

Kentwood Public Schools Secondary Math Sequence

Michigan’s Department of Education recently developed a statewide curriculum in compliance with the national No Child Left Behind act. For mathematics, that translates into *Grade Level Content Expectations* for middle school and *High School Content Expectations* for high school. (Both documents are available at our district Instructional Services office or on the Michigan Department of Education’s website.)

Middle school students are expected to learn topics such as:

- operations with fractions, decimals, percents, integers, exponents, and irrational numbers
- writing and solving algebraic equations
- recognizing linear, quadratic, exponential, proportional, and inversely proportional functions
- finding area, perimeter, volume, and surface area of two- and three-dimensional objects
- performing geometric transformations and constructions
- writing proofs about similar triangles, the Pythagorean Theorem, etc.
- computing probabilities and distinguishing between dependent and independent events
- creating statistical graphs and plots and interpreting data

It is expected that high school students pass Algebra 1, Geometry, and Algebra 2, as well as an additional math credit their senior year. Without earning these credits, a student cannot graduate. The expectations for Algebra 1 have been raised to include topics like imaginary numbers and transformations of functions. Algebra 2 topics now include trigonometry and statistics.

In response, Kentwood Public Schools offers the above required courses as well as a number of math electives (including Pre-Calculus, Advanced Placement Calculus, Advanced Placement Statistics, Math of Sports, Math of Games, Math and the FBI, Math of Graphic Art, etc.). Some students will enroll in Algebra 1 their 9th grade year (see Sample A below). Other students may qualify to enroll in Algebra 1 during middle school (Samples B and C). To qualify to enroll in Algebra 1 during middle school, a student must receive their teacher’s recommendation, earn Level 1 on the math MEAP test, earn an acceptable score on the Iowa Algebra Aptitude Test (administered in April), earn high grades in their middle school math class, and have parent approval.

If a student takes Algebra 1 or Geometry in middle school, the district is required by state law to give the student high school credit, and the grade earned by the student will be included in their high school grade point average and will appear on their high school transcript.

	Sample A	Sample B	Sample C
6 th Grade	Math 6	Math 6	Math 6
7 th Grade	Math 7	Math 7	Algebra 1*
8 th Grade	Math 8	Algebra 1*	Geometry*
9 th Grade	Algebra 1*	Geometry*	Algebra 2*
10 th Grade	Geometry*	Algebra 2*	Pre-Calculus or other elective
11 th Grade	Algebra 2*	Pre-Calculus or other elective	AP Calculus, AP Statistics or other elective
12 th Grade	Pre-Calculus or other math-related course*†	AP Calculus, AP Statistics or other math-related course*†	AP Calculus, AP Statistics or other math-related course*†

*Required for graduation

†See the Course Description Book to find a list of math-related courses that qualify for the additional math requirement.