ML GEOMETRY SYLLABUS

1st Marking Period

Chapter 1: Basics of Geometry (Test 1.1- 1.3, 1.5 & 1.6)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
1.1	Points, Lines, and Planes	G-CO.A.1	Big Ideas Text Exercises 1.1 #1, 2, 3 – 19 odd, 25 – 43 odd, 50, 55, 65 - 72
1.2	Measuring and Constructing Segments **Note: No Constructions of Segments*	G-CO.A.1, G-CO.B.7, A-CED.A.1	Big Ideas Text Exercises 1.2 # 1, 2, 3 – 25 odd, 32, 34, 38 – 45 and Supplement Algebra Review based on student's need, for example, solving two-step linear equation, solving linear equations with variables on both sides, . . .
1.3	Use Midpoint and Distance Formulas	N-RN.A.3, G-GPE.B.7	Big Ideas Text Exercises 1.3 # 1, 2, 3 – 33 odd, 40, 42, 46 – 53 and Supplement Algebra Review based on student's need, for example, solving two-step linear equation, solving linear equations with variables on both sides, . . .
1.5	Measuring and Constructing Angles	G-CO.A.1; G-CO.B.7; G-CO.D.12	Big Ideas Text Exercises 1.5 # 1, 2, 3 – 27 odd, 52, 54, 58 – 65 and Supplement Algebra Review based on student's need, for example, solving two-step linear equation, solving linear equations with variables on both sides, . . .
1.6	Describing Pairs of Angles	G-CO.A.1, G-MG.A.1	Big Ideas Text Exercises 1.6 # 7, 9, 11-14, 15-19 odd, 27, 31, 46,1, 2, 3 – 25 odd, 46, 48, 52 – 59 and Supplement Algebra Review based on student's need, for example, solving two-step linear equation, solving linear equations with variables on both sides, . . .

Chapter 2: Reasoning and Proof (Test 2.1, 2.4-2.6)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
2.1	Conditional Statements **Note: Only do Conditional, Converse, and Biconditional statements.*	*G-CO.C.9; G-CO.C.10; G-CO.C.11*	Big Ideas Text Exercises 2.1 # 1, 2, 3 – 43 odd, 46, 58, 64 - 69
2.4	Algebraic Reasoning	*A-REI.A.1; G-CO.C.9; G-CO.C.10; G-CO.C.11*	Big Ideas Text Exercises 2.4 # 1, 2, 3 – 41 odd, 45, 46, 52 and Supplement Algebra Review based on student's need, for example, solving equations that require factoring
2.5	Proving Statements about Segments and Angles	*G-CO.A.1; G-CO.C.9; G-CO.C.10; G-CO.C.11*	Big Ideas Text Exercises 2.5 # 1 – 10, 17
2.6	Proving Geometric Relationships	*G-CO.C.9*	Big Ideas Text Exercises 2.6 # 1 – 18, 20

2nd Marking Period

Chapter 3: Parallel and Perpendicular Lines (Test 3.1-3.4)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
3.1	Pairs of Lines and Angles (Supplement Review slope, linear equations in the form y = mx + b)	G-CO.A.1; G-CO.C.9, G-CO.D.12	Big Ideas Text Exercised 3.1 # 1 – 18, 25 – 28
3.2	Parallel Lines and Transversals	A-CED.A.1, G-CO.C.9	Big Ideas Text Exercises 3.2 # 1 – 13, 17, 18 and Supplement Factoring Problem
3.3	Proofs with Parallel Lines	A-CED.A.1, G-CO.C.9	Big Ideas Text Exercises 3.3 # 1 – 8, 13 – 25, 27
3.4	Proofs with Perpendicular Lines	G-CO.C.9	Big Ideas Text Exercises 3.4 # 17 – 22, 25, 27

Section 3.5: Formative Assessment

3.5	Write and Graph Equations of Lines	A-CED.A.2, F-LE.A.2, F-IF.B.6, G-GPE.B.5, G-GPE.B.6, 8-SP.A.*3*	Big Ideas Text Exercises 3.5 # 3 – 24, 27 - 31 and Supplement with a review of writing, graphing, and interpreting linear equations

