Fulton County Schools
Where Students Come First

Georgia's K-12 Mathematics Standards Curriculum Map

2026 – 2027

GEOMETRY: CONCEPTS AND CONNECTIONS

FCS GEOMETRY: CONCEPTS AND CONNECTIONS CURRICULUM MAP

Georgia's Geometry Mathematics Standards

Semester 1					Semester 2				
Unit 1	**Unit 2**	**Unit 3A**	**Unit 3B**	**Unit 4**	**Unit 5**	**Unit 6**	**Unit 7**	**Unit 8**	**Unit 9**
Modeling with Equations and Measurement	Exploring Polynomial Expressions through Geometry	Geometric Foundations	Exploring Quadrilaterals	Exploring Congruence	Investigating Similarity	Right Triangle Trigonometry and the Unit Circle	Making Sense of Circles	Investigating Probability and Statistics	Advanced Algebra Preview
13 Days	**14 Days**	**23 Days**	**15 Days**	**18 Days**	**15 Days**	**23 Days**	**24 Days**	**20 Days**	**5 Days**
Unit Dates 8/5/2026 - 8/21/2026	**Unit Dates** 8/24/2026 - 9/11/2026	**Unit Dates** 9/14/2026 - 10/22/2026	**Unit Dates** 10/23/2026 - 11/13/2026	**Unit Dates** 11/16/2026 - 12/16/2026	**Unit Dates** 1/5/2027 - 1/26/2027	**Unit Dates** 1/27/2027 – 3/5/2027	**Unit Dates** 3/8/2027 – 4/16/2027	**Unit Dates** 4/19/2027 – 5/14/2027	**Unit Dates** 5/17/2027 – 5/21/2027
Learning Expectations G.GSR.9.1 G.GSR.9.2 G.GSR.9.3	**Learning Expectations** G.PAR.2.1 G.PAR.2.2 G.PAR.2.3	**Learning Expectations** G.GSR.4.1 G.GSR.4.3 G.GSR.4.4 G.GSR.4.5	**Learning Expectations** G.GSR.4.2	**Learning Expectations** G.GSR.3.1 G.GSR.3.2 G.GSR.3.3 G.GSR.3.4	**Learning Expectations** G.GSR.5.1 G.GSR.5.2 G.GSR.5.3 G.GSR.5.4 G.GSR.4.5	**Learning Expectations** G.GSR.6.1 G.GSR.6.2 G.GSR.6.3 G.GSR.7.2 G.GSR.7.3	**Learning Expectations** G.GSR.8.1 G.GSR.8.2 G.GSR.8.3 G.GSR.7.1	**Learning Expectations** G.PR.10.1 G.PR.10.2 G.PR.10.3 G.PR.10.4 G.PR.10.5 G.PR.10.6 G.PR.10.7 G.PR.10.8 G.DSR.11.1 G.DSR.11.2	**Learning Expectations** AA.FGR.5.4 AA.FGR.5.10
G.MM.1-4 G.MP.1-8	**G.MM.1-4 G.MP.1-8**	**G.MM.1-4 G.MP.1-8**	**G.MP.1-8 G.MM.1-4**	**G.MM.1-4 G.MP.1-8**	**G.MM.1-4 G.MP.1-8**	**G.MM.1-4 G.MP.1-8**	**G.MM.1-4 G.MP.1-8**	**G.MM.1-4 G.MP.1-8**	**G.MM.1-4 G.MP.1-8**
The Framework for Statistical Reasoning, Mathematical Modeling Framework, and the K-12 Mathematical Practices should be taught throughout the units.									

Unit 1: Modeling with Equations and Measurement
13 Days

Unit Dates: 8/6/2026 - 8/21/2026
G.GSR.9: Develop informal arguments for geometric formulas using dissection arguments, limit arguments, and Cavalieri's principle; solve realistic problems involving volume; explore and visualize relationships between two-dimensional and three-dimensional objects to model and explain real-life phenomena. **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**
G.GSR.9.1: Use volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems, including right and oblique solids. **G.GSR.9.2:** Use geometric shapes, their measures, and their properties to describe objects and approximate volumes. **G.GSR.9.3:** Apply concepts of density based on area and volume in modeling situations.

