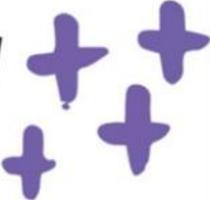


Hempstead Union Free School District
Geometry
Mathematics Pacing Guide
2025–2026 School Year



MISTAKES
ALLOW 
THINKING
HAPPEN 



Mission Statement

We value each student's voice and background, using their work to deepen understanding and guide instruction. By meeting learners where they are and embracing mistakes as thinking opportunities, we foster a culture of reflection, growth, and meaningful mathematical learning.

Vision Statement

We envision a learning community where students are equipped with the critical thinking, problem-solving, and adaptive skills needed to thrive in a world yet to be imagined. Through rigorous, relevant, and responsive math instruction, we prepare all learners to be college- and career-ready, confident in their ability to tackle future challenges with curiosity and resilience.



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Effective Math Teaching Practices

Mathematics Teaching Practices

Establish mathematics goals to focus learning. Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.

Implement tasks that promote reasoning and problem solving. Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning and problem solving and allow multiple entry points and varied solution strategies.

Use and connect mathematical representations. Effective teaching of mathematics engages students in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving.

Facilitate meaningful mathematical discourse. Effective teaching of mathematics facilitates discourse among students to build shared understanding of mathematical ideas by analyzing and comparing student approaches and arguments.

Pose purposeful questions. Effective teaching of mathematics uses purposeful questions to assess and advance students' reasoning and sense making about important mathematical ideas and relationships.

Build procedural fluency from conceptual understanding. Effective teaching of mathematics builds fluency with procedures on a foundation of conceptual understanding so that students, over time, become skillful in using procedures flexibly as they solve contextual and mathematical problems.

Support productive struggle in learning mathematics. Effective teaching of mathematics consistently provides students, individually and collectively, with opportunities and supports to engage in productive struggle as they grapple with mathematical ideas and relationships.

Elicit and use evidence of student thinking. Effective teaching of mathematics uses evidence of student thinking to assess progress toward mathematical understanding and to adjust instruction continually in ways that support and extend learning.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
<p>1</p> <p>No School Labor Day</p>	<p>2</p> <p>First Day of Class Rules, Routines, and Expectations</p>	<p>3</p> <p>Evaluating Expressions With the Aid of a Calculator Using the Distributive Property</p>	<p>4</p> <p>Solving Linear One Step Equations Solving Two-Step Equations</p>	<p>5</p> <p>Solving Multi-Step Equations Rounding Numbers</p>	<p>Click to add text</p>
<p>8</p> <p>Factoring Trinomials</p>	<p>9</p> <p>Diagnostic Exam for Geometry</p>	<p>10</p> <p>Undefined Terms: Points, Lines, Rays, and Planes Parallel/Perpendicular Lines/Planes, and Skew Lines/Planes</p>	<p>11</p> <p>Points, Lines, and Planes/Segment Addition Postulate Big Ideas Geometry</p>	<p>12</p> <p>Spiral Review/30 Minute Quiz</p>	<p>Click to add text</p>
<p>15</p> <p>Define/Identify/Draw/Measure and Classify Angles with Protractor</p>	<p>16</p> <p>Angle Addition Postulate</p>	<p>17</p> <p>Describe Angle Pairs Formed by the Intersection of Two Lines (Adjacent, Complementary, Supplementary, Vertical, and Linear Pair Angles) Big Ideas Geometry</p>	<p>18</p> <p>Finding Unknown Angles Measures (Numerical and Algebraic)</p>	<p>19</p> <p>Angles Formed by Parallel and Transversal Lines</p>	<p>Click to add text</p>
<p>22</p> <p>Classify Triangles by Their Angles and Sides</p>	<p>23</p> <p>No School Rosh Hashanah</p>	<p>24</p> <p>No School Rosh Hashanah</p>	<p>25</p> <p>Angles of Triangles (Interior) Big Ideas Geometry</p>	<p>26</p> <p>Angles of Triangles (Exterior) Big Ideas Geometry</p>	<p>Click to add text</p>
<p>29</p> <p>Angles/30 Minute Quiz</p>	<p>30</p> <p>Simplifying Radicals</p>				

