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## Report Urges Changes in the Teaching of Math in U.S. Schools

By [TAMAR LEWIN](#)

In a major shift from its influential recommendations 17 years ago, the National Council of Teachers of Mathematics yesterday issued a report urging that math teaching in kindergarten through eighth grade focus on a few basic skills.

If the report, "Curriculum Focal Points," has anywhere near the impact of the council's 1989 report, it could signal a profound change in the teaching of math in American schools. It could also help end the math curriculum struggles that for the last two decades have set progressive educators and their liberal supporters against conservatives and many mathematicians.

At a time when most states call for dozens of math topics to be addressed in each grade, the new report sets forth just three basic skills for each level. In fourth grade, for example, the report recommends that the curriculum should center on the "quick recall" of multiplication and division, the area of two-dimensional shapes and an understanding of decimals. It stopped short of a call for memorization of basic math facts.

The 1989 report is widely seen as an important factor nudging the nation away from rote learning and toward a constructivist approach playing down memorization in favor of having children find their own approaches to problems, and write about their reasoning.

"It was incredibly influential," said Chester E. Finn Jr., a Department of Education official in the Reagan administration. "More than half the states explicitly acknowledged it in devising their own standards. This report is a major turnaround."

Dr. Finn added, "This is definitely a back-to-basics victory, emphasizing the building blocks children have always learned that a large part of the country believes are important, and moving away from the constructivist approach some educators prefer, in which children learn what they want to learn when they're ready to learn it."

The president of the council, Francis Fennell, a professor at McDaniel College in Maryland, played down the degree of change the new report represented, adding that he did not like talk

of “math wars.”

Dr. Fennell pointed out that the report did not take a stand on instructional methods, allowing teachers to use whatever works: worksheets, calculators or materials like rods that children can manipulate to try out different numeric relationships.

In a way, the new report stands as a plea for consensus. “Take this opportunity to share the best that we know as we work together to produce improved tools that support our shared goal of a high-quality mathematics education for every student,” the introduction says.

And consensus may be at hand. Some of the same math professors who last year released a chart — aimed directly at the National Council of Teachers of Mathematics — detailing the “10 myths” of “N.C.T.M. (Fuzzy)” math now find themselves generally in line with the new report.

“It represents an enormous evolution from the 1989 standards, from the perspectives and attitudes that were present in both camps then,” said R. James Milgram of Stanford, one of the “10 Myths” signers. “The fact that we are now collaborating is incredibly important.”

Math skills have taken center stage in the national debate over education since the 2003 Trends in International Mathematics and Science Study found that Asian students outperformed American students. Almost a quarter of American college freshmen take a remedial math course, according to the National Science Board.

Most states now have math curriculum standards setting forth dozens of topics, or “learning expectations,” to be covered in each grade — so many that it is difficult to ensure that students will learn the most important math skills.

The report notes great inconsistencies in which math topics are covered in which grades, how they are defined and what students are expected to learn.

It stops short of recommending a national math curriculum but does try to outline a curriculum narrowed to the most important skills in each grade.

“We tried to identify the really key things, the things a student has to focus on to progress,” said Sybilla Beckmann, a [University of Georgia](#) professor who helped write the report. “People like to paint this in terms of black and white, back-to-basics and constructivism, but I think there’s a lot of agreement about what students need to know.”