

# Math Standards

## **Background**

Washington's current mathematics standards were created by the Commission on Student Learning in 1995. (See issue paper, "Education Reform."). The supporting Grade Level Expectations were developed by the Superintendent of Public Instruction effective 2002.

The standards reflect the "reform math" promoted by the math education profession, particularly the initial work of the National Council of Teachers of Mathematics (NCTM) "Principles and Standards for School Mathematics," which was published in 1989. The standards and objectives of reform math have a heightened focus on higher order thinking skills. The curricula representing reform math include *Connected Math*, *Investigations in Numbers, Data & Space (TERC)*, *Core-Plus Mathematics*, *Interactive Mathematics Program (IMP)*, *Math Trailblazers*, and *MathLand*.

Leading Washington advocates for reform math include the University of Washington College Of Education and the Mathematics Education Collaborative.

Dissatisfaction with math instruction in Washington state has been evident as early as 2003. The concerns initially focused on curriculum choices of schools. Parents, commentators and educator began to voice disapproval of texts and schoolwork that were too heavily focused upon thought processes and too light on traditional algorithms and processes. These concerns surfaced across the state as districts went through math curriculum adoption processes. Ultimately the objections focused on the state "Grade Level Expectations" on which curricula selection was based.

A number of groups formed across the state to oppose "fuzzy math" and to seek a restoration of "traditional math." Leading organizations include Where's the Math, Parents for Math Matters, Math 4 Kitsap, and Math Underground. The curricula most often cited as reflecting traditional math is *Primary Mathematics Series* ("Singapore math"), *Saxon Math Program*, and *Modern Curriculum Press Mathematics (MCP)*.

## **Policy developments**

In 2005, OSPI and Governor Locke's office requested HB 1068, which repealed the state's mandate that students in third, sixth and ninth grade take the Iowa Test of Basic Skills, a nationally norm-referenced standardized test.

In 2006 Rep. Anderson introduced HB 2506 as the first legislation calling for the revision of the standards to restore emphasis to traditional instruction and algorithms in mathematics. In that year, Rep. Talcott also introduced HB 2902 permitting scores on more traditional standardized tests (ACT, SAT and PSAT) to count in lieu of the tenth grade math WASL. This flexibility was passed as part of SB 6475.

In 2007, Sen. Pflug and Rep. Schindler introduced SB 5582 and HB 2172, respectively, to establish a panel to advise the State Board of Education in reviewing the state's math standards and proposing how they might be strengthened. Elements of these policies were incorporated into HB 1906, which passed and directed that this review be completed and presented to the Legislature in 2008.

Also in 2007, Reps. Sullivan and Priest introduced HB 2327 which specified that the tenth grade math WASL would be replaced with two end-of-course exams in algebra and in geometry. This would have focused math instruction on a more traditional method than the reform math or “integrated” approach. The end-of-course exam concept did become law with HB 3166 in 2008, but was amended allowing students to take either exams for algebra and geometry or exams for integrated reform math I & II.

In 2008 bills were introduced to authorize the State Board of Education, rather than the Office of the Superintendent of Public Instruction, to finalize the revision of the math standards and oversee the selection of the state model curricula for math. SB 6534 became law and the State Board is in the process of finalizing the state math standards.