

President's Message

Curriculum Focal Points: What's the Point?

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A few weeks ago NCTM released *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence*. This document of fewer than 50 pages presents three major topics of emphasis at each grade level, pre-K–8. The publication is intended to serve as a catalyst for important discussions and decision making on curricular frameworks at the state and local school district levels.

Why focal points? Walk into any classroom in this country and ask a teacher what seems to “govern” the mathematics taught in prekindergarten through grade 8 mathematics. They are sure to point to their state or local school district’s curriculum frameworks. These frameworks come in all shapes and sizes. Forty-nine of the fifty states have mathematics curriculum frameworks that contain anywhere from 30 to 100 or so expectations for any given grade level. Can you imagine the challenges and frustrations that many teachers experience as they try to figure out what is really important at a particular grade level?

Of course, one might argue that this quandary is easy to resolve. As most know, No Child Left Behind requires a formal assessment of mathematics for grades 3–8. Thus, one way to determine what’s important is simply to teach what’s tested. But is it safe to assume that these assessed topics are actually essential for a particular grade level? Does their assessment imply consensus on the important mathematics that students should know deeply and well before they encounter high school mathematics? This is what NCTM’s *Curriculum Focal Points* is all about.

It is our intent that mathematics leaders at the state and local school district levels will use the *Curriculum Focal Points* document to begin discussions to help determine the important mathematics at each grade level. Such discussions, perhaps even debates, are needed—now. Over the years, I have regularly asked teachers, “What do you hope your students will really understand when they leave you to enter the next grade?” Their responses are pretty much the same, regardless of locale, because most *experienced* teachers and teacher leaders know where to place their focus. Now we need others to join in the discussion. By including mathematics leaders at the state and local school district levels, textbook publishers, and assessment developers, we can ensure that all students have the opportunity to learn important mathematics—deeply and well.

What is a curriculum focal point? In the *Curriculum Focal Points*, NCTM identifies three major mathematical concepts, skills, or understandings for each grade level. These are the areas of focus or emphasis at that grade level. The curriculum focal points and their connections can be used as the foundation for mathematics learning in that grade and for extended understandings in subsequent grades.

A focal point is much more than a topic of emphasis. Consider this example from grade 4: “Developing quick recall of multiplication facts and related division facts and fluency with whole number multiplication.” Underlying this point of emphasis is understanding place value, multiplication, models for multiplication, and the use of the properties of operations, particularly the distributive property. Although the quick recall of facts and fluency with the operation is important, particular attention must be paid to how and why such procedures, including the standard algorithms, work and how they can be used to solve problems.

What’s the point? Mathematics leaders at every level need to be mindful of the important mathematics that should be taught and learned at each grade level. Even the most experienced teachers can use assistance with this issue, particularly if they change grade level or school level assignments. Focal points comprise the concepts, skills, and understandings that are the building blocks for higher-level mathematics. In the end, this may mean shorter, but more incisive lists of expectations for deeper learning.

Why publish this now? Questions about mathematics education and what should be taught from grade to grade are currently receiving a lot of public attention. And the oft-repeated criticism that U.S. mathematics curricula are “a mile wide and an inch deep” has caught the attention of parents, school board members, publishers, policy makers, and the U.S. Department of Education. In addition to these influences, a report by NCTM and the Association of State Supervisors of Mathematics entitled *Standards and Curriculum—a View from the Nation* (2005), along with the ongoing work of the Center for the Study of Mathematics Curriculum (CSMC), have prompted the Council to develop the Curriculum Focal Points. NCTM should take the first step in this initiative.

In developing the Curriculum Focal Points, the writers reviewed the mathematics curriculum frameworks from many states, Japan, Singapore, and other countries. Drafts were vetted by 70 reviewers representing a cross section of state and local school district mathematics leaders, mathematicians, policy makers, classroom teachers, and mathematics educators. *Curriculum Focal Points* is now ready for you.

Use *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics* to guide your curriculum discussions. Adapt the recommendations, if needed, to meet your needs, but think seriously about the important mathematics that all children should learn deeply and well in prekindergarten through grade 8. Use the Curriculum Focal Points as the starting point or launch pad for such endeavors.