| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| **Triangle Congruence** | | |
| | Triangle Congruence: SSS and HL | |
| | | Identify the parts that can be used to prove triangle congruency using SSS or HL. |
| | | Complete the steps to prove triangles are congruent using SSS or HL. |
| | | Determine the isometric transformations that would map one triangle onto another triangle given that three corresponding sides are congruent. |
| | Triangle Congruence: SAS | |
| | | Determine the isometric transformations that would map one triangle onto another triangle given that two corresponding sides and the included angle are congruent. |
| | | Identify the sides and angle that can be used to prove triangle congruency using SAS. |
| | | Complete the steps to prove triangles are congruent using SAS. |
| | Triangle Congruence: ASA and AAS | |
| | | Identify the side and angles that can be used to prove triangle congruency using ASA or AAS. |
| | | Complete the steps to prove triangles are congruent using ASA or AAS. |
| | | Determine the isometric transformations that would map one triangle onto another triangle given that two pairs of corresponding angles and one pair of corresponding sides are congruent. |
| | Using Triangle Congruence Theorems | |
| | | Identify the triangle congruency theorem that can be used to prove two triangles congruent. |
| | | Complete the steps to prove angles, segments, and triangles are congruent using triangle congruence theorems and CPCTC. |
| | Test | |
| **Quadrilaterals and Coordinate Algebra** | | |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | Classifying Quadrilaterals | |
| | | Classify and describe relationships within the family of quadrilaterals. |
| | | Describe real-world objects using characteristics of quadrilaterals. |
| | | Solve mathematical problems using characteristics of quadrilaterals. |
| | | Solve real-world problems using characteristics of quadrilaterals. |
| | Parallelograms | |
| | | Complete the steps to prove theorems about properties of parallelograms. |
| | | Apply properties of parallelograms to solve problems. |
| | Proving a Quadrilateral Is a Parallelogram | |
| | | Complete the steps to prove that a quadrilateral is a parallelogram. |
| | | Apply properties of parallelograms to solve for unknown values. |
| | | Analyze a figure to determine if it is a parallelogram. |
| | Special Parallelograms | |
| | | Complete the steps to prove theorems about properties of parallelograms. |
| | | Apply properties of rhombi to solve mathematical and real-world problems. |
| | | Apply properties of rectangles to solve mathematical and real-world problems. |
| | | Apply properties of squares to solve mathematical and real-world problems. |
| | Trapezoids and Kites | |
| | | Complete proofs involving properties of trapezoids and kites. |
| | | Apply properties of trapezoids to solve mathematical and real-world problems. |
| | | Apply properties of kites to solve mathematical and real-world problems. |
| | Figures in the Coordinate Plane | |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | | Apply coordinate algebra proofs to triangles and quadrilaterals. |
| | | Calculate the perimeter of a triangle or quadrilateral given the coordinates of the vertices. |
| | Unit Test | |
| **Circles** | | |
| | Introduction to Circles | |
| | | Complete the steps to prove that all circles are similar. |
| | | Identify and describe terms related to circles. |
| | | Calculate the degree measure of an arc using the arc addition postulate. |
| | Central Angles | |
| | | Identify congruent central angles, chords, and arcs. |
| | | Determine the measures of central angles, chords, and arcs using theorems about angle, chord, and arc congruency. |
| | | Solve problems using the radius tangent theorem and its converse. |
| | Inscribed Angles | |
| | | Complete the steps to prove theorems involving inscribed angles and their intercepted arcs. |
| | | Apply theorems about inscribed angles and angles formed by a tangent and a chord. |
| | Secants, Tangents, and Angles | |
| | | Solve problems involving angles formed by two intersecting chords. |
| | | Solve problems involving angles formed by two secants that intersect outside a circle. |
| | | Solve problems involving angles formed by two intersecting tangents. |
| | | Solve problems involving angles formed by a secant and a tangent that intersect outside a circle. |
| | Special Segments | |
| | | Solve problems involving segments formed by two intersecting chords. |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | | Solve problems involving segments formed by two secants which intersect outside a circle. |
| | | Solve problems involving segments formed by two intersecting tangents. |
| | | Solve problems involving segments formed by a secant and a tangent which intersect outside a circle. |
| | Circumference and Arc Length | |
| | | Solve problems involving circumference of a circle. |
| | | Determine the radian measure of a central angle. |
| | | Solve problems involving arc length with central angles measured in degrees. |
| | | Solve problems involving arc length with central angles measured in radians. |
| | Area of a Circle and a Sector | |
| | | Solve problems involving area of a circle. |
