



Dwyer Middle School / Sowers Middle School

Frequently Asked Questions ♦ Common Core Mathematics

The Huntington Beach City School District is committed to preparing our future graduates for success in the 21st Century. To meet the expectations of world-class universities or productive positions in the workforce, we have refined what and how we teach through the Common Core State Standards. Competencies have been influenced by research on what colleges, professionals, and industry experts want from high school graduates. Specifically, the Common Core Standards were developed with a clear focus across grade levels. To accomplish this, the CCS development teams reorganized math topics into related groups to more closely resemble curriculum in high-performing countries that emphasize problem-solving skills and application of complex procedures. The shift we are undergoing stresses comprehension of the interactions of mathematical concepts over the desire to calculate the “correct answer”. As with any large change, this evolution comes with questions. Below is a list of Frequently Asked Questions (FAQs) and how the Huntington Beach City School District is addressing each question.

1) *What are the Common Core State Standards*

The Common Core State Standards (CCSS) are research-based standards that reflect the rigorous expectations of colleges and 21st Century careers. Additionally, the standards mirror an analysis of mathematical expectations of academically high-achieving nations. The CCSS were designed in a collaborative effort with colleges, industry professionals, technology experts, educators, researchers, and policy makers. Specifically, thousands of universities, professions, job sectors, and leaders were surveyed regarding the mathematical skills needed to be successful.

2) *Why do we need to change the way we are teaching mathematics in middle school and high school?*

The current pedagogy of mathematical content has focused primarily on “getting answers” rather than *learning* mathematics. While Huntington Beach City School District has always done an exceptional job at providing students with enhanced learning opportunities, the CCSS are an opportunity for the district to increase the rigor and mathematical skills of our students. One of the major shifts in mathematical instruction is the real-world application of mathematical concepts. Specifically, students will continue to learn the “nuts-and-bolts” of calculations and formulas, however, students will now be asked to apply their knowledge to original real-world situations where they must interpret, analyze, and solve.

3) *How will preparation for college and career readiness be different?*

The implementation of the CCSS gives Huntington Beach City School District an opportunity to enhance our mathematics curriculum. The new standards bring an added component of problem solving, reasoning, and explaining your thinking and are defined in the CCSS Eight Mathematical Practices. Teachers will offer additional mathematical experiences that are not necessarily outlined by a specific textbook. Rather, the additional hands-on applications will be guided by the necessary skills for college and career readiness. The additional college and career preparation comes from the instructional shift of “knowing math” to “doing math”.

4) *What are the eight Standards for Mathematical Practices and how do they influence mathematics instruction?*

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

These eight skills are developed from Kindergarten through graduation in high school. Created to develop 21st Century skills such as critical thinking, communication, collaboration, and creativity in students, these practices are a combination of mathematical fluency (computation), problem-solving, and reasoning skills. Our instruction is heavily influenced by these practices, resulting in new types of questions for students to answer. Administrators and teachers are receiving professional development and aligning with the high school district for delivery of these practices in our instruction.



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5) *Why is the grade 6th – 8th grade mathematics course sequence changing?*

In order to fully prepare students for the expectations of highly selective universities and competitive industries, Huntington Beach City School District has structured their middle school course sequence to provide students the greatest advantage. The new course sequence (courses students take during middle school) is structured to provide coherent, connected, and comprehensive learning experiences as outlined in the CCSS.

6) *What will the new mathematics course sequence look like in middle school?*

For the majority of our middle school students, the mathematics course sequence students will take is CCSS Math 6, 7, and 8. Each grade level incorporates the increased depth, complexity, and rigor as outlined in the CCSS. This new course sequence is designed to ensure that students are fully prepared for success in high school, college, and career.

7) *What will this new mathematics course sequence mean for my child?*

The new mathematics pathway will mean that students take CCSS Math 6 as an incoming sixth grader. Students will subsequently take CCSS Math 7 and 8 or Accelerated versions of both classes during seventh and eighth grade, respectively. With this course sequence students will gain the foundational mathematical skills needed to excel in more rigorous course work during high school and college than with the previous state standards. Additionally, this pathway will ensure that students are appropriately prepared for state assessments. Specifically, the new state testing (SBAC) requires that all students take grade level assessments rather than course level assessments. By following this pathway, students will be exposed to the content, standards, and applications of the assessment structure they will encounter.

8) *What if my child is ready for more advanced mathematics, then what is offered?*

Most students and parents are concerned with advancement of mathematics course work at the middle school level because of the ultimate goal to take AP Calculus in high school. With the pathway at the middle school, students will be prepared for rigorous mathematical course work at the high school level and have the option to take AP Calculus in high school. Because the Common Core weaves the content of the Pre-Calculus course throughout the new middle and high school course sequence, the pre-calculus course may no longer be needed. Thus, *students no longer need to "skip" a grade to get to Calculus in High School*, in fact with the increased coherence and rigor of the Common Core, skipping content is highly discouraged. With this in mind, there may be a few individual cases of true advancement that will be addressed on an individual basis.

9) *How does the District know if my child is ready for acceleration?*

Students who have displayed a history of academic success with mathematics are eligible for acceleration in seventh and eighth grade, subject to meeting criteria. At the end of 5th grade, students have the opportunity to take a diagnostic test during the Spring. This test encompasses the curriculum covered in CCSS Math 6, reflecting the critical thinking and application skills necessary of any student passing the sixth grade course. Students who score well on the diagnostic and other criteria assessments, including performance in class, will be monitored during sixth grade for the potential for acceleration in seventh grade.

10) *What about mathematics pathways in the Huntington Beach Union High School District?*

Our district continues to work closely with HBUHSD in regularly held articulation meetings to communicate and plan for the most appropriate math course placement suited for students' needs. For information regarding mathematics pathways at the high school, please review our website at <http://huntington-ca.schoolloop.com/CCSS>. You can also contact staff at the Huntington Beach Union High School District at (714) 903-7000.



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11) *How are we preparing mathematics teachers for this change?*

Teachers have been preparing and are continuing to adjust their craft for this change. Collaborating during the summer, teachers created standards sequence schedules to determine appropriate timelines for instruction to plan their courses. Additionally, teachers participate in ongoing professional development focusing on instructional strategies and course planning from the Orange County Department of Education. Administrators and teachers continue to work with Dr. Patrick Callahan, the Co-Director of the California Mathematics Project, as well as the Huntington Beach Union High School District to align and coordinate instruction in the aforementioned articulation meetings. Teachers will also begin administering new CCSS-aligned interim benchmark assessments to gather and analyze data on student progress to make instructional decisions.

12) *What supports are available for students and parents during this transition time?*

The district website (hbcasd.us) includes a section under the “Parents” tab. After selecting “Educational Programs”, “Common Core State Standards” will be on the left menu and includes resources and links that we believe may be helpful. Additionally, this page will be updated in the future with a “Parent Portal” for helpful tips and tricks for parents. Some of the links included are:

- CCSS Initiative Resources
www.corestandards.org/about-the-standards/frequently-asked-questions/
www.corestandards.org/other-resources/key-shifts-in-mathematics/
- Common Core Standards by Grade Level
www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf
- National Council of Teachers of Mathematics
www.nctm.org