SOUTHERN LEHIGH SCHOOL DISTRICT

Math Placement Information, Acceleration and the Mathematics Pathways

SLSD's Mathematics Pathway

- The Southern Lehigh School District strives to offer a rigorous mathematics curriculum suited to meet the needs of all students. The "Mathematics Pathway" shows the flexible ways in which students will progress to Algebra 1.
- The Pathway is a developmentally sound approach to the introduction of mathematical concepts. It aims to add depth of knowledge at individually appropriate times so that students may successfully progress through upper level math coursework.
- The district has created screening tools to assist in this process. End of year/end of course assessments will be used to accurately determine the concept retention and ability level of students so that acceleration options are presented at the most appropriate times.

  - ☑ 5th Grade - Optional <u>end of year</u> screening will be available to students in May to determine potential readiness for a full year course in **Pre-Algebra**.
  - ☑ 6th Grade – Students in the full year Pre-Algebra class will be screened at the <u>end of the course</u> to determine readiness for full year **Algebra 1** at the Middle School.

5th Grade Accelerated Math Placement Process

- 5th graders will be invited to take an acceleration placement test in May.
- The acceleration placement test assesses student understanding of the concepts taught in the Southern Lehigh mathematics curriculum.
- Students showing advanced mastery of mathematics concepts by scoring at the district determined benchmark will have the option to enroll in a one year Pre-Algebra class in 6th grade. This course is designed to be delivered at an accelerated pace and may lead to potential placement in Algebra 1 in 7th grade.
  - NOTE: Placement into one year Pre-Algebra is not based on PSSA performance or report card grades, both of which reflect on-level math understanding only. To be included in the accelerated class, students must demonstrate that they have the higher level prerequisite skills needed to handle Pre-Algebra delivered in a one year format.
- Students not accelerating will be enrolled in two year course sequence that begins with **Pre-Algebra A** in 6th grade followed by **Pre-Algebra B** in 7th grade. The design and intent of the two year course is to give more time to preparation of students for Algebra 1 and the Keystone exam, which is a graduation requirement in the state of Pennsylvania.

Screening for Algebra 1

- Students enrolled in the one year Pre-Algebra course as 6th graders will take an end of course assessment to determine readiness for Algebra 1. End of course testing will result in student placement into either…
  - the one year Algebra 1 course or
  - the two year Algebra 1A and Algebra 1B course sequence.

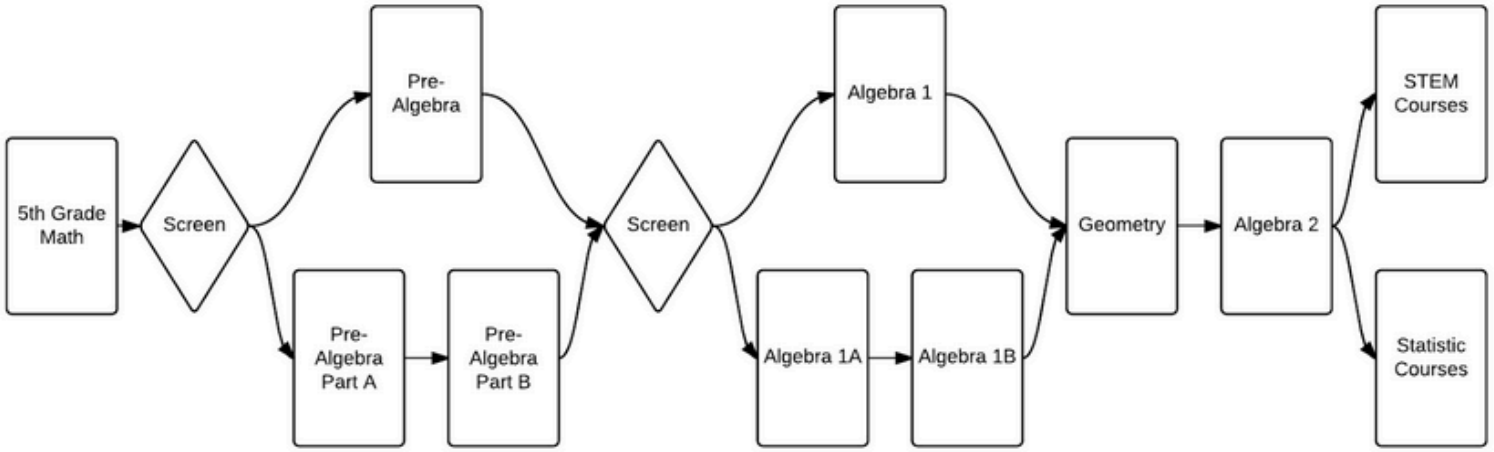
  This assessment will ensure that all students have the time needed to learn and understand the mathematical content associated with Algebra 1 in preparation for the Keystone Algebra 1 Exam.

