



## SUSD Middle School Math – Grades 6, 7, and 8

### Frequently Asked Questions

#### Student Readiness Indicators and Math Placement at the Middle Level

1. My student is performing very well at grade level standards. Why is s/he not recommended to “accelerate” (skip a level) next year if s/he is “highly proficient” at current standards and earnings A’s in math this year?

Research continues to show that students are more successful in all mathematics courses if they have a solid understanding of the standards in all math class prerequisites. Thus, decisions about recommending “acceleration” in math courses at the middle level are made very thoughtfully and in the best interest of students.

Math progresses on two levels. Based on state standards, there is a progression of skills from one grade level to the next, and there is a progression on a conceptual level as well. Students that are performing well at grade level demonstrate a solid foundation of the skills and thinking required of the standards of the course. The next levels of conceptual understanding depend on cognitive maturity. Abstract thought is a function of brain development and maturation, not intelligence. This maturity develops at different times for students throughout adolescence. Asking high performing students to delve deeply into concepts that their brains may not be ready to perform can lead to temporary achievement based on formulaic approaches to problem solving and memorization, but it often does not provide students with the solid foundation that they will need to be successful in higher level and more demanding courses. Using student readiness indicators to properly place students each year ensures that students are cognitively ready for the standards and thinking expected in each course – providing students with a stronger foundation for their future mathematical experiences.

2. What are the indicators SUSD is using to determine the best math courses for students to ensure success at the middle level?

A variety of factors are considered when determining placement including: student’s scores on an aptitude test to show readiness for acceleration, teacher’s evaluation of student’s work habits (based on a District rubric), and student’s performance on AzMERIT tests and SUSD post-tests. Together, these indicators are totaled in a matrix, and combined scores within the matrix are used to recommend the most appropriate math course for each student. The indicators are weighted in the matrix as follows:

Glencoe Aptitude Test Results (Number Correct) <b>50%</b>	Teacher’s Evaluation of Student’s Work Habits <b>10%</b>	SUSD Math Post-test <b>20%</b>	Previous Year’s AzMERIT Results <b>20%</b>
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3. Can my student retake the placement test?

No. This test is designed to be diagnostic, showing students' readiness for acceleration, and is not intended for mastery learning.

4. Why does SUSD use the universal screening at the end of 5<sup>th</sup> grade to identify students that may be ready for acceleration in math at the middle level?

The Arizona College and Career Ready Standards (ACCRS) in mathematics contain a number of foundational standards necessary for students to master at grades K-5. Failure to master these standards is likely to seriously impede students' progression in math. Math standards after 5<sup>th</sup> grade are more easily supported by related standards. Thus, SUSD begins identifying students who may be ready for acceleration at the end of 5<sup>th</sup> grade to ensure there are no gaps in this foundational learning. Recognizing that middle level students progress and mature at their own pace, we assess students' readiness for acceleration annually at the end of grades 5, 6 and 7 to identify students who may benefit from acceleration at any time during their middle school years.

5. About how many students are recommended for acceleration in math in grades 5, 6 and 7 across SUSD?

Approximately 10% of SUSD students (per grade level) are identified as "ready" to grade accelerate each year.

6. What *is* the math course sequence in SUSD at the middle level?

Please find the "MS Math Trajectory" in the SUSD Information Backpack published online at: <https://concrete.susd.org>

7. My student has been recommended to "skip" a level. I've been reading a lot about Academic Standards (including in the Arizona College and Career Ready Standards) and I'm concerned my child will miss important information if they indeed do "skip" a level of math. How valid is this concern? Should I contact my principal and tell him/her I do not want my son/daughter to be accelerated?

With the higher expectations and deeper levels of learning engrained in the Arizona College and Career Ready Standards, this is a valid concern. In response, SUSD has developed mini units intended to allow students the opportunity to be introduced to concepts they may have missed when grade accelerating. SUSD teachers determine the best way to expose their students to these units, either individually or as a whole class supplement for all students.

8. My son/daughter has consistently been told he/she is gifted or performing at very high levels in math. He/she has been recommended to be accelerated in math at the middle level, next year. Can I request that my son or daughter take additional tests to see if he/she can double skip and accelerate past/through TWO courses next year?

Given the rigor expected in the Arizona College and Career Ready Standards for mathematics, we recommend that students showing a readiness to accelerate only "skip" one grade level in

any given year. Placement into math classes at the middle level is the consequence of multiple criteria, based upon student readiness demonstrated through quantitative and qualitative measures. Each spring, 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade middle school students are administered a diagnostic/placement test. If students demonstrate readiness to accelerate again the following year, students will be recommended to grade accelerate again at that time, as determined by the math placement process.

