

Timeline	Themes/Enduring Understandings/Essential Questions for the Unit	Common Core Standards Addressed	Assessments	Standards Based Skills and Concepts Targeted	Strategies/Practices Used to Teach Skills and Concepts	Resources/Texts Used
September	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• What are the building blocks of Geometry?</li> <li>• How can you describe the attributes of the geometric terms?</li> <li>• How can you describe angle pairs and their relationships?</li> </ul> <p style="text-align: center;"><b>Enduring Understanding:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Spatial reasoning and visualization are ways to orient thinking about the physical world.</li> <li>• Mathematical statements can be justified through deductive and inductive reasoning.</li> <li>• Relations and functions are mathematical relationships that can be represented and analyzed using words and equations.</li> </ul>	<p><b>G.CO.1</b> Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.</p> <p><b>G.CO.12</b> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).</p> <p><b>Preparation for G.SRT.7</b> Explain and use the relationship between the sine and cosine of complementary angles.</p> <p><b>G.GPE.7</b> Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.</p> <p><b>G.GMD.3</b> Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b></p> <p>15% Quizzes 50% Tests 20% Classwork and Homework 15% Project</p> <p>Criteria by which the student responses will be evaluated:</p> <ul style="list-style-type: none"> <li>• Homework will be graded in class each day by stating answers out loud, placing work on the board, or peer reviewing in cooperative learning groups</li> <li>• Homework quizzes will be graded on mathematical reasoning, accuracy, and presentation of work.</li> <li>• Unit test will be graded on mathematical reasoning, accuracy, and presentation of work.</li> <li>• Notes and journal will be checked periodically for completion and accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the vocabulary in geometric figures</li> <li>• Properly name the vocabulary using the correct symbolization</li> <li>• Set up and solve algebraic equations using this vocabulary</li> </ul>	<p><b>Performance Tasks:</b></p> <p>Collected homework and class work Class Review Chapter Quiz Chapter Test</p> <p><b>Other evidence:</b></p> <p>Daily observations – class problems 5-minute checks Daily homework checks ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b></p> <p>Independent class problems, 5-minute checks Homework Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• Geometry/Text Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>

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September/ October	<p><b>Enduring Understanding:</b></p> <ul style="list-style-type: none"> <li>Mathematical statements can be justified through deductive and inductive reasoning and proof.</li> <li>Patterns exhibit relationships that can be extended, described and generalized.</li> <li>Relations and functions are mathematical relationships that can be represented and analyzed using words and equations.</li> </ul> <p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>What are the similarities and differences between inductive and deductive reasoning?</li> <li>What are the building blocks of formal proof?</li> <li>When is it appropriate to use each type of proof?</li> <li>Why do we use formal proof?</li> </ul>	<p><b>G.MG.3</b> Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).</p> <p><b>Preparation for G.CO.9</b> Prove theorems about lines and angles.</p> <p><b>G.CO.9</b> Prove theorems about lines and angles.</p> <p><b>G.CO.12</b> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>20-point quizzes-Homework quizzes will be given one per week to assess understanding of homework.</li> <li>100-point test-A test will be given at the end of the unit.</li> <li>Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>Selected response</li> <li>Academic prompt</li> <li>Questions and Answer</li> <li>Constructed response</li> <li>Observation</li> <li>Journal Entries</li> <li>Work Sample</li> </ul> <p><b>Assessment Values:</b> 15% Quizzes</p>	<ul style="list-style-type: none"> <li>Identify a hypothesis and conclusion, write conditional, converses, and bi-conditional statements</li> <li>Use properties of equality, vocabulary, and theorems to justify steps.</li> <li>Set up algebraic equations from theorems and postulates, to solve geometric problems.</li> </ul>	<p><b>Performance Tasks:</b> Collected homework and class work Class Review Chapter Quiz Chapter Test</p> <p><b>Other evidence:</b> Daily observations – class problems 5-minute checks Daily homework checks ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b> Independent class problems, 5-minute checks Homework Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>GeometryText Book</li> <li>Quality Core Resources</li> <li>ACT Practice</li> <li>Standardized Test Preparation.</li> </ul>

