



Rationale for Mathematics 5 – 8 Sequence Revisions 2018-2019

The purpose of this document is to address parent concerns regarding math course sequencing. To ensure Pearland ISD students have a solid conceptual foundation in mathematics, mathematics course sequencing for grades 5-8 was adjusted in the 2018-2019 school year.

In 2015-2016, the State of Texas revised the TEKS (state standards) for mathematics; because of these changes, Pearland ISD began examining the district sequence of courses. In addition, the state began updating the Texas State Plan for the Education of Gifted/Talented Students; this product is currently under revision and is expected to be released soon. Dr. Nyla Watson, Assistant Superintendent of Instructional Programs, serves on the Chief Academic Officer Advisory Committee for Mike Morath, the Commissioner of Education. Margo Giguee, Director of Advanced Academics, is also on numerous regional and state committees. As a result of their participation in these committees, Dr. Watson and Mrs. Giguee are often privy to information not yet released to the public. Because of the state changes and information disseminated to district personnel at their various state committee meetings, Pearland ISD began exploring changes to math sequencing at the district level.

In November 2017 during the Curriculum & Instruction Principal Meeting, principals and other curriculum and instruction personnel discussed the relevance of changing the math sequencing beginning in 5th grade. A committee comprised of middle and junior high principals; C&I, Testing, and Advanced Academics Personnel; and a middle school counselor was formed and they met five times in 2018 to plan for strengthening the vertical alignment and the math course sequencing. The Committee recommended the following two revisions to the advanced math sequence for Pearland ISD:

Revision #1:

Students enrolled in 5th Grade Advanced Mathematics only receive instruction in 5th Grade TEKS

Rationale:

Students in 5th Advanced Math class will be able to:

- Build a deeper conceptual foundation of mathematics
- Explore mathematics by participating in project-based learning
- Participate in higher level questioning
- Extend mathematical concepts
- Strengthen application to real-world experiences

Revision #2:

Adjust the pacing and sequencing of instruction in 6th and 7th grade Advanced Mathematics to ensure TEKS alignment across the grade levels. The outcome would be this:

- 5th Grade Advanced Math: In depth instruction of 5th grade TEKS
- 6th and 7th Advanced Math: Instruction of 6th – 8th grade TEKS

Rationale:

- Addresses the need for appropriate alignment of 6th-8th grade TEKS in 6th and 7th advanced mathematics while also allowing for broader and deeper instruction
- Allows for students to continue to register for Algebra 1 PAP in 8th grade

Summary of Changes:

Students on the advanced path receive deeper and broader instruction in all of the 5th grade TEKS during 5th grade, accelerate the pace and depth of instruction in 6th and 7th grade, and continue to take Algebra 1 in 8th grade. As in past years, students have had the opportunity to demonstrate mastery level of 80% of the required TEKS (state standards) through Credit by Exam (CBE); these tests are administered four times annually.

Communication:

- November 2017: Principal discussion in regular Curriculum and Instruction Principal meeting; follow-up discussion multiple times throughout 2017 and 2018.
- September 20, 2018: Principals approved sequence changes at the C & I Principal meeting.
- September 21, 2018: Teachers teaching 5th grade advanced math were informed about the changes, which resulted in slowing the pacing for 5th grade. This allowed students to gain a solid conceptual foundation in mathematics. Teachers were encouraged to instruct the concepts at a deeper level.
- October 8, 2018: Teachers participated in professional development about the implementation of 5th grade TEKS in the 2018-2019 school year.
- November 2, 2018: Parents of advanced 5th grade students received a Skyward message from their principal informing them of the changes.
- January 10, 2019: Counselors received information regarding the changes and the course sequencing, and the Math FAQ was distributed.
- Spring 2019: Information in the course selection handbook for registration was distributed to all students/parents for registration for 2019-2020.

Classroom Implementation:

- Teachers were encouraged to differentiate beyond the district grade-level curriculum that is aligned with the TEKS; however, they were expected to not teach other grade levels.
- Teachers were expected to follow the curriculum changes; however, in this first year some teachers did not adjust alignment and pacing. Therefore, some students may have been taught many of the 6th grade TEKS in 5th grade. The district did not expect or recommend this. Next year, teachers and principals will make adjustments accordingly.
- All students on the advanced math pathway will take Algebra 1 in 8th grade.

