Marking Period 1

Chapter 1 – Basics of Geometry (Test 1.1-1.6)

Section	Title	2023 NJSLS for Mathematics	Suggested 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 pg.8 #7-34, 47, 50, 55
2.3	Postulates and Diagrams	A-CED.A.1 G-CO.A.1, G-CO.C.9	Big Ideas Text pg.87 #5-23
1.2	Measuring and Constructing Segments *Note: No Constructions of Segments*	G-CO.A.1, G-CO.B.7,	Big Ideas Text pg.16 #9-19, 20-22, 26, 29 Teacher created worksheet using Kuta software or other supplemental material to supplement factoring problems.
1.3	Use Midpoint and Distance Formula	N-RN.A.3, G-GPE.B.7	Big Ideas Text pg.24 #7-10, 15-34, 37
1.4	Perimeter and Area in the Coordinate Plane	G-CO.A.1, G-GPE.B.7, G-MG.A.1	Big Ideas Text pg.34 #3-24, 35-36
1.5	Measuring and Construction Angles	G-CO.A.1, G-CO.B.7, G-CO.D.12	Big Ideas Text pg.43 #3-8, 21-30, 33-40, 42-46, 53-54 Teacher created worksheet using Kuta software or other supplemental material to supplement factoring problems.
1.6	Describing Pairs of Angles	G-CO.A.1, G-MG.A.1	Big Ideas Text pg.52 #3-22, 32-41, 46

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

Section	Title	2023 NJSLS for Mathematics	Suggested 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 pg.71 #1-2, 7-38
2.4	Algebraic Reasoning	A-REI.A.1, G-CO.C.9, G-CO.C.10, G-CO.C.11	Big Ideas Text pg.96 #5-20, 25-40
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 pg.103 #3-10, 13-15 Teacher created worksheet using Kuta software or other supplemental material for extra proof examples.
2.6	Proving Geometric Relationships	G-CO.C.9	Big Ideas Text pg.111 #3-16, 18, 19(as a 2 column), 20-24 Teacher created worksheet using Kuta software or other supplemental material for extra proof examples.

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

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
3.1	Pairs of Lines and Angles	G-CO.A.1, G-CO.C.9, G-CO.D.12	Big Ideas Text pg.129 #3-18, 23-31
3.2	Parallel Lines and Transversals	A-CED.A.1, G-CO.C.9	Big Ideas Text pg.135 #3-13, 14, 17, 21 Teacher created worksheet using Kuta software or other supplemental material for factoring examples and Parallel Line Proofs.
3.3	Proofs with Parallel Lines	A-CED.A.1, G-CO.C.9	Big Ideas Text pg.142 #3-8, 13-18, 21-25, 33-36
3.4	Proofs with Perpendicular Lines	G-CO.C.9	Big Ideas Text pg.153 #16-23, 26, 27

Marking Period 2

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	Big Ideas Text pg.160 #3-20

Chapter 5 – Congruent Triangles (Test: 5.1-5.7)

Section	Title	2023 NJSLS for Mathematics	**Suggested 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 pg.236 #3-6, 11-36, 49-52
5.2	Congruent Polygons	ACED.A.1, G-CO.B.7	Big Ideas Text pg.243 #1-14
5.3	Proving Triangle Congruence by SAS	G-CO.B.8, G-MG.A.1	Big Ideas Text pg.249 #9-20, 25 Teacher created worksheet using Kuta software or other supplemental material for extra proof examples.
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 pg.256 #3-16, 23-26 Teacher created worksheet using Kuta software or other supplemental material for extra proof examples.
5.5	Proving Triangle Congruence by SSS	G-CO.B.8, G-MG.A.1, G-MG.A.3	Big Ideas Text pg.266 #3-10, 13-16, 19-20 Teacher created worksheet using Kuta software or other supplemental material for extra proof examples.
5.6	Proving Triangle Congruence by ASA and AAS	G-CO.B.8	Big Ideas Text pg.274 #3-12, 15-20, 26 Teacher created worksheet using Kuta software or other supplemental material for extra proof examples.
5.7	Using Congruent Triangles	G-CO.B.8, G-SRT.B.5, G-MG.A.1	Big Ideas Text pg.281 #3-8 Teacher created worksheet using Kuta software or other supplemental material to supplement CPCTC proofs. Students should be able to prove triangles congruent, use CPCTC, and one extra step (midpoint or angle bisector).

