

October 9, 2013



San Dieguito Union High School District Superintendent Rick Schmitt's Monthly Update

Superintendent Schmitt plans to update the greater San Dieguito Union High School District community through our local media with a monthly update. Topics covered will include curriculum, facilities, budget, safety, and other specific and special interest topics. Today's update focuses on Common Core Transition.

SDUHSD COMMON CORE TRANSITION UPDATE

With the adoption of the Common Core State Standards (CCSS) for English/Language Arts and Mathematics, one of the first and most important decisions facing high school districts is the selection of a curricular pathway for high school mathematics. San Dieguito Union High School District (SDUHSD) is currently planning for a gradual & multi-year CCSS implementation, beginning with the 2014-15 school year. The CCSS for high school mathematics include two different curricular pathways - the "Traditional" pathway and the "Integrated" pathway. Each pathway represents a different approach to understanding and teaching math. The Traditional curricular pathway organizes math curriculum into discrete sub-areas within the larger discipline of mathematics and the associated course sequence reflects this by separating the math curriculum into separate Algebra I, Geometry, and Algebra II courses. The Integrated curricular pathway approaches the various sub-disciplines of math as inter-related parts of a whole and therefore includes content from Algebra I, Geometry, Algebra II, and Statistics throughout a sequence of three courses (Integrated Math I, Integrated Math II, and Integrated Math III). The CCSS Math curriculum in grades K-8 is an integrated curriculum so the decision for high school districts centers on the curricular approach for high school math courses.

Examples of Standard "At-Grade Level" CCSS Math Pathways

CCSS Pathway	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Traditional	Math 7	Math 8	Algebra I	Geometry	Algebra II	Other advanced math
Integrated	Math 7	Math 8	Integrated Math I	Integrated Math II	Integrated Math III	Other advanced math

While the Traditional pathway is likely familiar to those who attended high school in the United States, an integrated curricular approach to mathematics is the dominant approach to teaching math in the rest of the world. Proponents of an integrated approach argue that it helps students see the natural inter-connections between different areas of mathematics and that the approach

better reflects how mathematics is applied outside of the school setting. From engineering to personal finance to the construction of a backyard shed, “real world” problems almost always require us to appropriately apply different types of math simultaneously, rather than requiring only algebra or geometry in isolation from each other. Many mathematicians believe that helping students understand how the different sub-disciplines of math inter-relate and how to appropriately and simultaneously apply different types of math to solve complex problems is crucial to developing deep understanding and the practical application of mathematics among our students. Further, when students move through the Traditional pathway, there are extended gaps in time during which they do not study parts of math (i.e., a gap of a full year between Algebra I & Algebra II) leading to a lack of retention over time. Because an integrated approach teaches concepts from algebra, geometry, and statistics each year, there is less opportunity for students to “forget” what they’ve learned of each. Finally, the new standardized math assessment tied to the CCSS that all 11th graders will take, along with the various college math readiness assessments (SAT, ACT, & EAP), are all integrated summative math assessments - they do not test math knowledge and skills as separate disciplines, instead testing all of the areas of math collectively.

The integrated approach to math is not a new concept. Not only has it been the dominant approach to teaching math outside of the United States for more than a century (including in all of the highest-achieving countries in the world), but it is an approach that has been used by a number of districts throughout the United States for decades. Further, colleges and universities around the country have, and will continue to, view both the Integrated and Traditional pathways as rigorous and appropriate college preparatory math curricula. In April of 2013, the University of California took the unusual step of releasing a formal public statement in which the UC acknowledged that while the Traditional pathway is historically the more typical curricular approach in the U.S., the UC views the Integrated pathway as an equally viable and appropriate college preparatory curricular approach.

Over the last several months, SDUHSD Math teachers have engaged in the study of the two different curricular pathways and discussed the advantages of each approach. Ultimately, the unanimous recommendation of our Math Department Chairs was to adopt the Integrated curricular pathway in our district. With this decision made, we have begun work on several key tasks:

- **UC Approval:** We have begun work on submitting Integrated Math I, II, & III courses to the UC for formal approval. We anticipate approval this spring.
- **Instructional Materials:** With new courses come new instructional materials and textbooks. We have begun the process of researching instructional materials and textbooks for the new Integrated courses for adoption for the 2014-15 school year.
- **Course Sequencing:** We have begun discussion of the various course sequencing options from grades 7-12. Just as we do currently, we plan to continue to offer students standard college preparatory courses, honors/accelerated options, a full complement of Advanced Placement (AP) math courses, and opportunities for students to advance through course sequences more rapidly in order to allow access to advanced and AP courses earlier in the high school years. Additionally, we will continue to offer support and intervention courses for students who struggle with mathematics. Our course sequences and options will be completed by mid-December.

- **Transition Plan:** Also by December, we will have a plan for how to transition our current middle school students into the new high school course sequences. Middle and high schools students who are currently in Geometry or higher courses will continue through our existing traditional course sequences as we phase this sequence out as our current students graduate over the next four years.
- **Alignment with Feeder Districts:** We are working closely with the five districts that send students to our district for middle and high school to ensure that our curricula and course sequences are aligned allowing for smooth academic transitions for our incoming students. Those districts are Cardiff, Del Mar, Encinitas, Rancho Santa Fe, and Solana Beach.

In the coming months we will conduct a number of public meetings at our schools and in conjunction with our feeder districts to inform our students and families about the changes inherent to the Common Core standards for both English/Language Arts and Mathematics, with particular focus on the changes in our math course sequences. Our transition to the Common Core standards will be a gradual, multi-year process accomplished through the provision of ongoing high-quality professional development for all of our teachers and through productive experimentation and collaboration among our teachers. We are excited about this new approach to educating our young people and firmly believe that the 21st century skills emphasized in our new standards will prepare our students for post-secondary success. We will announce our public meetings through this publication, the [SDUHSD website \(www.sduhsd.net\)](#), individual school websites, [Facebook](#), [Twitter](#), area elementary district websites, and via email to our 12,000 plus SDUHSD families.

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