GEOMETRY HONORS SYLLABUS

2019- 2020 Academic School-Year

Marking Period 1

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

Section	Title	NJSLS	Suggested Problems *Teachers must also assign mixed review problems as part of homework assignments.
1.1	Points, Lines, and Planes	G-CO.A.1	Big Ideas Text p. 8-10 #1-16, 25-34, 39-4750, 56-63
1.2	Measuring and Constructing Segments	G-CO.A.1, G-CO.B.7, A-CED.A.1	Big Ideas Text p. 16-18 #1, 2, 9-34, 26-29, 31, 33
1.3	Using Midpoint and Distance Formulas	G-GPE.B.7	Big Ideas Text p. 24-26 #1-10, 15-30, 36-39, 45
1.4	Perimeter and Area in the Coordinate Plane	G-CO.A.1	Big Ideas Text p. 34-36 #1-26, 30-31
1.5	Measuring and Constructing Angles	G-CO.A.1, G-CO.B.7, G-CO.D.12	Big Ideas Text p. 43-46 #1-8, 17-30, 33-40, 42-45, 47, 49, 56
1.6	Describing Pairs of Angles	G-MG.A.1	Big Ideas Text p. 52-54 #1-26, 31-43, 51 *Supplemental Text*: McDougal Littell p. 39 #31-33

Chapter 2 – Reasoning and Proof (Test: 2.1 – 2.6)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
2.1	Conditional Statements	G-CO.C.9, G-CO.C.10, G-CO.C.11	Big Ideas Text p. 71-74 #1-3846, 53, 55, 63
2.2	Inductive and Deductive Reasoning	G-CO.C.9, G-CO.C.10, G-CO.C.11	Big Ideas Text p. 80-82 #1-2, 9-28, 31-36, 41
2.3	Postulates and Diagrams	G-CO.A.1, G-CO.C.9	Big Ideas Text p. 87-88 #1-8, 13-23
2.4	Algebraic Reasoning	A-REI.A.1, G-CO.C.9, G-CO.C.10, G-CO.C.11	Big Ideas Text p. 96-98 #3-14, 25-42, 53
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 p. 103 #1-10, 13-14 *Supplemental Text:* McDougal Littell Algebra 1 p. 116-118 #3-4, 16, 21-26 *no fill in the blank
2.6	Proving Geometric Relationships	G-CO.C.9	Big Ideas Text p. 111-114 #3-18, 21-24, 29 *Supplemental Text:* McDougal Little Algebra 1 p. 130 #38, 39, 42-44 *no fill in the blank

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

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
3.1	Pairs of Lines and Angles	G-CO.A.1, G-CO.C.9, G-CO.D.12	Big Ideas Text p. 129-130 #1-20, 24-29
3.2	Parallel Lines and Transversals	G-CO.C.9	Big Ideas Text p. 135-136 #3-13, 17-18, 21-22, 24 *Supplemental Text:* McDougal Littell practice workbook B and C proofs
3.3	Proofs with Parallel Lines	G-CO.C.9	Big Ideas Text p. 142-144 #3-8, 13-24, 33-36, 40
3.4	Proofs with Perpendicular Lines	G-CO.C.9	Big Ideas Text p. 153-154 #11-12, 15-23, 25, 27

Section 3.5: Formative Assessment

3.5	Write and Graph Equations of Lines	F-IF.B.5, F-IF.B.6	Big Ideas Text p. 160 #9-20

Marking Period 2

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

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
4.1	Translations	G-CO.A.2, G-CO.A.4, G-CO.A.5, G-CO.B.6, N-VM.A.1	Big Ideas Text p. 178-180 #1-27, 29-20, 38
4.2	Reflections	G-CO.A.2, G-CO.A.4, G-CO.A.5, G-CO.B.6	Big Ideas Text p. 186-187 #1-24, 26-27, 29-32
4.3	Rotations	G-CO.A.2, G-CO.A.4, G-CO.A.5, G-CO.B.6	Big Ideas Text p. 194-196 #7-26, 28, 31-33; p. 204 #5-6 *Supplemental Text:* McDougal Littell practice workbook B & C (rotations around a point other than the origin)
4.5	Dilations	G-CO.A.2, G-SRT.A.1a, G-SRT.A.1b	Big Ideas Text p. 212-214 #1-6, 15-30, 39 *Supplemental Text:* McDougal Littell p. 630 #28, 32

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

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
5.1	Angles of Triangles	G-CO.C.10, G-MG.A.1	Big Ideas Text p. 236-238, #1-6, 11-38, 49-52
5.2	Congruent Polygons	G-CO.B.7	Big Ideas Text p. 243-244, #1-15, 17-18, 21, 23-24
5.3	Prove Triangles Congruent by SAS	G-CO.B.8, G-MG.A.1	Big Ideas Text p. 249-250, #1-18, 25, 29
5.4	Equilateral and Isosceles Triangles	G-CO.C.10, G-CO.D.13, G-MG.A.1	Big Ideas Text p. 256-258 #1-11, 13-16, 19, 23-24, 29-33, 38 *Supplemental Text*: McDougal Littell practice workbook B #9-10

