



San Francisco Unified School District NEWS ABOUT MATH FOR GRADES 6–12

This is an exciting time for SFUSD schools — what we teach and how we teach are evolving to keep pace with the expectations our future graduates will face when entering college or the workforce. Beginning in the 2014-2015 school year, SFUSD and districts across the nation will start using a new set of standards called the Common Core State Standards. The Common Core State Standards in Math (CCSS-M) require a change in the course sequence for mathematics in grades 6-12.

WHAT ARE THE COMMON CORE STATE STANDARDS?

The Common Core State Standards (CCSS) are world-class standards that reflect the kind of rigor demonstrated in academically high-achieving nations. The CCSS were designed with college and career readiness in mind so that our students will be able to successfully compete in a global economy.

WHY DO WE NEED TO CHANGE THE WAY WE ARE TEACHING MATH IN MIDDLE AND HIGH SCHOOLS?

The way we have been teaching math hasn't prepared our students, not just in SFUSD, but across the nation, as evidenced by international tests of math achievement. In San Francisco about half of our students fail to reach proficiency in Algebra 1 the first time they take the course in 8th grade and many of these same students continue to struggle through high school math. A change is needed.

HOW WILL SUPPORT FOR COLLEGE AND CAREER READINESS BE DIFFERENT?

The introduction of new standards gives SFUSD an opportunity to better define a coherent, focused, and rigorous math curriculum. The new standards ask students to deeply understand math and its processes — including problem solving, reasoning, and explaining your thinking. Teachers will offer rich mathematical experiences that are not necessarily defined by a specific textbook. Students will be asked to work together more often to solve problems. What's important to know is that teachers will be focusing on fewer concepts to allow students to gain a deeper, more meaningful understanding of each concept. And, according to the best mathematicians in the country, the Common Core State Standards are much more rigorous and relevant.

WHY IS THE GRADE 6–12 MATH COURSE SEQUENCE CHANGING?

All students should have learning experiences that make sense as they move from course to course to ensure that they will be college-ready by the end of high school. The new course sequence in mathematics does this by focusing deeply on fewer concepts, allowing students to gain a strong foundational understanding in each course. At SFUSD, all schools grades 6–12 will offer a new course sequence (that is, the order in which students are taking their math classes) so that students can build upon their conceptual understanding from year to year. Rather than taking a different approach each year, each new standard that is introduced will come as an extension of the previous years' learning.

WHAT WILL THE NEW COURSE SEQUENCE LOOK LIKE IN MIDDLE SCHOOL?

In middle school all students will take math classes that include algebra in every grade level, with increased depth as the grades progress. The courses are called CCSS Math 6, 7, and 8. This new



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course sequence ensures a solid foundation that prepares students for college mathematics. The content in the old Algebra 1 course under the previous California standards is now divided between the CCSS Math 8 course and the CCSS Algebra 1 course. Next year, all 8th graders will take CCSS Math 8, and the following year these students will take CCSS Algebra 1 in 9th grade. Both CCSS Math 8 and CCSS Algebra 1 are more rigorous than the previous Algebra 1 course. These courses also include content previously taught in more advanced high school courses, as well as content not previously taught in middle and high school math, such as statistics.

WHAT WILL THE NEW COURSE SEQUENCE LOOK LIKE IN HIGH SCHOOL?

With a solid foundation from CCSS-M in grades 6–8, all students will be more prepared for college mathematics, including successfully meeting the University of California “c” requirement and SFUSD’s graduation requirements. All students will take CCSS Algebra 1 in 9th grade and CCSS Geometry in 10th grade once the full transition to the new course sequence is complete. In 11th grade students (with assistance from their families) will be able to choose from two course offerings: Algebra 2 or a compressed Algebra 2 and Precalculus course. The compressed course option would allow students to take AP Calculus in their senior year. Students could choose AP Statistics in 12th grade.

WHAT IF MY CHILD IS IN 8TH GRADE THIS YEAR (2014) AND TAKING ALGEBRA 1?

As SFUSD makes the transition, students who are taking Algebra 1 and meet the district requirements for proficiency will move to CCSS Geometry in 9th grade. Next year (2014 – 2015), all 8th graders will take CCSS Math 8.

WHAT IF MY CHILD IS READY FOR MORE ADVANCED MATH THAN WHAT IS OFFERED?

Being advanced no longer means skipping a course or jumping ahead. All of the courses in the CCSS are necessary and are designed to build over a student’s math career. Students will have the opportunity to compress two courses into one year after 10th grade, which will give them access to AP Calculus. The California Math Framework, adopted by the State of California in November 2013, states very clearly that CCSS Math 8 is more rigorous than the old Algebra 1 course. All students in the new sequence will be challenged with more advanced mathematics content and higher expectations around conceptual thinking and communicating.

HOW ARE WE PREPARING TEACHERS FOR THIS CHANGE?

The transition to the Common Core State Standards in Math (CCSS-M) began in SFUSD a few years ago. SFUSD’s Curriculum and Instruction division is working with teacher leaders to support other teachers who are now making this transition. Curriculum and Instruction’s Math Department, together with 300 teachers from across the district, has been gathering and field testing the best resources to align with the CCSS-M. It will take time for every teacher at every school to become familiar and comfortable with this more rigorous set of standards, but the change has begun.

FOR MORE INFORMATION: <http://www.sfusdmath.org>