Chapter 5: Congruent Triangles (Test 5.1-5.7)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
5.1	Angles of Triangles	A-CED.A.1, G-CO.C.10, G-MG.A.1	Big Ideas Text Exercises 5.1 # 1, 2, 3–27 odd, 37, 46, 48, 54–57
5.2	Congruent Polygons	A-CED.A.1, G-CO.B.7	Big Ideas Text Exercises 5.2 # 1, 2, 3–17 odd, 22, 26–29
5.3	Prove Triangles Congruent by SAS	G-CO.B.8, G-MG.A.1	Big Ideas Text Exercises 5.3 # 1, 2, 3–15 odd, 19, 25, 26, 30, 32–35
5.4	Equilateral and Isosceles Triangles	A-CED.A.1 , G-CO.C.10, G-CO.D.13, G-MG.A.1	Big Ideas Text Exercises 5.4 # 1, 2, 3–19 odd, 22, 23, 38, 40
5.5	Prove Triangles Congruent by SSS	G-CO.B.8, G-MG.A.1 , G-MG.A.3	Big Ideas Text Exercises 5.5 # 1 – 15, 19, 20, 23
5.6	Proving Triangles Congruent by ASA and AAS	G-CO.B.8	Big Ideas Text Exercises 5.6 #3 – 6, 9 – 12, 15, 16, 26
5.7	Using Congruent Triangles	G-CO.B.8, G-SRT.B.5, G-MG.A.1	Big Ideas Text Exercises 5.7 #3 – 6, 17

3rd Marking Period

Chapter 4: Transformations (Test 4.1-4.3, 4.5)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
4.1	Translations	G-CO.A.2, G-CO.A.4, G-CO.A.5, G-CO.B.6	Big Ideas Exercises 4.1 # 3-25 odd 26, 27, 32
4.2	Reflections	G-CO.A.2, G-CO.A.3, G-CO.A.4, G-CO.A.5, G-CO.B.6, G-MG.A.3	Big Ideas Exercises 4.2 # 2-6, 7-19 odd, 20-25
4.3	Rotations	G-CO.A.2, G-CO.A.3, G-CO.A.4, G-CO.A.5, G-CO.B.6	Big Ideas Exercises 4.3 # 7-23 odd, 25, 26, 28, 35
4.5	Dilations	G-CO.A.2, G-SRT.A.1.a, G-SRT.A.1.b,	Big Ideas Exercises 4.5 # 3, 5, 15-21 odd, 25, 29, 31 - 35

Chapter 8: Similarity (Test 8.1-8.4)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
Ratios Supplement 6.1	Ratios and Proportions: Mc Dougal Littel Geometry Section 6.1	N-Q.A.1, A-CED.A.1	McDougal Little Geometry pg.360 #2-36, 42-46, 49-51, 57
8.1	Similar Polygons	A-CED.A.1 G-SRT.A.2, G-SRT.B.5, G-MG.A.3	Big Ideas Text Exercises 8.1 # 1-23 odd, 28-34, 36 - 42
8.2	Proving Triangle Similarity by AA	A-CED.A.1 G-SRT.A.3, G-SRT.B.5	Big Ideas Text Exercises 8.2, # 1-21 odd
8.3	Proving Triangle Similarity by SSS and SAS	A-CED.A.1 G-SRT.B.4, G-SRT.B.5, G-GPE.B.5, G-MG.A.1	Big Ideas Text Exercises 8.3 # 1 – 8, 13 – 16, 19
8.4	Proportionality Theorems	A-CED.A.1 G-SRT.B.4, G-SRT.B.5	Big Ideas Text Exercises 8.4 # 3 – 8, 13 – 24, 25, 26, 29, 34

Chapter 9: Right Triangles and Trigonometry (Test 9.1-9.6)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
9.1	The Pythagorean Theorem	G-SRT.B.4, G-SRT.C.8, N-RN.A.3	Big Ideas Exercises 9.1 # 3 - 6, 7 - 25 odd, 38 and Supplement with a review of rational numbers (include simplifying, sum and product of rational numbers and solving equations involving rational numbers)
9.3	Similar Right Triangles	N-RN.A.3, G-SRT.B.5	Big Ideas Text Exercises 9.3 # 3 - 10, 19 – 30, 31 - 35
9.4	The Tangent Ratio	G-SRT.C.6, G-SRT.C.8	Big Ideas Text Exercises 9.4 # 3 – 11 odd, 15, 16, 21 (provide diagrams for word problems)
9.5	The Sine and Cosine Ratios	G-SRT.C.6, G-SRT.C.7, G-SRT.C.8	Big Ideas Text Exercises 9.5 # 3 – 21 odd, 27, 28, 30, 34 (provide diagrams for word problems)
9.6	Solving Right Triangles	G-SRT.C.8, G-MG.A.1, G-MG.A.3	Big Ideas Text Exercises 9.6 # 7 – 19 odd, 21, 23, 24 (provide diagrams for word problems)