Chapter 4 – Transformations (Test: 4.1-4.5)

Section	Title	2023 NJSLS for Mathematics	Suggested 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 Text pg.178 #3-24, 29-30
4.2	Reflections	G-CO.A.2, G-CO.A.3 G-CO.A.4, G-CO.A.5 G-CO.B.6	Big Ideas Text pg.186 #3-26
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 Text pg.194 #7-24, 28
4.4	Congruence and Transformations	G-CO.A.5, G-CO.B.6	Big Ideas Text pg.204 #3-6, 25-28 **The topics in this section should be incorporated throughout the chapter, a separate lesson is not needed.
4.5	Dilations	G-CO.A.2, G-SRT.A.1a, G-SRT.A.1b	Big Ideas Text pg.212 #3-6, 15-35, 51 **Dilations centered around points other than origin should be covered.

Chapter 8 – Similarity (Test: 8.1-8.4)

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
Ratios Supplement	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 pg.423 #3-24, 28-34, 37-42
8.2	Proving Triangles Similar by AA	A-CED.A.1, G-SRT.A.3, G-SRT.B.5	Big Ideas Text pg.431 #3-20
8.3	Proving Triangle Similarity by SSS and SAS	A-CED.A.1, G-GPE.B.5, G-SRT.B.4, G-SRT.B.5, G-MG.A.1	Big Ideas Text pg.441 #3-10, 13-16, 20-26
8.4	Proportionality Theorem	A-CED.A.1, G-GPE.B.6, G-SRT.B.4, G-SRT.B.5	Big Ideas Text pg.450 #3-8, 13-26, 29-30

Marking Period 3

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

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
9.1	The Pythagorean Theorem	N-RN.A.3, G-SRT.B.4, G-SRT.C.8	Big Ideas Text pg.468 #3-28, 31-34
9.2	Special Right Triangles	N-RN.A.3, G-SRT.C.8, G-MG-A.1	Big Ideas Text pg.475 #3-16
9.3	Similar Right Triangles	N-RN.A.3, G-SRT.B.5	Big Ideas Text pg.482 #5-34
9.4	The Tangent Ratio	G-SRT.C.6, G-SRT.C.8	Big Ideas Text pg.491 #3-16, 21, 25
9.5	The Sine and Cosine Ratios	G-SRT.C.6, G-SRT.C.7, G-SRT.C.8	Big Ideas Text pg.498 #3-22, 27-30
9.6	Solving Right Triangles	G-SRT.C.8, G-MG.A.1, G-MG.A.3	Big Ideas Text pg.505 #3-19, 21, 24

Chapter 7 – Quadrilaterals and Other Polygons (Test: 7.1-7.5)

Section	Title	2023 NJSLS for Mathematics	Suggested 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 pg.364 #3-34, 37-41, 45
7.2	Properties of Parallelograms	A-CED.A.1, G-CO.C.11, G-SRT.B.5	Big Ideas Text pg.372 #3-22, 31-33, 39, 43 Teacher created worksheet using Kuta software or other supplemental material for factoring problems.
7.3	Proving that a Quadrilateral is a Parallelogram	A-CED.A.1, G-CO.C.11, G-SRT.B.5, G-MG.A.1	Big Ideas Text pg.381 #3-23, 33-34 Teacher created worksheet using Kuta software or other supplemental material for factoring problems.
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 pg.393 #3-54, 61-63, 65-70
7.5	Properties of Trapezoids and Kites	A-CED.A.1, G-SRT.B.5, G-MG.A.1	Big Ideas Text pg.403 #7-12, 15-28

