

CURRICULUM OVERVIEW

Blended Learning Library

Geometry Resources



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Geometry Resources Overview

The Blended Learning Library is a supplemental resource which may be used by teachers in conjunction with the subjects of Math 7, Math 8, Algebra I, Geometry, and Algebra II. They are not meant to serve as individual, stand-alone courses. These resources serve as a library of additional material to supplemental the respective course should a teacher decide to use them.

Geometry Resources	Unit 1: Introduction	
	Assignments	
	1. Course Overview 2. Set Theory Review 3. Operations with Sets 4. Point 5. Line	6. Plane 7. Geometric Postulates 8. Review of Algebraic Postulates 9. Geometric Theorems 10. Review of Properties of Algebra
Geometry Resources	Unit 2: Logic	
	Assignments	
	1. Logic 2. Conjunctions 3. Disjunctions 4. Negations 5. Conditional Statements	6. Converse, Inverse, Contrapositive 7. The Given Statement 8. To Prove Statement 9. The Plan of the Proof 10. The Paragraph Proof
Geometry Resources	Unit 3: Angles and Parallels	
	Assignments	
	1. Angle Measurement 2. Angle Relationships 3. Angle Relationship Theorems 4. Basic Properties of Parallels 5. Transversals and Special Angles	6. Classifying Triangles 7. Exterior and Remote Interior Angles of a Triangle 8. Proofs Involving Triangles 9. Other Polygons
Geometry Resources	Unit 4: Congruent Triangles and Quadrilaterals	
	Assignments	
	1. Defining Congruent Triangles 2. Proving Triangles Congruent 3. Proving Right Triangles congruent 4. Independent Triangles 5. Overlapping Triangles 6. Isosceles Triangles	7. Inequality Theorem in One Triangle 8. Quadrilateral Parallelograms Theorems 9. Triangles that Use Parallelograms in Proofs 10. Parallelograms: Rectangles 11. Trapezoids - Definitions and Proofs
Geometry Resources	Unit 5: Similar Polygons	
	Assignments	
	1. Algebra and Ratios 2. Algebra Properties and Proportions 3. Properties of Proportions 4. Meaning of Similarity - Theorems 5. Meaning of Similarity - Proofs 6. The Pythagorean Theorem 7. Theorems about 45-45-90 Right Triangles	8. Using Triangles: Rectangular Solids 9. Using Triangles: Regular Square Pyramid 10. Trigonometry - Sine Ratio 11. Trigonometry - Cosine Ratio 12. Trigonometry - Tangent Ratio 13. Using Similar Triangles in Indirect Measurement 14. Using Trigonometry in Indirect Measurement

Geometry Resources	Unit 6: Circles	
	Assignments	
	1. Tangents 2. Arcs	3. Chords 4. Special Segments
Geometry Resources	Unit 7: Area and Volume	
	Assignments	
	1. Area Concepts of Polygons 2. Area of Regular Polygons 3. Circles: Circumference and Pi 4. Circles: Areas of Circles 5. Circles: Areas of Sectors 6. Circles: Areas of Segments	7. Solids: Prisms 8. Solids: Pyramids 9. Solids: Cylinders 10. Solids: Cones 11. Solids: Spheres 12. Two and Three-Dimensional Objects
Geometry Resources	Unit 8: Coordinate Geometry	
	Assignments	
	1. Symmetry 2. Distance Formula 3. Perimeter and Area 4. Equation of a Circle	5. Midpoint Formula 6. Slope 7. Parallel and Perpendicular Lines 8. Figures in the Coordinate Plane
Geometry Resources	Unit 9: Transformations	
	Assignments	
	1. Isometry: Reflection 2. Isometry: Translations 3. Isometry: Rotations	4. Similarity Transformation: Dilation 5. Inverse and Identity
Geometry Resources	Unit 10: Geometric Application	
	Assignments	
	1. Using SOH CAH TOA in Trigonometry 2. Finding the Values of Trigonometric Functions 3. Law of Sines 4. Ambiguity and Area of a Triangle	5. Law of Cosines: Finding a Side 6. Law of Cosines: Finding an Angle 7. Density
Geometry Resources	Unit 11: Probability	
	Assignments	
	1. Definitions, Sample Spaces and Probability 2. Addition of Probabilities 3. Multiplication of Probabilities 4. Permutations of N Things: Different	5. Conditional Probability 6. Conditional Probability in the Real-World Situations 7. Two-Way Frequency Tables