| | | Solve problems involving area of a sector with central angles measured in radians. |
| | | Solve problems involving area of a sector with central angles measured in degrees. |
| | Equation of a Circle | |
| | | Identify the center and radius from the equation of a circle, including equations given in general form. |
| | | Determine the equation of a circle. |
| | | Determine if a given point lies on a circle. |
| | Unit Test | |
| **Geometric Modeling in Two Dimensions** | | |
| | Area of Triangles and Parallelograms | |
| | | Solve problems involving areas of triangles and parallelograms. |
| | Perimeter and Area of Rhombi, Trapezoids, and Kites | |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | | Solve problems involving the area of a rhombus, trapezoid, and kite. |
| | | Solve problems involving the area of a rhombus, trapezoid, and kite given the coordinates of the vertices. |
| | | Calculate the perimeter of a rhombus, trapezoid, or kite given the coordinates of the vertices. |
| | Angle Measures of Polygons | |
| | | Identify and describe polygons. |
| | | Apply the polygon interior angle sum theorem to solve problems. |
| | | Apply the polygon exterior angle sum theorem to solve problems. |
| | Area of Regular Polygons | |
| | | Calculate the length of the apothem of a regular polygon. |
| | | Calculate the area of a regular polygon. |
| | | Solve real-world problems involving the area of regular polygons. |
| | Area of Composite Figures | |
| | | Decompose composite 2-D figures. |
| | | Write an expression that represents the area of a composite 2-D figure. |
| | | Calculate the area of composite 2-D figures, including real-world applications. |
| | Unit Test | |
| **Applications of Probability** | | |
| | Sets and Venn Diagrams | |
| | | Identify and represent elements of sets and subsets, including the empty and universal sets. |
| | | Represent and interpret the union and intersection of sets using set notation and Venn diagrams. |
| | Finding Outcomes | |
| | | Identify possible outcomes for an event. |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | | Evaluate expressions involving factorials. |
| | | Solve combination problems including finding a subset of the total number of possible combinations. |
| | | Solve permutation problems including finding a subset of the total number of possible permutations. |
| | Theoretical and Experimental Probability | |
| | | Identify the sample space of an experiment and the complement of an event. |
| | | Calculate theoretical and experimental probability. |
| | Independent and Mutually Exclusive Events | |
| | | Identify mutually exclusive and independent events. |
| | | Calculate probabilities using the addition rule. |
| | | Calculate probabilities using the multiplication rule of independent events. |
| **Right Triangle Relationships and Trigonometry** | | |
| | Triangle Classification Theorems | |
| | | Classify a triangle using the converse of the Pythagorean theorem and triangle inequality theorems. |
| | | Apply the converse of the Pythagorean theorem and triangle inequality theorems to solve problems. |
| | | Determine an unknown side length or range of side lengths of a triangle given its classification. |
| | Special Right Triangles | |
| | | Complete the steps to prove special right triangle theorems. |
| | | Determine unknown measures of 45°-45°-90° triangles. |
| | | Determine unknown measures of 30°-60°-90° triangles. |
| | | Solve real-world problems involving special right triangles. |
| | Trigonometric Ratios | |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | | Given an acute angle of a right triangle, label the hypotenuse, opposite, and adjacent sides. |
| | | Given an acute angle of a right triangle, write ratios for sine, cosine, and tangent. |
| | | Relate trigonometric ratios of similar triangles and the acute angles of a right triangle. |
| | Solving for Side Lengths of Right Triangles | |
| | | Write equations using trigonometric ratios that can be used to solve for unknown side lengths of right triangles. |
| | | Solve for unknown side lengths of right triangles using trigonometric ratios. |
| | | Apply trigonometric ratios to solve real-world problems. |
| | Solving for Angle Measures of Right Triangles | |
| | | Write equations that can be used to solve for unknown angles in right triangles. |
| | | Solve for unknown angles of right triangles using inverse trigonometric functions. |
| | | Apply inverse trigonometric functions to solve real-world problems. |
| | Law of Sines | |
| | | Complete the steps to prove the law of sines. |
| | | Solve mathematical problems using the law of sines. |
| | | Apply the law of sines to solve real-world problems. |
| | Law of Cosines | |
| | | Complete the steps to prove the law of cosines. |
| | | Solve mathematical problems using the law of cosines. |
| | | Apply the law of cosines to solve real-world problems. |
| | Area and Perimeter of Triangles | |
| | | Derive the area formula A = 1/2absinC. |

| Options EHS Geometry B | | Scope and Sequence |
|---|---|---|
| **Unit** | **Lesson** | **Objectives** |
| | | Solve area and perimeter problems using A = 1/2absinC. |
| | | Solve area and perimeter problems using Heron's formula. |
| | Unit Test | |
| **Cumulative Exam** | | |
| | Cumulative Exam Review | |
| | Cumulative Exam | |