Chapter 10 – Circles (Test: 10.1-10.4)

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
10.1	Lines and Segments That Intersect Circles	G-C.A.2, G-C.A.4, G-CO.A.1	Big Ideas Text pg.534 #5-10, 15-34 Teacher created worksheet using Kuta software or other supplemental material for factoring problems.
10.2	Finding Arc Measures	G-C.A.1, G-C.A.2	Big Ideas Text pg.542 #3-24, 26-31
10.3	Using Chords	A-CED.A.1, G-C.A.2, G-MG.A.3	Big Ideas Text pg.549 #3-11, 13-17
10.4	Inscribed Angles and Polygons	A-CED.A.1, G-C.A.2, G-C.A.3, G-CO.D.13	Big Ideas Text pg.558 #3-17, 19-21

Marking Period 4

Chapter 10 – Circles (Test: 10.5 - 10.7)

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
10.5	Angle Relationships in Circles	A-CED.A.1, G-C.A.2	Big Ideas Text pg.566 #3-22, 25
10.6	Segment Relationships in Circles	G-C.A.2, G-MG.A.1	Big Ideas Text pg.573 #3-18
10.7	Circles in the Coordinate Plane	G-GPE.A.1, G-GPE.B.4	Big Ideas Text pg.579 #3-14, 19-22

Chapter 11 – Circumference, Area, and Volume (Test 11.1-11.3)

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
11.1	Circumference and Arc Length	G-C.B.5, G-CO.A.1, G-GMD.A.1	Big Ideas Text pg.598 #3-18, 23
11.2	Areas of Circles and Sectors	G-C.B.5, G-GMD.A.1, G-MG.A.2	Big Ideas Text pg.606 #3-10, 15-28, 30-32
11.3	Areas of Polygons	G-GMD.A.3	Big Ideas Text pg.614 #3-28

Chapter 11: Measuring Length and Area (Project: 11.4-11.8)

Section	Title	2023 NJSLS for Mathematics	Suggested Problems *Teachers must assign mixed review problems as part of homework assignments.*
11.4	Three-Dimensional Figures	G-GMD.B.4	Big Ideas Text p. 621-622 #1-27 odd, 37-39, project
11.5	Volumes of Prisms and Cylinders	G-GMD.A.1, G-GMD.A.2, G-GMD.A.3, G-MG.A.2, G-MG.A.3 (Formulas Given)	Big Ideas Text p. 631-634 #1-33 odd, 44 , 51, 55-57, project
11.6	Volumes of Pyramids	G-GMD.A.1, G-GMD.A.3, G-MG.A.1 (Formulas Given)	Big Ideas Text p. 639-640 #1-19 odd, 23, 26-29, project
11.7	Surface Area and Volumes of Cones	G-GMD.A.1, G-GMD.A.3 (Formulas Given)	Big Ideas Text p. 645-646 #1-21 odd, 25, 27-30, project
11.8	Surface Area and Volumes of Spheres	G-GMD.A.2, G-GMD.A.3, G-MG.A.1 (Formulas Given)	Big Ideas Text p. 652-654 #1-35 odd, 39, 42, 48-51, project

Course Expectations and Skills

- Students are required to have proficiency in all prerequisite topics for Algebra 1 and Geometry. 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 learn and utilize a graphing calculator (TI 84+) in this course. They are encouraged to purchase a graphing calculator, but not required. Classroom sets are available for teachers to use as needed. In addition, free on-line graphing apps and programs are promoted by teachers for students on homework.
- 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: Big Ideas Math Geometry Practice Workbook
                                    Dynamic Geometry Software
                                    Geometer's Sketchpad
                                    Kuta Infinite Geometry
                                    [McDougal Littell Geometry Resources](#)
                                    (to open the google folder, right click and copy hyperlink, then paste it into a browser – cannot click on link directly)

Assessment Information

Department of Mathematics – Geometry A

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