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
		1 The Pythagorean Theorem Big Ideas Geometry	2 No School Yom Kippur	3 The Coordinate Plane (Identify/Plot Ordered Pair in All Four Quadrants) Application Project	
6 Using Midpoint and Distance Formula Big Ideas Geometry	7 Using Midpoint and Distance Formula Big Ideas Geometry	8 Review for Benchmark #1	9 Benchmark #1	10 Data Review	
13 No School Columbus Day	14 Describe/Classify Quadrilaterals	15 Properties of the Parallelograms (Angles/Sides/Diagonals) Big Ideas Geometry	16 Proving that a Quadrilateral is a Parallelogram Big Ideas Geometry	17 Properties of the Special Parallelograms Big Ideas Geometry	
20 Properties of the Special Parallelograms (Coordinate Plane) Big Ideas Geometry	21 Properties of Trapezoids and Kites Big Ideas Geometry	22 Properties of Trapezoids and Kites (Coordinate Plane) Big Ideas Geometry	23 Quadrilaterals/30 Minute Quiz Application Project (Quadrilaterals)	24 Application Project (Quadrilaterals)	
27 Find Perimeters of Polygons	28 Find the Unknown Side Lengths Based on the Perimeter of the Polygon	29 Areas of Polygons (Triangles/Parallelograms) Big Ideas Geometry	30 Finding Perimeters/Areas of Composite Figures/Coordinate Plane	31 Circle Related Vocabulary/Find the Circumference of a Circle	

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
3 Area of Circle/Sector and Arc Length Big Ideas Geometry	4 Professional Development Day- ½ for Students	5 Review for Benchmark #2	6 Benchmark #2	7 Data Review	
10 Slope of a Line/Using Slope Formula	11 No School Veterans Day	12 Equations of Lines in Point-Slope Form	13 Equations of Parallel Lines Big Ideas Geometry	14 Equations of Perpendicular Lines Big Ideas Geometry	
17 Equations of Lines/30 Minute Quiz	18 Translations	19 Line Reflections/Symmetry	20 Point Reflections	21 Rotations about the Origin	
24 Rotations about an Arbitrary Point	25 Rotational Symmetry/Minimum Rotation/Degrees of Rotation	26 ½ day- District Wide Evacuation Drill	27 Closed for Thanksgiving Recess	28 Closed for Thanksgiving Recess	

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
1 Describing Sequences of Rigid Motions/Congruence Transformations	2 Describing Sequences of Rigid Motions/Congruence Transformations	3 Dilations Big Ideas Geometry	4 Dilations/Constructions Big Ideas Geometry	5 Application Project (Dilations)	
8 Application Projects (Dilations)	9 Review for Benchmark #3	10 Benchmark #3	11 Data Review	12 Construction Introduction/Basic Constructions	
15 Copying Angles and Creating Parallel Lines	16 Constructing Perpendicular Bisectors of Triangles/Circumcenter Big Ideas Geometry Free Easy Access Student Edition	17 Constructing Angles Bisectors of Triangles/Incenter Big Ideas Geometry	18 Constructing Medians of Triangles/Centroid Big Ideas Geometry	19 Constructing Altitudes of Triangles/Orthocenter Big Ideas Geometry	
22 No School Holiday Recess	23 No School Holiday Recess	24 No School Holiday Recess	25 No School Holiday Recess	26 No School Holiday Recess	
29 No School Holiday Recess	30 No School Holiday Recess	31 No School Holiday Recess			

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
5 Inscribing Regular Polygons in Circles Big Ideas Geometry	6 Inscribing Regular Polygons in Circles Big Ideas Geometry	7 Constructions/30 Minute Quiz	8 The Triangle Inequality Big Ideas Geometry	9 The Triangle Inequality Big Ideas Geometry	
12 The Properties of Equality	13 The Properties of Equality (Algebraic Proofs)	14 Segment and Angle Proofs (Geometric Proofs)	15 Review for Foundations of Geometry (FoG) Final Exam	16 Foundations of Geometry (FoG) Final Exam	
19 No School MLK Holiday	20 Regents Exams	21 Regents Exams	22 Regents Exams	23 Regents Exams	
26	27	28	29 Click to add text	30 Click to add text	Click to add text