Unit 2: Exploring Polynomial Expressions through Geometry
14 Days **Unit Dates**: 8/24/2026 - 9/11/2026
G.PAR.2: Interpret the structure of and perform operations with polynomials within a geometric framework. **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**
G.PAR.2.1: Interpret polynomial expressions of varying degrees that represent a quantity in terms of its given geometric framework. **G.PAR.2.2:** Perform operations with polynomials and prove that polynomials form a system analogous to the integers in that they are closed under these operations. **G.PAR.2.3:** Using algebraic reasoning, add, subtract, and multiply single variable polynomials.

Unit 3A: Geometric Foundations
23 Days

Unit Dates: 9/14/2026 - 10/22/2026
G.GSR.4: Establish facts between angle relations and generate valid arguments to defend established facts. Prove theorems and solve geometric problems involving lines and angles to model and explain real-life phenomena. **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**
G.GSR.4.1: Use the undefined notions of point, line, line segment, plane, distance along a line segment, and distance around a circular arc to develop and use precise definitions and symbolic notations to prove theorems and solve geometric problems. **G.GSR.4.3:** Make formal geometric constructions with a variety of tools and methods. **G.GSR.4.4:** Prove and apply theorems about lines and angles to solve problems. **G.GSR.4.5:** Use geometric reasoning to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal.

Unit 3B: Exploring Quadrilaterals
15 Days **Unit Dates:** 10/23/2026 - 11/13/2026
G.GSR.4: Establish facts between angle relations and generate valid arguments to defend established facts. Prove theorems and solve geometric problems involving lines and angles to model and explain real-life phenomena. **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**
G.GSR.4.2: Classify quadrilaterals in the coordinate plane by proving simple geometric theorems algebraically.

Unit 4: Exploring Congruence
18 Days **Unit Dates:** 11/16/2026 - 12/16/2026

G.GSR.3: Experiment with transformations in the plane to develop precise definitions for translations, rotations, and reflections and use these to describe symmetries and congruence to model and explain real-life phenomena. **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**
G.GSR.3.1: Use geometric reasoning and symmetries of regular polygons to develop definitions of rotations, reflections, and translations. **G.GSR.3.2:** Verify experimentally the congruence properties of rotations, reflections, and translations: lines are taken to lines, and line segments to line segments of the same length; angles are taken to angles of the same measure; parallel lines are taken to parallel lines. **G.GSR.3.3:** Use geometric descriptions of rigid motions to draw the transformed figures and to predict the effect on a given figure. Describe a sequence of transformations from one figure to another and use transformation properties to determine congruence. **G.GSR.3.4:** Explain how the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions. Use congruency criteria for triangles to solve problems and to prove relationships in geometric figures.

Unit 5: Investigating Similarity
15 Days **Unit Dates:** 1/5/2027 - 1/26/2027
G.GSR.5: Describe dilations in terms of center and scale factor and use these terms to describe properties of dilations; use the precise definition of a dilation to describe similarity and establish the criterion for triangles to be similar; use these terms, definitions, and criterion to prove similarity, model, and explain real-life phenomena.

G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.	
G.GSR.5.1:	Verify experimentally the properties of dilations.
G.GSR.5.2:	Given two figures, use and apply the definition of similarity in terms of similarity transformations.
G.GSR.5.3:	Use the properties of similarity transformations to establish criterion for two triangles to be similar. Use similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
G.GSR.5.4:	Use geometric reasoning to establish facts about the angle-angle criterion for similarity of triangles.
G.GSR.4.5:	Construct formal proofs to justify and apply theorems about triangles.