5.5	Prove Triangles Congruent by SSS	G-CO.B.8, G-MG.A.1, G-MG.A.3	Big Ideas Text p. 266-268 #1-10, 13-16, 19-20, 35-36
5.6	Prove Triangles Congruent by ASA and AAS	G-CO.B.8	Big Ideas Text p. 274-276 #1-12, 15-20, 24-26, 29
5.7	Using Congruent Triangles	G-SRT.B.5	Big Ideas Text p. 281-282 #1-8, 15-16 *Supplemental Text*: McDougal Littell p. 260 #23-26

Chapter 6 – Relationships Within Triangles (Test: 6.1 – 6.5)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
6.1	Perpendicular and Angle Bisectors	G-CO.C.9, G-MG.A.1	Big Ideas Text p. 306-307, #1-24, 29, 30
6.2	Bisectors of Triangles	G-CO.D.12, G-C.A.3, G-MG.A.1, G-MG.A.3	Big Ideas Text p. 315-318, #1-16, 25-36, 49-50
6.3	Medians and Altitudes of Triangles	G-CO.C.10	Big Ideas Text p. 324-326 #1-22, 27-28, 31-36, 41-44, 49-50
6.4	The Triangle Midsegment Theorem	G-CO.C.10, G-MG.A.1	Big Ideas Text p. 333-334 #1-3, 7-21
6.5	Indirect Proof and Inequalities in One Triangle	G-CO.C.10	Big Ideas Text p. 340-342 #2, 11-24, 29, 30, 35-37, 40, 41
6.6	Inequalities in Two Triangles	G-CO.C.10	Big Ideas Text p. 347-348 #3-10, 20, 21

Marking Period 3

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

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
7.1	Angles of Polygons	G-CO.C.11	Big Ideas Text p. 364-366, #3-34, 37-41, 50
7.2	Properties of Parallelograms	G-CO.C.11, G-SRT.B.5	Big Ideas Text p. 372-374, #1-22, 31-34, 39, 40
7.3	Proving that a Quadrilateral is a Parallelogram	G-CO.C.11, G-SRT.B.5, G-MG.A.1	Big Ideas Text p. 381-383 #1-16, 21-24, 31-32, 35-38

7.4	Properties of Special Parallelograms	G-CO.C.11, G-SRT.B.5, G-MG.A.1, G-MG.A.3	Big Ideas Text p. 393-395 #1-54, 61-62, 65-71
7.5	Properties of Trapezoids and Kites	G-SRT.B.5, G-MG.A.1	Big Ideas Text p. 403-405 #7-12, 15-34, 46

Chapter 8 – Similarity (Test: 8.1 – 8.4)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
8.1	Similar Polygons	G-SRT.A.2, G-MG.A.3	Big Ideas Text p. 423-426, #1-24, 27-48, 51
8.2	Proving Triangles Similar by AA	G-SRT.A.3, G-SRT.B.5	Big Ideas Text p. 431-432, #1-21, 23-26
8.3	Proving Triangles Similar by SSS and SAS	G-SRT.B.4, G-SRT.B.5, G-GPE.B.5, G-MG.A.1	Big Ideas Text p. 441-442 #1-10, 13-26, 28
8.4	Proportionality Theorems	G-SRT.B.4, G-SRT.B.5, G-GPE.B.6	Big Ideas Text p. 450-452 #1-8, 13-26, 29-30, 38

Chapter 9 – Right Triangles and Trigonometry (Test: 9.1 – 9.7)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
9.1	The Pythagorean Theorem	G-SRT.B.4, G-SRT.C.8	Big Ideas Text p. 468-470 #1-34, 41
9.2	Special Right Triangles	G-SRT.C.8, G-MG-A.1	Big Ideas Text p. 475-476 #1-12, 20
9.3	Similar Right Triangles	G-SRT.B.5	Big Ideas Text p. 482-483 #1-26, 31-34
9.4	The Tangent Ratio	G-SRT.C.6, G-SRT.C.8	Big Ideas Text p. 491-492 #1-12, 15-16, 25
9.5	The Sine and Cosine Ratios	G-SRT.C.6, G-SRT.C.7, G-SRT.C.8	Big Ideas Text p. 498-500 #1-25, 27-31, 34

9.6	Solving Right Triangles	G-SRT.C.8, G-MG.A.1, G-MG.A.3	Big Ideas Text p. 505-506 #1-21, 23, 27-28
9.7	Law of Sines and Law of Cosines	G-SRT.D.10, G-SRT.D.11, G-MG.A.3	Big Ideas Text p. 513-515 #1-8, 13-26, 33-34, 37-42