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October/ November	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• What are the relationships of the angles formed by two lines and a transversal?</li> <li>• Does transitivity of parallel lines exist?</li> <li>• Does transitivity of perpendicular lines?</li> <li>• How can you prove the sum of the angles of a triangle is <math>180^\circ</math>?</li> <li>• What parts of triangle are used to classify them?</li> <li>• How are polygons classified?</li> <li>• What formulas do you use to find the sum of the interior and exterior angles of a regular polygon?</li> <li>• What are the three forms in which an equation can be written?</li> <li>• How can you write the equation of a line given two points?</li> </ul> <p><b>Enduring Understanding:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Some geometric relationships can be described and explored as functional relationships</li> <li>• There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra</li> </ul>	<p><b>G.CO.1</b> Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.</p> <p><b>G.CO.9</b> Prove theorems about lines and angles.</p> <p><b>G.GPE.5</b> Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).</p> <p><b>G.GPE.5</b> Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).</p> <p><b>G.CO.12</b> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding,</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of</li> <li>• homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b></p> <p>15% Quizzes</p>	<ul style="list-style-type: none"> <li>• identify angles from a diagram</li> <li>• draw conclusions about the measurements of the above angles if the lines are parallel.</li> <li>• Beginning proofs using above theorems.</li> <li>• Algebraic problems using the converse of the above theorems.</li> <li>• Proofs using the converse of the above theorems.</li> <li>• Classify a triangle based on its side and angle measure</li> <li>• Find the remote interior or exterior angle of a triangle</li> <li>• Find the sum of the interior angles of a triangle</li> <li>• Apply the polygon exterior and interior angle-sum theorems</li> <li>• Find the interior or exterior angle of a regular polygon</li> <li>• Identify an equation in the slope-intercept form, point slope form or standard form and be able to graph from these forms</li> <li>• Determine whether lines are parallel, perpendicular or neither based on their slopes.</li> </ul>	<p><b>Performance Tasks:</b></p> <p>Collected homework and class work</p> <p>Class Review</p> <p>Chapter Quiz</p> <p>Chapter Test</p> <p><b>Other evidence:</b></p> <p>Daily observations – class problems</p> <p>5-minute checks</p> <p>Daily homework checks</p> <p>ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b></p> <p>Independent class problems, 5-minute checks</p> <p>Homework</p> <p>Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• GeometryText Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>