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
<p>2</p> <p>Proving Right Triangles are Congruent by HL</p>	<p>3</p> <p>Equality Properties and Triangle Congruence Proofs/30 Minute Quiz</p>	<p>4</p> <p>Perpendicular Bisector or Triangles (Circumcenter Theorem) (Pages 310-314) Big Ideas Geometry</p>	<p>5</p> <p>Angle Bisectors of Triangles (Incenter Theorem-Angle Bisector) (Pages 310-314) Big Ideas Geometry</p>	<p>6</p> <p>Medians (Centroid) and Altitudes (Orthocenter) of Triangles) Pages 320-323) Big Ideas Geometry</p>	
<p>9</p> <p>The Triangle Midsegment Theorem (Inequality in One Triangle/Quiz/Test) Big Ideas Geometry</p>	<p>10</p> <p>Inequalities in One Triangle (AB+BC>AC; AC+BC>AB; AB+AC>BC); Range of Sides (Obtuse Triangles, Acute Triangles, Right Triangles) (Pages 336-339) Big Ideas Geometry</p>	<p>11</p> <p>Inequalities in One Triangle (AB+BC>AC; AC+BC>AB; AB+AC>BC); Range of Sides (Obtuse Triangles, Acute Triangle, Right Triangles) (Pages 336-339) Big Ideas Geometry</p>	<p>12</p> <p>Similar Polygons (Pages 418-422) Big Ideas Geometry</p>	<p>13</p> <p>Proving Triangles Similar by AA (Pages 428-430) Big Ideas Geometry</p>	
<p>16</p> <p>No School Winter Recess</p>	<p>17</p> <p>No School Winter Recess (Lunar New Year)</p>	<p>18</p> <p>No School Winter Recess</p>	<p>19</p> <p>No School Winter Recess</p>	<p>20</p> <p>No School Winter Recess</p>	
<p>23</p> <p>Proving Triangles Similar by AA (Pages 428-430) Big Ideas Geometry</p>	<p>24</p> <p>Proving Triangles Similar by SSS, SAS (Pages 436-438) Big Ideas Geometry</p>	<p>25</p> <p>Proving Triangles Similar by SSS, SAS (Pages 436-438) Big Ideas Geometry</p>	<p>26</p> <p>Proportionality Theorems (Pages 446-449) Big Ideas Geometry</p>	<p>27</p> <p>Proportionality Theorems (Pages 446-449) Big Ideas Geometry</p>	

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
<p>2 The Pythagorean Theorem (Triples) (Pages 464-467) Big Ideas Geometry</p>	<p>3 Special Right Triangles (30-45-60) (Pages 472-474) Big Ideas Geometry</p>	<p>4 Special Right Triangles (30-45-60) (Pages 472-474) Quiz/Exam</p>	<p>5 Similar Right Triangles (Pages 478-481) Big Ideas Geometry</p>	<p>6 Similar Right Triangles (Pages 478-481) Quiz</p>	
<p>9 PI DAY</p>	<p>10 Review for Geometry Next Gen Benchmark# 1</p>	<p>11 Geometry Next Gen Benchmark # 1</p>	<p>12 Data Review</p>	<p>13 PI DAY</p>	
<p>16 Sine, Cosine, and Tangent Ratios (Pages 488-490/494-497) Big Ideas Geometry Big Ideas Geometry</p>	<p>17 Sine, Cosine, and Tangent Ratios (Pages 488-490/494-497) Quiz/Exam</p>	<p>18 Solving Similar Right Triangles (Pages 478-481) Big Ideas Geometry</p>	<p>19 Solving Similar Right Triangles (Pages 478-481) Quiz</p>	<p>20 Law of Sines and Law of Cosines (Pages 509-512)</p>	
<p>23 Law of Sines and Cosines (Pages 509-512) Quiz/Exam</p>	<p>24 Lines and Segments that Intersect Circles (Pages 530-533) Big Ideas Geometry</p>	<p>25 Line and Segments that Intersect Circles (Pages 530-533) Quiz</p>	<p>26 Finding Arc Measures (Pages 538-540) Big Ideas Geometry</p>	<p>27 Finding Arc Measures (Pages 538-540) Big Ideas Geometry</p>	
<p>30 Finding Arc Measures/Chords (Pages 538-548) Big Ideas Geometry</p>	<p>31 Using Chords (Pages 546 to 548) Quiz/Exam</p>				