- Students enrolled in the two year Pre-Algebra A/Pre-Algebra B course sequence, will take an end of course assessment at the conclusion of Pre-Algebra B in 7th grade to determine readiness of Algebra 1. Depending upon readiness, students will be placed in either…
  - the one year Algebra 1 course in 8th grade or
  - the two year Algebra 1A/Algebra 1B course sequence in 8th and 9th grades.

- Algebra 1 and Algebra 1A/Algebra 1B are Middle School/High School courses. Final placement decisions rest with the secondary schools.

Please view the mathematics pathways graphics on the next two pages to see the possible progression of students through the district's mathematics courses.

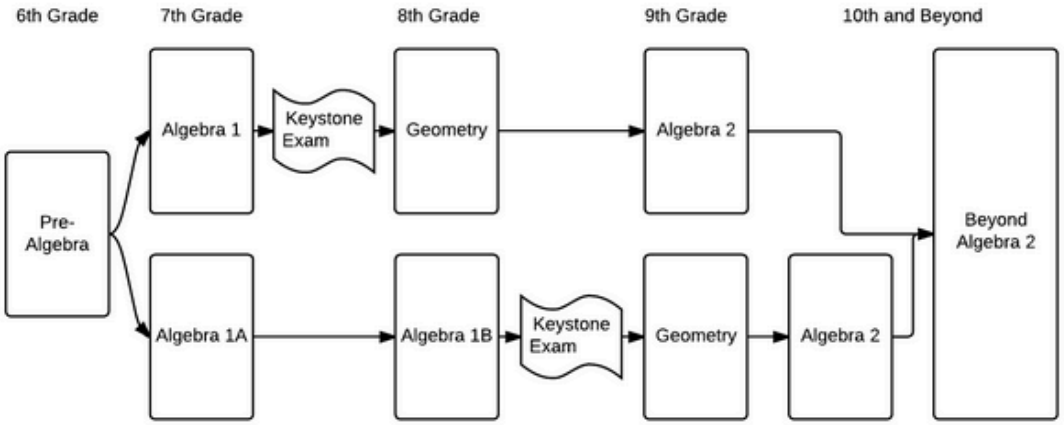
Mathematics "Pathway"

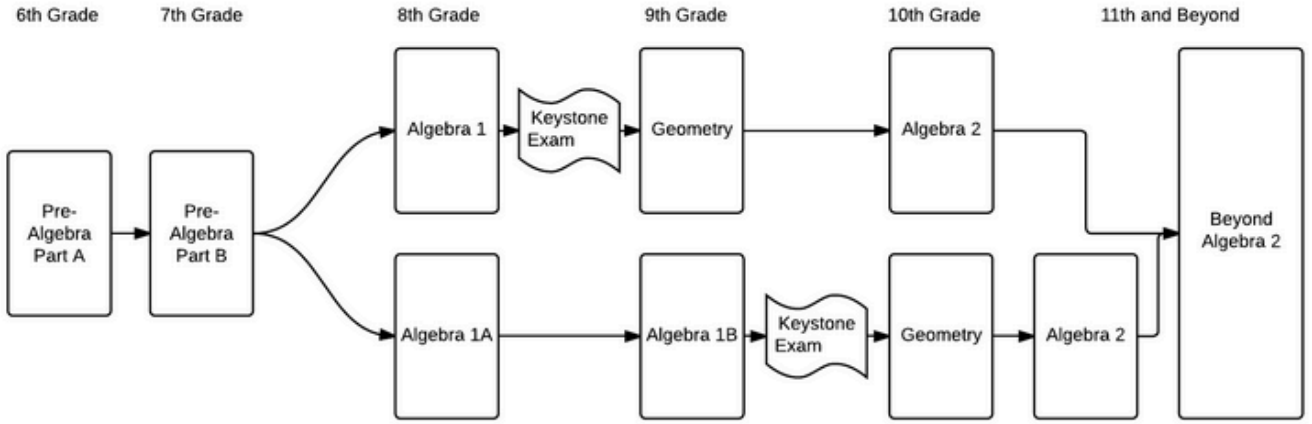


**If a student fails Pre-Algebra or is deemed to be inappropriately placed in Pre-Algebra, will be switched to Pre-Alg A during the year or in Pre-Alg B the following year.

***Likewise, a student who fails Algebra 1 or is deemed to be inappropriately placed in Algebra 1, will be placed in Algebra 1A or Algebra 1B the following year. A student can be switched out of Alg 1 into Alg 1A during the year.

