

Geometry Year at a Glance

1st Six Weeks

Chapter 0 Preparing for Geometry

- Solving Equations & Inequalities
- Systems of Equations
- Solving Quadratic Equations
- Quadratic Equations w/Applications

Unit 1 Geometric Structure

Chapter 1 Tools of Geometry

- Modeling Points, Lines, & Planes
- Segments, Rays, & Distance
- Segments & Midpoints
- Angles and Special Angle Pairs
- Applications of Angle Pairs
- Basic Constructions

Chapter 2 Reasoning and Proof

- Conditional Statements
- Algebraic Properties & Beginning Proofs

2nd Six Weeks

Chapter 3 Parallel and Perpendicular Lines

- Parallel Lines & Transversals
- Parallel Lines Investigation
- Parallel Lines & Algebra

Unit 2 Congruence

Chapter 4 Congruent Triangles

- Corresponding Parts of Congruent Triangles
- SSS, SS, & ASA with Congruent Triangles
- SSS, SAS, & ASA in Proofs

3rd Six Weeks

Chapter 5 Relationships in Triangles

- Triangle Basics
- Triangle Inequalities
- Interior and Exterior Angles of Polygons

Chapter 6 Quadrilaterals

- Parallelograms
- Rectangles
- Squares & Rhombi
- Trapezoids

4th Six Weeks

Unit 3 Similarity

Chapter 7 Proportions and Similarity

- Ratios and proportions
- Proportional Segments
- Similar Polygons
- Similar Triangles
- Dilations

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- Indirect Measurement

Chapter 8 Right Triangles and Trigonometry

- Pythagorean Theorem
- Converse of Pythagorean Theorem
- 45°-45°-90° Triangles
- 30°-60°-90° Triangles
- 45°-45°-90° & 30°-60°-90° Triangles
- Trigonometric Ratios

5th Six Weeks

Chapter 9 Transformations and Symmetry

- Coordinate Plane
- Reflections, Lines of Symmetry, & Translations
- Rotations & Dilations with Slope
- Tessellations

Unit 4 Measurement

Chapter 10 Circles

- Arcs, Semicircles, & Central Angles
- Arcs & Chords
- Arc Length & Sector Area
- Inscribed Angles
- Angles Formed by Secants & Tangents
- Special Segments in a Circle

6th Six Weeks

Chapter 11 Areas of Polygons and Circles

- Area & Perimeter of Rectangles and Parallelograms
- Area & Perimeter of Triangles and Rhombi
- Area & Perimeter of Trapezoids
- Areas of Regular Hexagons
- Areas of Regular Polygons
- Circle Basics
- Effects of Changing Dimensions

Chapter 12 Extending Surface Area and Volume

- Views of 3-Dimensional Objects
- Prisms & Nets
- Area & Volume of Prisms
- Changing Dimensions
- Pyramids & Nets
- Area & Volume of Pyramids
- Changing Dimensions

Chapter 13 Probability and Measurement

- Representing Sample Spaces
- Probability with Permutations and Combinations
- Geometric Probability
- Simulations
- Independent and Dependent Events