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
		1 Using Chords/Quiz	2 First Snow Day (Otherwise school closed)	3 Spring Recess	
6 Spring Recess	7 Spring Recess	8 Spring Recess	9 Spring Recess	10 Spring Recess	
13 Inscribed Angles and Polygons (Pages 553 to 557) Big Ideas Geometry	14 Review for Geometry Next Gen Benchmark #2	15 Geometry Next Gen Benchmark #2	16 Data Review	17 Inscribed Angles and Polygons (Pages 553 to 557) Quiz	
20 Angle Relationships in Circles (Pages 553 to 556) Big Ideas Geometry	21 Angle Relationships in Circles (Page 553 to 556) Quiz	22 Segment Relationships in Circles (Pages 570 to 572) Big Ideas Geometry	23 Segment Relationships in Circles (Pages 570 to 572) Quiz	24 Circle in a Coordinate Plane (Pages 576 to 578) Big Ideas Geometry	
27 Circle in a Coordinate Plane (Pages 576 to 578) Quiz	28 Circle in a Coordinate Plane (Pages 576 to 578) Big Ideas Geometry	29 Cumulative Reviews	30 Exam	1 Circumference and Area of Polygons (Pages 609 to 613) Big Ideas Geometry	

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
<p>4</p> <p>Circumference and Area of Polygons (Pages 609 to 613) Quiz</p>	<p>5</p> <p>Volume (Cylinder and Prism) (Pages 626 to 630) Big Ideas Geometry</p>	<p>6</p> <p>Volume (Cylinder and Prism) (Pages 626 to 630) Quiz</p>	<p>7</p> <p>Volume (Cone and Sphere) (Pages 642 to 651) Big Ideas Geometry Big Ideas Geometry</p>	<p>8</p> <p>Volume (Cone and Sphere) (Pages 642 to 651) Quiz</p>	
<p>11</p> <p>Exam on Volume</p>	<p>12</p> <p>Cumulative Review</p>	<p>13</p> <p>Cumulative Review</p>	<p>14</p> <p>Mock Regents Exam Part 1</p>	<p>15</p> <p>Mock Regents Exam Part 2</p>	
<p>18</p> <p>Regents Review</p>	<p>19</p> <p>Regents Review</p>	<p>20</p> <p>Regents Review</p>	<p>21</p> <p>Regents Review</p>	<p>22</p> <p>2nd Snow Day (otherwise school close)</p>	
<p>25</p> <p>No School Memorial Day</p>	<p>26</p> <p>Regents Review</p>	<p>27</p> <p>Regents Review</p>	<p>28</p> <p>Regents Review</p>	<p>29</p> <p>Regents Review</p>	

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	NOTES
1 Regents Review	2 Regents Review	3 Review for Geometry Next Gen Final Exam	4 Geometry Next Gen Final Exam	5 Regents Review	
8 Regents Review	9 New Regents Exams	10 New Regents Exams	11 Regents Review	12 Regents Review	
15 Regents Review	16 Regents Review	17 Regents Exams	18 Regents Exams	19 Closed for Juneteenth	
22 Rating Day	23 Regents Exams (Geometry Next Gen)	24 Regents Exams	25 Regents Exams	26 Rating Day	
29	30				