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	<p><b>Enduring Understanding</b></p> <ul style="list-style-type: none"> <li>Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>Some geometric relationships can be described and explored as functional relationships</li> <li>There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</li> <li>Mathematical statements can be justified through deductive and inductive reasoning and proof.</li> <li>Congruence describes a special similarity relationship between objects and is a form of equivalence.</li> <li>Relations and functions are mathematical relationships that can be represented and analyzed using words and equations.</li> <li>Objects can be transformed in a number of ways. Transformations can be described and analyzed mathematically.</li> </ul> <p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>What conditions must be true in order to prove two triangles congruent?</li> <li>How do you identify corresponding parts of congruent triangles?</li> <li>What are the properties of an isosceles triangle? Equilateral?</li> <li>How can you tell whether a triangle is isosceles or equilateral?</li> <li>How can you identify and apply special segments in triangles?</li> <li>How do you determine if three segment lengths can form a triangle?</li> <li>What are the relationships between the interior and exterior angles of a triangle?</li> <li>How do you use coordinate Geometry to find relationships within triangles?</li> </ul>	<p><b>G.CO.12</b> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).</p> <p><b>G.CO.7</b> Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.</p> <p><b>G.SRT.5</b> Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.</p> <p><b>G.CO.10</b> Prove theorems about triangles.</p> <p><b>G.CO.12</b> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).</p> <p><b>G.CO.6</b> Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.</p> <p><b>G.GPE.4</b> Use coordinates to prove simple geometric theorems algebraically.</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>20-point quizzes-Homework quizzes will be given one per week to assess understanding of homework.</li> <li>100-point test-A test will be given at the end of the unit.</li> <li>Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>Selected response</li> <li>Academic prompt</li> <li>Questions and Answer</li> <li>Constructed response</li> <li>Observation</li> <li>Journal Entries</li> <li>Work Sample</li> </ul> <p><b>Assessment Values:</b></p> <ul style="list-style-type: none"> <li>15% Quizzes</li> <li>50% Tests</li> <li>20% Classwork and Homework</li> <li>15% Project</li> </ul> <p>Criteria by which the student responses will be evaluated:</p> <ul style="list-style-type: none"> <li>Homework will be graded in class each day by stating answers out loud, placing work on the board, or peer reviewing in cooperative learning groups</li> <li>Homework quizzes will be graded on mathematical reasoning, accuracy, and presentation of work.</li> <li>Unit test will be graded on mathematical reasoning, accuracy, and presentation of work.</li> <li>Notes and journal will be checked periodically for completion and accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>Name congruent parts</li> <li>Find congruent triangles</li> <li>Proving triangles congruent</li> <li>Use SSS, SAS, ASA, AAS, HL to prove triangles congruent.</li> <li>Use the Isosceles triangle theorems</li> <li>Do proofs using HL theorem</li> <li>Do proofs using CPCTC</li> </ul>	<p><b>Performance Tasks:</b></p> <ul style="list-style-type: none"> <li>Collected homework and class work</li> <li>Class Review</li> <li>Chapter Quiz</li> <li>Chapter Test</li> </ul> <p><b>Other evidence:</b></p> <ul style="list-style-type: none"> <li>Daily observations – class problems</li> <li>5-minute checks</li> <li>Daily homework checks</li> <li>ACT Practice</li> </ul> <p><b>Student Self-Assessment/Reflection:</b></p> <ul style="list-style-type: none"> <li>Independent class problems, 5-minute checks</li> <li>Homework</li> <li>Final Exams and review sheets</li> </ul>	<ul style="list-style-type: none"> <li>Geometry Text Book</li> <li>Quality Core Resources</li> <li>ACT Practice</li> <li>Standardized Test Preparation.</li> </ul>

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	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• What is the relationship between a midsegment of a triangle and the third side?</li> <li>• How do you use properties of perpendicular bisector and angle bisector to solve problems?</li> <li>• What is the distance from a point to a line?</li> <li>• What is the median, and altitude of a triangle?</li> <li>• How do you use coordinate Geometry to find relationships within triangles?</li> <li>• What is the relationship between the three sides of a triangle?</li> </ul> <p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Some geometric relationships can be described and explored as functional relationships</li> <li>• There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</li> <li>• Mathematical statements can be justified</li> </ul>	<p><b>G.CO.12</b> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).</p> <p><b>G.CO.10</b> Prove theorems about triangles.</p> <p><b>G.MG.3</b> Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b> 15% Quizzes</p>	<ul style="list-style-type: none"> <li>• Find lengths of sides of a triangle using midsegment</li> <li>• Identify parallel segments using midsegment</li> <li>• Use the angle bisector theorem</li> <li>• Finding lengths of medians</li> <li>• Identifying medians and altitudes</li> <li>• Applying the corollary to the triangle exterior angle theorem</li> <li>• Using the triangle inequality theorem</li> <li>• Find possible side lengths</li> </ul>	<p><b>Performance Tasks:</b> Collected homework and class work Class Review Chapter Quiz Chapter Test</p> <p><b>Other evidence:</b> Daily observations – class problems 5-minute checks Daily homework checks ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b> Independent class problems, 5-minute checks Homework Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• Geometry/Text Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>

