Cobb County School District 2020-21

Honors Geometry Teaching & Learning Framework

Semester 1			Semester 2		
Unit 1 3 weeks	**Unit 2** 11 weeks	**Unit 3** 4 weeks	**Unit 4** 7 weeks	**Unit 5** 5 weeks	**Unit 6** 6 weeks
Transformations in the Coordinate Plane	**Similarity, Congruence & Proofs**	**Right Triangle Trigonometry**	**Circles & Volume**	**Geometric & Algebraic Connections**	**Applications of Probability** **Review & Extend**
MGSE9-12.G.CO.1 (Precise definitions) **MGSE9-12.G.CO.2** (Coordinate plane) **MGSE9-12.G.CO.3** (Figures with rotations & reflections upon itself) **MGSE9-12.G.CO.4** (Definitions of transformations) **MGSE9-12.G.CO.5** (Transforming figures)	**MGSE9-12.G.SRT.1-2** (Dilations & similarity) **MGSE9-12.G.SRT.3** (AA criterion) **MGSE9-12.G.SRT.4** (Prove theorems about triangles) **MGSE9-12.G.SRT.5** (Congruence & similarity) **MGSE9-12.G.CO.6-7** (Congruence & rigid motions) **MGSE9-12.G.CO.8** (Triangle congruence) **MGSE9-12.G.CO.9-11** (Prove geometric theorems) **MGSE9-12.G.CO.12** (Geometric constructions) **MGSE9-12.G.CO.13** (Construct regular polygons inscribed in a circle) **Cobb Honors Standards** Conditional Statements Special Quadrilaterals	**MGSE9-12.G.SRT.6** (Trigonometric ratios) **MGSE9-12.G.SRT.7** (Sine & cosine of complementary angles) **MGSE9-12.G.SRT.8** (Trigonometric ratios & Pythagorean Theorem) **Cobb Honors Standards** Elevation & Depression	**MGSE9-12.G.C.1-2** (Similar circles; radii, chords, tangents & secants with inscribed, central & circumscribed angles) **MGSE9-12.G.C.3-5** (Constructing inscribed & circumscribed circles; construct a tangent line; derive arc lengths) **MGSE9-12.G.GMD.1** (Informal arguments for geometric formulas) **MGSE9-12.G.GMD.2-4** (Cavalieri's principle; volume; cross-sections & rotations) **Cobb Honors Standards** Surface Area of a Sphere	**MGSE9-12.G.MG.1-3** (Describe objects; density; design problems) **MGSE9-12.G.GPE.1** (Derive the equation of a circle) **MGSE9-12.G.GPE.4** (Coordinates to prove simple geometric theorems) **MGSE9-12.G.GPE.5-7** (Prove the slope criteria; partition a line segment; compute perimeters using the distance formula) **Cobb Honors Standards** Loci	**MGSE9-12.S.CP.1-4** (Set theory; independent probability; conditional probability; two-way tables) **MGSE9-12.S.CP.5** (Recognize & explain conditional probability) **MGSE9-12.S.CP.6-7** (Probability of compound events) **Review: All standards by differentiating for student needs** **Extend:** **MGSE9-12.N.CN.1** (Complex numbers)

These units were written to build upon concepts from prior units, so later units contain tasks that depend upon the concepts addressed in earlier units.
All units will include the Mathematical Practices and indicate skills to maintain.

NOTE: Mathematical standards are interwoven and should be addressed throughout the year in as many different units and tasks as possible in order to stress the natural connections that exist among mathematical topics.

Grades 9-12 Key: Algebra Strand: SSE = Seeing Structure in Expressions, APR = Arithmetic with Polynomial and Rational Expressions, CED = Creating Equations, REI = Reasoning with Equations and Inequalities
Functions Strand: IF = Interpreting Functions, LE = Linear and Exponential Models, BF = Building Functions, TF = Trigonometric Functions
Geometry Strand: CO = Congruence, SRT = Similarity, Right Triangles, and Trigonometry, C = Circles, GPE = Expressing Geometric Properties with Equations, GMD = Geometric Measurement and Dimension, MG = Modeling with Geometry
Statistics and Probability Strand: ID = Interpreting Categorical and Quantitative Data, IC = Making Inferences and Justifying Conclusions, CP = Conditional Probability and the Rules of Probability, MD = Using Probability to Make Decisions