Unit 6: Right Triangle Trigonometry and the Unit Circle
23 Days **Unit Dates:** 1/27/2027 - 3/5/2027
G.GSR.6: Examine side ratios of similar triangles; use the relationship between right triangles to develop an understanding of sine, cosine, and tangent to solve geometric problems and to model and explain real-life phenomena. **G.GSR.7: Explore the concept of a radian measure and special right triangles.** **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**

G.GSR.6.1:	Explain that, by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to the definitions of trigonometric ratios for acute angles.
G.GSR.6.2:	Explain and use the relationship between the sine and cosine of complementary angles.
G.GSR.6.3:	Use trigonometric ratios and the Pythagorean Theorem to solve for sides and angles of right triangles in applied problems.
G.GSR.7.2:	Explore and explain the relationship between radian measures and degree measures and convert fluently between degree and radian measures.
G.GSR.7.3:	Use special right triangles on the unit circle to determine the values of sine, cosine, and tangent for $30^\circ \frac{\pi}{6}$, $45^\circ \frac{\pi}{4}$, $60^\circ \frac{\pi}{6}$, angles measures. Use reflections of triangles to determine reference angles and identify coordinate values in all four quadrants of the coordinate plane.

Unit 7: Making Sense of Circles	
24 Days **Unit Dates:** 3/8/2027 – 4/16/2027	
G.GSR.8: Examine and apply theorems involving circles; describe and derive arc length and area of a sector; and model and explain real-life situations involving circles. **G.GSR.7: Explore the concept of a radian measure.** **G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.**	
G.GSR.8.1:	Identify and apply angle relationships formed by chords, tangents, secants, and radii with circles.
G.GSR.8.2:	Using similarity, derive the fact that the length of the arc (arc length) intercepted by an angle is proportional to the radius, derive the formula for the area of a sector. Solve mathematically applicable problems involving applications of arc length and area of sector.
G.GSR.8.3:	Write and graph the equation of circles in standard form.
G.GSR.7.1:	Explore and interpret a radian as the ratio of the arc length to the radius of a circle.

Unit 8: Investigating Probability and Statistics
20 Days **Unit Dates:** 4/19/2027 - 5/14/2027
G.PR.10: Solve problems involving the probability of compound events to make informed decisions; interpret expected value and measures of variability to analyze probability distributions. **G.DSR 11: Examine real-life situations presented in a two-way frequency table to calculate probabilities, to model categorical data, and to explain real-life phenomena.**

G.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.	
G.PR.10.1:	Describe categories of events as subsets of a sample space using unions, intersections, or complements of other events. Apply the Addition Rule conceptually, *P(A or B) = P(A) + P(B) – P(A and B),* and interpret the answers in context.
G.PR.10.2:	Apply and interpret the general Multiplication Rule conceptually to independent events of a sample space, $P(A\ and\ B) = P(A) \cdot P(B\|A) = P(B) \cdot P(A\|B)$ using contingency tables or tree diagrams.
G.PR.10.3:	Use conditional probability to interpret risk in terms of decision-making and investigate questions such as those involving false positives or false negatives from screening tests.
G.PR.10.4:	Define permutations and combinations and apply this understanding to compute probabilities of compound events and solve meaningful problems.
G.PR.10.5:	Interpret the probability distribution for a given random variable and interpret the expected value.
G.PR.10.6:	Develop a probability distribution for variables of interest using theoretical and empirical (observed) probabilities and calculate and interpret the expected value.
G.PR.10.7:	Calculate the expected value of a random variable and interpret it as the mean of a given probability distribution.
G.PR.10.8:	Compare the payoff values associated with the probability distribution for a random variable and make informed decisions based on expected value and measures of variability.
G.DSR.11.1:	Construct and summarize categorical data for two categories in two-way frequency tables.
G.DSR.11.2:	Use categorical data in two-way frequency tables to calculate and interpret probabilities within the given framework.

Unit 9: Advanced Algebra Preview Unit

5 Days

Unit Dates: 5/17/2027 - 5/21/2027

PREVIEW ADVANCED ALGEBRA STANDARDS

AA.FGR.5.4: Use the structure of an expression to factor quadratics.

AA.FGR.5.10: Use the structure of an expression to factor polynomials, including the sum of cubes, the difference of cubes, and higher-order polynomials that may be expressed as a quadratic within a quadratic.