Individual "Pathways" for students





Should My 5th Grade Child Take Accelerated Test?

- ☑ Students who excel in mathematics and consistently earn high 'A' grades (95% or higher) in math coursework are appropriate candidates for testing. Realize that performing 'A' level work in on-level math class does not indicate ability to accelerate to Pre-Algebra.
- ☑ Math precocious students – If your child earns high A's in their on-level math class and regularly solves mathematical problems, enjoys, and seeks out mathematics puzzles and websites, he/she may be an appropriate candidate for accelerated math testing.

Remember the Mathematics Pathway:

- Acceleration means placement in the one year Pre-Algebra course.
- Students not accelerating will be enrolled in Pre-Algebra Part A in 6th grade and Pre-Algebra Part B in 7th grade. The intent of these courses is to provide more time for preparation of students for Algebra 1.

Preparing Students for 5th Grade Accelerated Math Placement Testing

- 5th grade students do not have to participate in accelerated math testing.
- Students are not expected to prepare for the accelerated math placement test.
- 5th grade teachers do not prepare students for the accelerated math test. 5th grade students are instructed in the on-level curriculum. Teachers differentiate instruction providing extensions and remediation as appropriate.
- The results of the accelerated placement test have no bearing on report card grades.
- "Cramming" for the accelerated placement test in effort to achieve a minimum benchmark score may mask inconsistent mathematical understandings, and can lead to an incorrect math placement.
- The accelerated placement test is a secure district document. Because select test items may appear annually, the test is not available for review prior to or after testing.

Teaching Your Child Beyond the Curriculum

Parents wishing to take the time to teach their children beyond the district curriculum and current grade level may find these resources helpful:

1. Reference the math topics appearing in the district's curriculum found at www.slsd.org, academics, curriculum.
2. Reference teacher websites such as Mrs. Hines, Mr. Deutsch, Mrs. Hubbs & Mr. Bleiler.
3. Practice 6th Grade Skills using Glencoe Mathematics (grade 6) http://www.glencoe.com/sec/math/studytools/mac1chaprev.shtml (this is a sampling of 6th grade topic chapter tests) http://www.glencoe.com/sec/math/studytools/mac1lblr.shtml (these are self check quizzes)
4. ALEKS.com – A web-based learning tool that has multiple mathematics level courses. This tool uses adaptive questioning to quickly learn what students know and don't know and then instructs students on topics they are ready to learn (minimal individual subscription cost).
5. **Kahn Academy** – an excellent video tutorial instructional resource.
6. **Other web-based** learning math practice games your child enjoys and/or resources such as **Math.com, kidinfo.com, xpmath.com, sumdog.com** (many links appear on our teacher and district website)

Math Textbooks Currently Used in Grades 4-8

- 4th & 5th Grades
  - Envisions Math – Access the textbook at www.pearsonsuccessnet.com (students may login)
- 6th, 7th and Pre Algebra (8th)
  - Holt McDougal Mathematics Grade 6 Common Core edition 2012
  - Holt McDougal Mathematics Grade 7 Common Core edition 2012
  - Pre Algebra, Holt McDougal 2012
    - http://my.hrw.com (students may login)

The Keystone Exams

- These are state mandated end-of-course proficiency exams.
- Beginning with the class of 2019, Keystone exam scores will be used to determine graduation eligibility.
- Keystone exams currently exist for the following subjects:
  - Algebra I, Biology, and Literature
- Students will take the Keystone exam at the end of the year in which they complete the Algebra 1 course regardless of grade. Failure on the Keystone exam will result in either the repeat of the Algebra 1 course or remediation, both in preparation for retaking the exam.

A word about the Common Core Standards and the PA Core Standards

- The Common Core State Standards initiative is a state-led effort to provide a clear and consistent framework to prepare students for college and the workforce.
- PA adopted the CCSS. Pennsylvania's standards are referred to as the PA Core Standards.
- Read about the PA Core Standards in Mathematics PreK-12 at http://www.pdesas.org/Standard/PACore.

The Common Core Standards and the PA Core Standards Continued…

At focus for the CCSS initiative is to reset the expectations for all US students. The end goal of this initiative is to make all students **College and Career Ready.** Graduation from HS is not considered the end goal.

- Students who are college and career ready…
- Demonstrate independence.
- Build strong content knowledge.
- Respond to the varying demands of evidence, task, purpose and discipline.
- Comprehend as well as critique.
- Value evidence.
- Use technology and digital medial strategically and capably.
- Come to understand other perspectives and cultures.

The 8 Standards for Mathematical Practice
PA Core Standards

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.

The End