Credit by Exam:

- Texas law requires advancement based on Credit by Exam (CBE). If students score 80% or above on the CBE, they are advanced to the next grade level or course. The district determines and publishes CBE dates prior to the beginning of the school year.
- This year, some 5th graders have been encouraged to take the CBE to place out of 6th grade math because their teacher continued instruction using the old math sequence. If these students score 80% or higher, they will receive differentiated instruction during this transition time, staying on schedule to take Algebra 1 in 8th grade.
- Students whose teachers followed the curriculum changes and students who took but did not earn an 80% on the CBE will stay on the advanced math pathway, also taking Algebra 1 in 8th grade.
- Occasionally, a few students will take credit by exam and accelerate to take Geometry in 8th grade. This has always been an option.

Pearland ISD Mathematics Middle School Course Sequencing Highly Gifted Pathway 2019-2020

The chart below indicates the highly gifted pathway for Grades 5 through 12. Students must meet district criteria for enrollment in Highly Gifted Math 5/6 course sequence. This initial course for Highly Gifted Math will only be available to students entering 5th grade at Sablatura in the fall of 2019.

Mathematics Highly Gifted Pathways for Grades 5 - 12	
Highly Gifted Math Learner	
Grade 5	5th Grade Highly Gifted Math 5th TEKS 6th TEKS
Grade 6	6th Grade Highly Gifted Math 7th TEKS 8th TEKS
Grade 7	7th Grade Highly Gifted Math Algebra TEKS (PAP) Algebra EOC
Grade 8	8th Grade Highly Gifted Math Geometry TEKS (PAP)
Grade 9	PAP Algebra 2 Algebra 2 TEKS (PAP)
Grade 10	PAP Pre-Calculus Pre-Calculus TEKS (PAP)
Grade 11 - 12	STEM Pathway/Math Course Options New Courses Under Consideration

Proposed Math Options for Middle School/Junior High

Students must meet district criteria for enrollment in Highly Gifted Math 5/6 course sequences. This initial course for Highly Gifted Math will only be available to students entering 5th grade at Sablatura in the fall of 2019.

District Test Dates (Students need only attend one testing session):

- Monday, July 22, 2019
- Monday, August 5, 2019
- Wednesday, August 7, 2019

District Make-up Test Date: Monday, August 12, 2019

Students must meet all criteria for entering and remaining in **Highly Gifted Math**:

- **District Tests**

- All students must score at the Mastery level on the 2019 4th grade Math STAAR test and meet two of the following criteria:
 - Score 98% or higher on a nationally normed math portion of an achievement test for 5th grade skills, such as the California Achievement Test, Iowa Test of Basic Skills, or Stanford Achievement Test.
 - Score a Standard Age Score in Quantitative Reasoning of 145 or above on a nationally normed test such as the Stanford-Binet, WISC-V, or Cognitive Abilities Test.
 - Score 90% on the district creative thinking performance task.
 - Score 80% or higher on the district 5th grade problem solving and process test for Highly Gifted:
 - Students must solve the problem for accuracy.
 - Students must clearly articulate through writing an economic process by which they derived a correct solution.

- **District Test Information**

- Students must register for the earliest possible test date.
 - Registration information and form will be posted on the Advanced Academics webpage after June 12, 2019.
 - Registration information and form will also be posted on the Curriculum webpage.
- Students will need to attend only one testing session.
- There is no cost for the test.
- Each testing session is 4 ½ hours.
- Test dates/times:
 - Monday, July 22, 2019 @ 12:30pm-5:00pm
 - Wednesday, August 5, 2019 @ 8:00am-1:30pm
 - Wednesday, August 7, 2019 @ 12:30pm-5:00pm

- Students must maintain an average of 85 or higher in the Highly Gifted Math course.
- Students with a report card grade of 84 or lower will be on probation for one reporting period, during which time an intervention plan will be put in place. If the student does not have a grade of 85 or higher on the report card at the end of the probation period, the student will be removed from the program. Students who qualify for the Highly Gifted (HG) Math course sequence and are entering 5th grade at the GT Academy in fall of 2019 will complete all of 5th and 6th grade TEKS in 5th grade. Students must requalify each year for continuation in the HG Math program.

The Highly Gifted Math course is fast paced, rigorous, above grade level, and prepares students for AP classes and post-high school education/work. Academic expectations include intellectual and emotional maturity, mastery level on STAAR or EOC (End of Course exam) each year, strong work ethic, excellent time management skills, and work outside of class.