

# Year at a Glance

Geometry/Geometry Honors  
1206310/1206320



## 2021-2022 School Year

### Course Description:

The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school standards. The Standards for Mathematical Practice apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### Textbook Publisher:

[Big Ideas](#) (Students have online access through [My.SarasotaCountySchools.net](http://My.SarasotaCountySchools.net))

### Other Supplemental Resources:

[Math Nation](#)- (Students log in through [My.SarasotaCountySchools.net](http://My.SarasotaCountySchools.net))

[Khan Academy](#)

[FSA Portal](#)

### Standards:

Available on [CPalms](#)

[Geometry](#)

[Geometry Honors](#)

### Benchmark Assessment Dates

AP1: Oct 4 - 22

AP2: Dec 6 – 22 (Midterm)

AP3: March 1 – 25

Quarter	Standards/Major Concepts/Topics	Resources
Quarter 1	<b>Unit 1: Basics of Geometry</b> <ul style="list-style-type: none"> <li>• Points, lines, and planes</li> <li>• Measuring and constructing segments</li> <li>• Using midpoint and distance formulas</li> <li>• Perimeter and areas in the coordinate plane</li> <li>• Measuring and constructing angles</li> <li>• Describing pairs of angles</li> </ul>	<b>Big Ideas:</b> 1.1 – 1.6  <b>Math Nation (Geometry):</b> Section 1: Topics 1, 2, 4, 5, 10 - 13
	<b>Unit 2: Proofs</b> <ul style="list-style-type: none"> <li>• Postulates and diagrams</li> <li>• Algebraic reasoning</li> <li>• Proving statements about segments and angles</li> <li>• Proving geometric relationships</li> </ul>	<b>Big Ideas:</b> 2.3 – 2.6  <b>Math Nation (Geometry):</b> Section 1, Topic 3
	<b>Unit 3: Parallel &amp; Perpendicular Lines</b> Parallel lines and transversals <ul style="list-style-type: none"> <li>• Proofs with parallel lines</li> <li>• Proofs with perpendicular lines</li> <li>• Equations of parallel and perpendicular lines</li> </ul>	<b>Big Ideas:</b> 3.1 – 3.5  <b>Math Nation (Geometry):</b> Section 1: Topics 6 – 9, 13, 14
	<b>Unit 4: Transformations</b> <ul style="list-style-type: none"> <li>• Translations</li> <li>• Reflections</li> <li>• Rotations</li> <li>• Congruence and transformations</li> <li>• Dilations</li> <li>• Similarity and transformations</li> <li>• Composition of transformations</li> </ul>	<b>Big Ideas:</b> 4.1 – 4.6  <b>Math Nation (Geometry):</b> Section 3: Topics 1 - 9 Section 4: Topics 1 - 7
Quarter 2	<b>Unit 5: Congruent Triangles</b> <ul style="list-style-type: none"> <li>• Angles of triangles</li> <li>• Congruent polygons</li> <li>• Proving triangle congruence by SAS</li> <li>• Equilateral and isosceles triangles</li> <li>• Proving triangle congruence by SSS</li> <li>• Proving triangle congruence by ASA and AAS</li> <li>• Using congruent triangles</li> <li>• Coordinate proofs</li> </ul>	<b>Big Ideas:</b> 5.1 – 5.8  <b>Math Nation (Geometry):</b> Section 5: Topics 1 – 7, 9, 10 Section 6: Topic 7
	<b>Unit 6: Relationships Within Triangles</b> <ul style="list-style-type: none"> <li>• Perpendicular and angle bisectors</li> <li>• Bisectors of triangles</li> <li>• Medians and altitudes of triangles</li> <li>• Triangle Midsegment theorem</li> <li>• Indirect proof and inequalities in one triangle</li> <li>• Inequalities in two triangles</li> </ul>	<b>Big Ideas:</b> 6.1 – 6.6  <b>Math Nation (Geometry):</b> Section 5: Topic 8 Section 6: Topics 3 -5, 7, 8

Teachers may use additional resources as noted on an individual teacher’s syllabus. For specific questions regarding individual classrooms please contact the teacher for clarification.

Quarter 3	<b>Unit 7: Quadrilaterals &amp; Other Polygons</b> <ul style="list-style-type: none"> <li>• Angles of polygons</li> <li>• Properties of parallelograms</li> <li>• Proving that a quadrilateral is a parallelogram</li> <li>• Properties of special parallelograms</li> <li>• Properties of trapezoids and kites</li> </ul>	<b>Big Ideas:</b> 7.1 – 7.5  <b>Math Nation (Geometry):</b> Section 8: Topics 1 - 12
	<b>Unit 8: Similarity</b> <ul style="list-style-type: none"> <li>• Similar polygons</li> <li>• Proving triangle similarity by AA</li> <li>• Proving triangle similarity by SSS and SAS</li> <li>• Proportionality theorems</li> </ul>	<b>Big Ideas:</b> 8.1 – 8.4  <b>Math Nation (Geometry):</b> Section 6: Topics 1, 2, 6
	<b>Unit 9: Right Triangles and Trigonometry</b> <ul style="list-style-type: none"> <li>• The Pythagorean Theorem</li> <li>• Special right triangles</li> <li>• Similar right triangles</li> <li>• The tangent ratio</li> <li>• The sine and cosine ratios</li> <li>• Solving right triangles</li> </ul>	<b>Big Ideas:</b> 9.1 – 9.7  <b>Math Nation (Geometry):</b> Section 7: Topics 1 - 10
Quarter 4	<b>Unit 10: Circles</b> <ul style="list-style-type: none"> <li>• Lines and segments that intersect circles</li> <li>• Finding arc measures</li> <li>• Using chords</li> <li>• Inscribed angles and polygons</li> <li>• Angle relationships in circles</li> <li>• Segment relationships in circles</li> <li>• Circles in the coordinate plane</li> <li>• Proving all circles are similar</li> </ul>	<b>Big Ideas:</b> 10.1 – 10.7  <b>Math Nation (Geometry):</b> Section 9: Topics 5, 6, 8 Section 10: Topics 1 - 9
	<b>Unit 11: Circumference, Area, &amp; Volume</b> <ul style="list-style-type: none"> <li>• Circumference and arc length</li> <li>• Areas of circles and sectors</li> <li>• Areas of polygons</li> <li>• Three-dimensional figures</li> <li>• Volumes of prisms and cylinders</li> <li>• Volumes of pyramids</li> <li>• Surface areas and volumes of cones</li> <li>• Surface areas and volumes of spheres</li> </ul>	<b>Big Ideas:</b> 11.1 – 11.8  <b>Math Nation (Geometry):</b> Section 9: Topics 1 - 4 Section 11: Topics 1 - 14

### Graduation Requirements:

Students earning a standard high school diploma must earn at least one math credit in Algebra 1 or an equivalent course. The student must also pass the FSA Algebra 1 End of Course Exam (EOC) or earn a concordant score. More information on graduation requirements and concordant scores can be found here: [Graduation Requirements for Florida's Statewide Assessments](#).

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