4th Marking Period

Chapter 7: Quadrilaterals and Other Polygons (Test 7.1, 7.2, 7.4 & 7.5)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
7.1	Angles of Polygons	A-CED.A.1 G-CO.C.11	Big Ideas Text Exercises 7.1, # 1-33 odd, 37-40, 50, 53-56
7.2	Properties of Parallelograms	A-CED.A.1, G-CO.C.11, G-SRT.B.5	Big Ideas Text Exercises 7.2 # 1-21 odd, 33, 34, 39, 43, 48-50
7.4	Properties of Special Parallelograms	A-CED.A.1, G-CO.C.11, G-SRT.B.5, G-MG.A.1, G-MG.A.3	Big Ideas Text Exercises 7.4 # 1-63 odd, 65-70, 75, 76, 84, 89-91
7.5	Properties of Trapezoids and Kites	A-CED.A.1, G-SRT.B.5, G-MG.A.1	Big Ideas Text Exercises 7.5 # 1-29 odd, 31-34, 41, 53, 54

Chapter 10: Properties of Circles (Test 10.1, 10.2, 10.4 & 10.5)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
10.1	Lines and Segments that Intersect Circles	G-CO.A.1, G-C.A.2, G-C.A.4	Big Ideas Text Exercises 10.1 # 1-35 odd, 39, 45, 49, 50
10.2	Finding Arc Measures	G-C.A.1, G-C.A.2	Big Ideas Text Exercises 10.2 # 1-29 odd, 31, 39-42
10.4	Inscribed Angles and Polygons	A-CED.A.1, G-CO.D.13, G-C.A.2, G-C.A.3	Big Ideas Text Exercises 10.4 # 1-17 odd, 19-21, 34, 43-46
10.5	Angle Relationships in Circles	A-CED.A.1, G-C.A.2	Big Ideas Text Exercises 10.5 # 1-23 odd, 34, 41-43

Chapters 10 & 11: Properties of Circles, Arc Length and Sectors (Test 10.3, 10.6, 11.1 & 11.2)

Section	Title	2023 NJSLS for Mathematics	Problems **Teachers must assign mixed review problems as part of homework assignments.*
10.3	Using Chords	A-CED.A.1, G-C.A.2, G-MG.A.3	Big Ideas Text Exercises 10.3 #1-17 odd, 26-28
10.6	Segment Relationships in Circles	G-C.A.2, G-MG.A.1	Big Ideas Text Exercises 10.6 # 1-15 odd, 27-30
11.1	Circumference and Arc Length	G-GMD.A.1, G-C.B.5, G-CO.A.1	Big Ideas Text Exercises 11.1 # 1-13 odd, 23, 24, 43, 44
11.2	Areas of Circles and Sectors	G-GMD.A.1, G-MG.A.2 , G-C.B.5	Big Ideas Text Exercises 11.2 # 1-23 odd, 26, 30-32, 42-45

Course Expectations and Skills

- Students are required to have proficiency in all topics for Algebra 1. Those who do not demonstrate proficiency will be required to seek additional help after school to close their achievement gap in order to be successful in this course.
- Students are required to take notes in Cornell Notes format and maintain those notes in a neat and organized notebook.
- Students are required to have a scientific calculator.
- Students are required to participate in both small and large group discussions and activities, as directed.
- Students are required to complete a project each marking period, including those which require the use of technology.

Text Book: *Geometry,* Big Ideas Math

Supplemental Materials: Geometry Practice Workbook
Dynamic Geometry Software
Geometer's Sketchpad
Kuta Infinite Geometry
McDougal Littell Geometry Resources

Assessment Information

Department of Mathematics – Geometry

Marking Periods 1 - 4	
Category	**Percentage**
Major	40%
Minor	30%
Project (MP 1 & 3) Benchmark (MP 2 & 4)	10%
Class Participation	5%
Homework	15%