

Geometry Syllabus

Year	2018-2019
Required Resources	<p>Pearson Texas Geometry Textbook and Spring Board (access via Clever) https://my.sisd.net/</p> <p>Instructional aids available through Learning Express https://sisd.mackinvia.com</p>
Process Skills	<ul style="list-style-type: none">- Apply mathematics to problems arising in everyday life, society, and the workplace- Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution- Select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems- Effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language- Use mathematical relationships to generate solutions and make connections and predictions- Analyze mathematical relationships- Display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.



Geometry Syllabus

<p>Syllabus 1st Semester</p>	<p><u>1st Nine Weeks</u></p> <p>Unit 1: Tools of Geometry Algebra I Review, Points, Lines, and Planes, Measuring Segments and Angles, Exploring Angle Pairs, Reasoning and Proof Embed Process Standards, Parents and Conjectures (PAP Only), Conditional Statements (PAP Only), Equation of lines in the coordinate plane, slope of Parallel and Perpendicular lines</p> <p>Unit 2: Reasoning and Proof Deductive reasoning (PAP Only), Proving Angles Congruent (PAP Only)</p> <p>Unit 3: Parallel and Perpendicular lines Lines and angles 6A 1F Properties of parallel lines, Parallel lines and Perpendicular lines and Parallel lines in triangles.</p> <p>Unit 4: Congruent Triangles Congruent Figures, Triangle Congruence by SSS, SAS ASA, AAS, Using Corresponding Parts of Congruent Triangles, Isosceles and Equilateral Triangles, Congruence in Right Triangles</p>
	<p><u>2nd Nine Weeks</u></p> <p>Unit 5: Relations with in Triangles <i>Midpoint and distance in the coordinate plane Mid-segments of triangles, Perpendicular and angle bisectors, Bisectors in Triangles, Medians and Altitudes</i></p> <p>Unit 6: Polygons and Quadrilaterals <i>The Polygon Angle-Sum Theorems, Properties of Parallelograms and Proving that a quadrilateral is a parallelogram, Properties, Conditions, and Areas of Rhombuses, Rectangles, and Squares, Trapezoids and Kites to Include Areas</i></p> <p>Unit 7: Transformational Geometry <i>Transformations, Reflections, Rotations, Dilations</i></p>



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Syllabus
2nd Semester

3rd Nine Weeks

Unit 8: Similarity

Similar Polygons, Proving Triangles Similar, Law of Sines

Unit 9: Right Triangles and Trigonometry

The Pythagorean Theorem and its Converse, Special Right Triangles, Trigonometry and Angles of Depression and Elevation

Unit 10: Area

Areas and Properties of Parallelograms, Triangles, Areas and Properties of trapezoids, rhombuses, and kites and regular polygons. Areas Regular polygons, Perimeters and areas of Similar figures, Trigonometry and Area

Unit 11(a): Surface Area and Volume

Surface area of Prisms, Cylinders, Surface area of pyramids, cones

4th Nine Weeks

Unit 11(b): Surface Area and Volume

Volumes of Prisms, cylinders, Volume of pyramids, cones, Surface area and Volume of spheres, Surface Areas and Volumes of Related Solids

Unit 12: Circle Measurement

Circles and Arcs, Areas of Circles and Sectors

Unit 13: Theorems About Circles

Tangent Lines, Trigonometry and Area, Chords and Arcs, Inscribed Angles, Angle measures and Segment Lengths.

Unit 14: Pre-Calculus

Radian Measure, Circles in the coordinate Plane

