitions they will need to finish tidying up the room.

Early mathematics education presents us with a unique challenge as well as an opportunity. The challenge is to systematically introduce math concepts in ways that respect preschoolers’ concrete thinking. The opportunity is to take advantage of the many ways math is manifested in the world and children’s natural desire to learn about it. *I’m Older Than You* shows teachers how to both meet the challenge and seize the opportunity—without being a math genius.

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***I’m Older Than You. I’m Five! Math in the Preschool Classroom* will be available in spring 2005. For ordering information, please check our Web site: [www.highscope.org/welcome.asp](http://www.highscope.org/welcome.asp)**