

Geometry Pacing Guide – SAAVAS Envision Textbook

MP 1

Topic 1: Foundations of Geometry

- 1-1: Measuring Segments and Angles.
 - Undefined and Defined Terms.
 - Measuring Segments
 - Measuring Angles
 - Angle Pairs
- 1-3: Midpoint and Distance
 - The Midpoint Formula
 - Segment Partition
 - The Distance Formula
- 1-7: Writing Proofs
 - Algebraic Proofs
 - Geometric Proofs

Topic 2: Parallel and Perpendicular Lines

- 2-1: Properties of Parallel Lines
 - Identifying parallel, perpendicular, skew lines and angles formed by transversals
 - Properties of angles formed by parallel lines.
- 2-2: Proving Lines Parallel
 - Proving Lines are parallel using angle pairs
 - Properties of Perpendicular Lines
- 2-4: Slopes of Parallel and Perpendicular Lines
 - Slopes of Parallel and Perpendicular Lines
 - Writing Equations in Slope Intercept form of Parallel and Perpendicular Lines.
- 2-3: Parallel Lines and Triangles
 - Classifying Triangles
 - Triangle Angle Sum Theorem and Triangle Exterior Angle Theorem

MP 2

Topic 4: Triangle Congruency

- 4-2: Isosceles and Equilateral Triangles
- 4-3: Proving and Applying the SAS and SSS Congruence Criteria
- 4-4: Proving and Applying the ASA and AAS Congruence Criteria
- 4-5: Congruence in Right Triangles (HL Congruence Criteria)

Topic 5: Relationships in Triangles

- 5-1: Perpendicular and Angle Bisectors
- 5-2: Bisectors in Triangles
- 5-3: Median and Altitudes
- 5-4: Inequalities in One Triangle
- 5-5: Inequalities in Two Triangles

Topic 8: Right Triangles and the Pythagorean Theorem.

- 8-1: Right Triangles and the Pythagorean Theorem.
 - The Pythagorean Theorem
 - The Pythagorean Inequality Theorem
 - Special Right Triangles (45-45-90 and 30-60-90)
- 8-2: Trigonometric Ratios
 - Trig ratios
 - Trig ratios in similar triangles
 - Trig ratios and complementary angles
 - Inverse Trig ratios
 - Trig functions and applications
- 8-5: Problem Solving with Trigonometry
 - Angles of Elevation and Depression

MP 3

Topic 3: Transformations

- 3-1: Reflections
- 3-2: Translations
- 3-3: Rotations
- 3-4: Classification of Rigid Motions
 - Composite Transformations (reflection, translation, rotation)
- 3-5: Symmetry
 - Reflectional Symmetry
 - Rotational Symmetry

Topic 7: Similarity

- 7-1: Dilations
- 7-2: Similarity Transformations.
 - Composite Transformations (dilation, reflection, translation, rotation)
- 7-3: Proving Triangles Similar
 - AA, SSS and SAS Similarity Theorems.
 - Proportions word problems.
- 7-4: Similarity in Right Triangles
 - Geometric Mean
- 7-5: Proportions in Triangles
 - Side-Splitter Theorem
 - Triangle Midsegment Theorem
 - Triangle Bisector Theorem

Topic 10: Circles

- 10-1: Arcs and Sectors
- 10-2: Lines Tangent to a Circle
- 10-3: Chords
- 10-4: Inscribed Angles
- 10-5: Secant Lines and Segments

MP 4

Topic 6 Quadrilateral and Other Polygons

- 6-1: The polygon Angle Sum Theorems
- 6-2: Kites and Trapezoids
- 6-3: Properties of Parallelograms
- 6-4: Proving of a Quadrilateral is a parallelogram
- 6-5: Properties of Special Parallelograms
- 6-6: Conditions of Special Pallelograms

Topic 11 Two and Three Dimensional Models

- 11-1: Three-Dimensional Figures and Cross Sections
 - Classifying Solids (prisms, pyramids, cylinders, cones, spheres)
 - Parts of Solids (face, edges, vertices, base, etc.)
 - Cross Sections
 - Axis of Revolution
- 11-2 Volume of Prisms and Cylinders
- 11-3 Volume of Pyramids and Cones
- 11-4 Spheres
 - Volume of Spheres
 - Surface Area of Spheres