Marking Period 4

Chapter 10 – Circles (Test: 10.1 – 10.7)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
10.1	Lines and Segments that Intersect Circles	G-CO.A.1, G-C.A.2, G-C.A.4	Big Ideas Text p. 534-536 #1-10, 15-26, 29-34, 37, 40, 45
10.2	Finding Arc Measures	G-C.A.1, G-C.A.2	Big Ideas Text p. 542-543 #1-24, 27-28, 31
10.3	Using Chords	G-C.A.2, G-MG.A.3	Big Ideas Text p. 549-550 #1-11, 13-17, 21
10.4	Inscribed Angles and Polygons	G-CO.D.13, G-C.A.2, G-C.A.3	Big Ideas Text p. 558-559 #1-17, 19-21
10.5	Angle Relationships in Circles	G-C.A.2	Big Ideas Text p. 566-568 #1-25, 34, 39-40
10.6	Segment Relationships in Circles	G-C.A.2, G-MG.A.1	Big Ideas Text p. 573-574 #1-18
10.7	Circles in the Coordinate Plane	G-GPE.A.1, G-GPE.B.4	Big Ideas Text p. 579-580 #1-24 *Use Kuta Software to write equations given the endpoints of the diameter

Chapter 11 – Circumference and Area (Test: 11.1-11.2, Supplement, 11.3)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
11.1	Circumference and Arc Length	G-GMD.A.1, G-C.B.5, G-CO.A.1	Big Ideas Text p. 598-600 #1-18, 23, 24, 33
11.2	Areas of Circles and Sectors	G-GMD.A.1, G-MG.A.2, G-C.B.5	Big Ideas Text p. 606-608 #1-10, 15-28, 31-32, 37

Supplement	Areas of Triangles and Parallelograms	G-GMD.A.3	*Supplemental Text:* McDougal Littell p. 723-724 #3-8, 16-18, 22-27
Supplement	Areas of Rhombuses, Kites, and Trapezoids	G-GMD.A.3	*Supplemental Text:* McDougal Littell p. 733-734 #3-5, 16-18, 24-29
11.3	Areas of Polygons	G-GMD.A.3	Big Ideas Text p. 614-615 #1-25, 27-30

Chapter 11 – Surface Area and Volume (Test: 11.4 – 11.8, Supplement)

Section	Title	NJSLS	Suggested Problems *Teachers should also use mixed review as needed
11.4	Three-Dimensional Figures	G-GMD.B.4	Big Ideas Text p. 621-622 #1-14, 20
11.5	Volumes of Prisms and Cylinders	G-GMD.A.1, G-GMD.A.2, G-GMD.A.3, G-MG.A.1, G-MG.A.2, G-MG.A.3	Big Ideas Text p. 631-633 #1-12, 15, 17-22, 29-33, 35-37, 44, 53, 54
Supplement	Surface Area of Prisms and Cylinders	G-GMD.A.3, G-MG.A.1, G-MG.A.3	*Supplemental Text:* McDougal Littell p. 807-808 #6-11, 13-15, 22, 23
11.6	Volumes of Pyramids	G-GMD.A.1, G-GMD.A.3, G-MG.A.1	Big Ideas Text p. 639-640 #1-9, 11-14, 17-20
Supplement	Surface Area of Pyramids	G-GMD.A.3, G-MG.A.1, G-MG.A.3	*Supplemental Text:* McDougal Littell p. 814-815 #6-9, 23
11.7	Surface Area and Volumes of Cones	G-GMD.A.1, G-GMD.A.3	Big Ideas Text p. 645-646 #1-12, 15-16, 18-22 *Supplemental Text:* McDougal Littell p. 815 #22, 24
11.8	Surface Area and Volumes of Spheres	G-GMD.A.2, G-GMD.A.3, G-MG.A.1	Big Ideas Text p. 652-654 #1-32, 35, 36, 39 *Supplemental Text:* McDougal Littell p. 843 #21-23

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 and maintain those notes in a neat and organized notebook.
- Students are required to have a scientific calculator. Graphing calculators are permitted, but not required.
- 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, to be counted as a quiz grade.

Resources

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 Honors

Marking Period 1	**Marking Period 2**	**Marking Period 3**	**Marking Period 4**
Major (MAJ): Summative Assessments 50%	Major (MAJ): Summative Assessments 50%	Major (MAJ): Summative Assessments 50%	Major (MAJ): Summative Assessments 50%
Benchmark (BMK): 20%	Benchmark (BMK): 20%	Benchmark (BMK): 20%	Benchmark (BMK): 20%
Minor (MIN): Formative Assessments including one project per marking period (alternative form of assessment): 25%	Minor (MIN): Formative Assessments including one project per marking period (alternative form of assessment): 25%	Minor (MIN): Formative Assessments including one project per marking period (alternative form of assessment): 25%	Minor (MIN): Formative Assessments including one project per marking period (alternative form of assessment): 25%
Homework (HW): 5%	Homework (HW): 5%	Homework (HW): 5%	Homework (HW): 5%