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	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• How do you know that a figure is a specific special quadrilateral?</li> <li>• How do you classify quadrilaterals?</li> <li>• How can you use Coordinate Geometry to prove a special quadrilateral?</li> <li>• What are the applications of the distance, midpoint and slope formulas in relationship to coordinate Geometry?</li> <li>• How can you use the properties of the special quadrilaterals to solve for side</li> </ul> <p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Some geometric relationships can be described and explored as functional relationships</li> <li>• There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</li> <li>• Mathematical statements can be justified through deductive and inductive reasoning</li> </ul>	<p><b>G.MG.1</b> Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).</p> <p><b>G.CO.11</b> Prove theorems about parallelograms.</p> <p><b>G.GPE.4</b> Use coordinates to prove simple geometric theorems algebraically.</p> <p><b>G.MG.3</b> Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of</li> <li>• homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b> 15% Quizzes</p>	<ul style="list-style-type: none"> <li>• Define and classify special types of quadrilaterals</li> <li>• Use relationships among sides and among angles of parallelograms</li> <li>• Use relationships involving diagonals or transversals</li> <li>• Determine whether a quadrilateral is a parallelogram</li> <li>• Use properties of diagonals of rhombuses and rectangles</li> <li>• Determine whether a parallelogram is a rhombus or rectangle</li> <li>• Verify and use properties of trapezoids and kites</li> <li>• Name special figures using coordinate Geometry</li> </ul>	<p><b>Performance Tasks:</b> Collected homework and class work Class Review Chapter Quiz Chapter Test</p> <p><b>Other evidence:</b> Daily observations – class problems 5-minute checks Daily homework checks ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b> Independent class problems, 5-minute checks Homework Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• Geometry/Text Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>

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	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• How do you use similar proportions to find the side lengths in similar triangles?</li> <li>• What conditions must be true in order to prove two triangles similar?</li> <li>• How do you identify corresponding parts of similar triangles?</li> <li>• How do you use similar proportions to find the side lengths in similar quadrilaterals?</li> <li>• What conditions must be true for two quadrilaterals to be similar?</li> <li>• How do you use similar proportions to find the side lengths in similar polygons?</li> <li>• What conditions must be true for two polygons to be similar?</li> <li>• How do you find the height of a far away object?</li> </ul> <p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Some geometric relationships can be described and explored as functional relationships</li> <li>• There are some mathematical relationships that are always true and these relationships</li> </ul>	<p><b>G.MG.3</b> Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).</p> <p><b>G.SRT.2</b> Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.</p> <p><b>G.SRT.4</b> Prove theorems about triangles.</p> <p><b>G.SRT.5</b> Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b> 15% Quizzes</p>	<ul style="list-style-type: none"> <li>• Find the ratio between height and width.</li> <li>• Use the cross – product property to solve for variables.</li> <li>• Identify and determine whether figures are similar.</li> <li>• Find side lengths of similar figures.</li> <li>• Be able to use the AA-, SAS-, and SSS- postulates and theorems to determine similarity.</li> <li>• Use proportional relationships to solve for missing side lengths in similar figures.</li> <li>• Use the side splitter theorem along with the triangle angle bisector theorem to prove similarity or find missing lengths in similar figures.</li> </ul>	<p><b>Performance Tasks:</b> Collected homework and class work Class Review Chapter Quiz Chapter Test</p> <p><b>Other evidence:</b> Daily observations – class problems 5-minute checks Daily homework checks ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b> Independent class problems, 5-minute checks Homework Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• Geometry/Text Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>