9. My child is doing great in math. I understand that he/she is demonstrating a solid readiness for the next math course in the middle level math sequence in SUSD. However, I've heard that my son/daughter needs to complete Calculus in high school in order to be accepted by reputable colleges and universities, and I'm concerned my child won't get that far in high school math. Is this true?

According to Marilyn Carlson, ASU Mathematic Faculty member, the minimal mathematics requirement for universities is not Calculus. Most universities require that incoming freshman students take a mathematics placement exam after being admitted, and universities use those scores to determine what course the student will take during her/his freshman year. Most universities, including Ivy League schools, have courses in Precalculus.

10. My son/daughter LOVES math and is performing well at grade level standards but has not been recommended to accelerate/skip a math course at the middle level. If my son/daughter would like to take more math and complete Calculus while an SUSD high school student, what alternative routes or steps can he/she complete to be allowed this opportunity?

SUSD is fully committed to ensuring every student is allowed opportunities to complete high levels of upper level math in high school. We have opened up a number of trajectories within the high school framework to allow students to progress outside of the typical 4-year path. These include allowing students to:

1. Double up and take Geometry and Algebra II simultaneously (in brick and mortar or eLearning settings)
  2. Take the next level of math during summer school at any time after completing 8<sup>th</sup> grade (in either traditional or eLearning learning platforms)
  3. Enroll in e-Learning classes to move more quickly through coursework
- Interested students should work with their high school counselor to discuss the best opportunities for them.

11. How will SUSD parents be informed of their student's scores used in the matrices process?

Parents will receive a letter generated from the SUSD District Office in June or July, noting students' placement in math course the following year. Information about the process used to recommend placement is provided in this FAQ and in the SUSD Digital Backpack published online at <https://concrete.susd.org>

12. Can I request to have my son/daughter skip a level of math at the middle level, even if their readiness scores do not indicate they are ready to do so?

We have taken great strides to ensure students are appropriately placed and challenged to ensure success in math courses at the middle level. SUSD has an alternate policy in place for

students who do not indicate readiness through the diagnostic/matrix process. If an SUSD teacher identifies a student who is demonstrating a significant aptitude and readiness for acceleration far beyond his/her peer group, and the teacher determines he/she is unable to meet the needs of this student through differentiation of instruction, that teacher can recommend this student be considered for acceleration through the Single Subject Acceleration process. This formal process includes meetings with parents, the student's math teacher and site administrators to discuss targeted differentiation and student's scores on the Iowa Acceleration Scale. If you have questions about this process, please contact your site administrator.

13. What resources are available in SUSD if my student is struggling in math at the middle level?

The most effective resource at the middle level is your child's math teacher. SUSD teachers are trained in formative assessment and differentiation. We have Board-adopted curricular resource that include resources intended for remediation or intervention. The District also offers data-based, individualized computer programs for intensive remediation. A variety of tutoring services are provided at different middle schools, as well. Contact your child's teacher or site administrator for more information.

14. We are transferring into the SUSD school district, and my son/daughter has been previously "accelerated" in another district. Can we assume that our son/daughter will be automatically ready for the next course in sequence in SUSD?

The standards taught, curriculum materials used, and the names and sequence of math courses at the middle level vary greatly between school districts (and between states). Because of this variation, it is important that SUSD determines the incoming student's mastery of learning and readiness for course work within our course sequence, based on AZ State Standards (which include the Arizona College and Career Ready Standards). For this reason, we use the readiness indicators identified in the matrix process to identify the proper placement in courses at the middle level to ensure that each student will be challenged appropriately.

15. What *is* the math course sequence in SUSD at the high school level?

Please refer to the High School Planning Guide (available on the District website) to see the SUSD High School Math Course Sequence.

Note: SUSD students who take Algebra I in 8th grade can elect to earn HS credit for this course. Thus, all regulations established for earning high school credit must be met. For more information, check out the SUSD Information Backpack published online at <https://concrete.susd.org>

16. Where can I go to learn more about the ACCRS (Arizona College and Career Ready Standards) and the change in expectations in what students are expected to know and be able to do in math? What resources/books are recommended for parents or teachers to learn more about how students are expected to make meaning with math as a result of the instructional shifts with the ACCRS?

The Arizona Department of Education ([www.azed.gov](http://www.azed.gov)) is an excellent resource for the standards, expectations, and assessment of the ACCRS.