Conceptual Category	Domain	Cluster	Cluster Code	Standard
Geometry	Congruence 27% – 34%	Experiment with transformations in the plane.	G-CO.A	G-CO.1
				G-CO.2
				G-CO.3
				G-CO.4
				G-CO.5
		Understand congruence in terms of rigid motions.	G-CO.B	G-CO.6
				G-CO.7
				G-CO.8
				G-CO.9
		Prove geometric theorems.	G-CO.C	G-CO.10
				G-CO.11
		Make geometric constructions.	G-CO.D	G-CO.12
				G-CO.13
	Similarity, Right Triangles, & Trigonometry 29% – 37%	Understand similarity in terms of similarity transformations.	G-SRT.A	G-SRT.1
				G-SRT.2
				G-SRT.3
		Prove theorems involving similarity.	G-SRT.B	G-SRT.4
				G-SRT.5
		Define trigonometric ratios and solve problems involving right triangles.	G-SRT.C	G-SRT.6
				G-SRT.7
	G-SRT.8			
	Apply Trigonometry to general triangles.	G-SRT.D	G-SRT.9	
	Circles 2% – 8%	Understand and apply theorems about circles.	G-C.A	G-C.1
				G-C.2(a,b)
		Find arc lengths and areas of sectors of circles.	G-C.B	G-C.5
	Expressing Geometric Properties with Equations 12% – 18%	Translate between the geometric description and the equation for a conic section.	G-GPE.A	G-GPE.1(a,b)
				G-GPE.4
		Use coordinates to prove simple geometric theorems algebraically.	G-GPE.B	G-GPE.5
				G-GPE.6
	Geometric Measurement & Dimensions 2% – 8%	Explain volume formulas and use them to solve problems.	G-GMD.A	G-GMD.1
				G-GMD.3
		Visualize relationships between two-dimensional and three-dimensional objects.	G-GMD.B	G-GMD.4
Modeling with Geometry 8% – 15%	Apply geometric concepts in modeling situations.	G-MG.A	G-MG.1	
			G-MG.2	
			G-MG.3	

Regents Examination in Geometry Blueprint

The test blueprint for the Regents Examination in Geometry demonstrates NYSED’s commitment to ensuring that educators are able to focus their instruction on the most critical elements of the Geometry course.

The following chart shows the percent of test by credit for the domains in Geometry.

Conceptual Category	Percent of Test by Credit	Domains in Geometry
Geometry	27% – 34%	Congruence (G-CO)
	29% – 37%	Similarity, Right Triangles, and Trigonometry (G-SRT)
	2% – 8%	Circles (G-C)
	12% – 18%	Expressing Geometric Properties with Equations (G-GPE)
	2% – 8%	Geometric Measurement & Dimensions (G-GMD)
	8% – 15%	Modeling with Geometry (G-MG)

Next-Generation Math Content Standards

Next-Generation Math Practice Standards

Standard for Mathematical Practice	Student Friendly Language
1. Make sense of problems and persevere in solving them. 	<ul style="list-style-type: none">I can try many times to understand and solve a math problem.
2. Reason abstractly and quantitatively. 	<ul style="list-style-type: none">I can think about the math problem in my head, first.
3. Construct viable arguments and critique the reasoning of others. 	<ul style="list-style-type: none">I can make a plan, called a strategy, to solve the problem and discuss other students' strategies too.
4. Model with mathematics. 	<ul style="list-style-type: none">I can use math symbols and numbers to solve the problem.
5. Use appropriate tools strategically. 	<ul style="list-style-type: none">I can use math tools, pictures, drawings, and objects to solve the problem.
6. Attend to precision. 	<ul style="list-style-type: none">I can check to see if my strategy and calculations are correct.
7. Look for and make use of structure. 	<ul style="list-style-type: none">I can use what I already know about math to solve the problem.
8. Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none">I can use a strategy that I used to solve another math problem.

Geometry Resources

[NextGen Math SCDN site](#)

[eMathinstruction videos](#)

[Math Medic Link](#)

[Amplify Desmos](#)

[Open Middle](#)

[Which One Doesn't Belong?](#)

[Geogebra](#)

[NYS Math Regents Prep](#)

[Enrichment Google Doc](#)