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	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• What are special right triangles?</li> <li>• How do you find the height of a far away object?</li> <li>• How do you find the side length or angle measure in a right triangle?</li> <li>• What theorem is the foundation for all trigonometric functions?</li> </ul> <p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Some geometric relationships can be described and explored as functional relationships</li> <li>• There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</li> <li>• Mathematical statements can be justified through deductive and inductive reasoning and proof.</li> <li>• Congruence describes a special similarity relationship between objects and is a form of equivalence.</li> <li>• Relations and functions are mathematical</li> </ul>	<p><b>G.SRT.4</b> Prove theorems about triangles.</p> <p><b>G.SRT.5</b> Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.</p> <p><b>G.SRT.8</b> Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.</p> <p><b>G.MG.3</b> Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).</p> <p><b>G.SRT.6</b> Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b></p> <p>15% Quizzes</p>	<ul style="list-style-type: none"> <li>• Use the Pythagorean theorem to find side lengths of triangles</li> <li>• Put radical answers in Simplest radical form</li> <li>• Determine the classification of triangles as acute, right or obtuse based on the side lengths.</li> <li>• Use sine, cosine and tangent to determine the side lengths of right triangles given an angle measure and a side length.</li> <li>• Use the inverse of sine, cosine and tangent to determine the angle measures of a right triangle given two side lengths.</li> <li>• Apply the trig ratios to word problems to determine angles of elevation and depression.</li> </ul>	<p><b>Performance Tasks:</b></p> <p>Collected homework and class work</p> <p>Class Review</p> <p>Chapter Quiz</p> <p>Chapter Test</p> <p><b>Other evidence:</b></p> <p>Daily observations – class problems</p> <p>5-minute checks</p> <p>Daily homework checks</p> <p>ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b></p> <p>Independent class problems, 5-minute checks</p> <p>Homework</p> <p>Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• Geometry/Text Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>



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	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• How do perimeters and areas of similar polygons compare?</li> <li>• How do you find the measure of a missing length given the perimeter, circumference or area?</li> <li>• How does a change in the value of one variable in area, perimeter and circumference formulas affect the value of the measurement?</li> <li>• How do you find the area of a regular polygon?</li> <li>• How do you find the probability that a randomly selected point will fall in the shaded area?</li> </ul> <p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>• Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</li> <li>• Some geometric relationships can be described and explored as functional relationships</li> <li>• There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for</li> </ul>	<p>G.GPE.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.</p> <p>G.MG.3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).</p> <p>G.C.5 Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.</p> <p>G.GMD.1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone.</p>	<p><b>To be assessed:</b></p> <p>The students will be assessed on mathematical accuracy, the students' conceptual understanding and their ability to communicate mathematically.</p> <p><b>Collection of evidence:</b></p> <ul style="list-style-type: none"> <li>• 20-point quizzes-Homework quizzes will be given one per week to assess understanding of</li> <li>• homework.</li> <li>• 100-point test-A test will be given at the end of the unit.</li> <li>• Notebook-A notebook will be kept that includes journal entries, lesson notes, examples, student work, and corrections.</li> </ul> <p><b>Types of assessment:</b></p> <ul style="list-style-type: none"> <li>• Selected response</li> <li>• Academic prompt</li> <li>• Questions and Answer</li> <li>• Constructed response</li> <li>• Observation</li> <li>• Journal Entries</li> <li>• Work Sample</li> </ul> <p><b>Assessment Values:</b></p> <p>15% Quizzes</p>	<ul style="list-style-type: none"> <li>• Find the area of parallelogram, triangle, trapezoid, kite, rhombuses, regular polygons, circles.</li> <li>• Find the perimeter of similar figures.</li> <li>• Use coordinate geometry to find area and perimeter of figures.</li> <li>• Find the arc length and area of sectors in circles</li> </ul>	<p><b>Performance Tasks:</b></p> <p>Collected homework and class work</p> <p>Class Review</p> <p>Chapter Quiz</p> <p>Chapter Test</p> <p><b>Other evidence:</b></p> <p>Daily observations – class problems</p> <p>5-minute checks</p> <p>Daily homework checks</p> <p>ACT Practice</p> <p><b>Student Self-Assessment/Reflection:</b></p> <p>Independent class problems, 5-minute checks</p> <p>Homework</p> <p>Final Exams and review sheets</p>	<ul style="list-style-type: none"> <li>• GeometryText Book</li> <li>• Quality Core Resources</li> <li>• ACT Practice</li> <li>• Standardized Test Preparation.</li> </ul>

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