



East Carter Co. R-II School District  
Course Scope and Sequence  
**Course: Geometry**

# OF DAYS	TOPICS
9	Chapter 1: Basics of Geometry Major Topic: Basics of Geometry Concepts: Name points, lines, and planes. Measure segments and angles. Use formulas in the coordinate plane. Construct segments and angles.
13	Chapter 2: Reasoning and Proofs Major Topic: Reasoning and Proofs Concepts: Use inductive and deductive reasoning. Justify steps using algebraic reasoning. Explain postulates using diagrams. Prove geometric relationships.
11	Chapter 3: Parallel and Perpendicular Lines Major Topic: Parallel and Perpendicular Lines Concepts: Identify lines and angles. Describe angle relationships formed by parallel lines and a transversal. Prove theorems involving parallel and perpendicular lines. Write equations of parallel and perpendicular lines.
14	Chapter 4: Transformations Major Topic: Transformations Concepts: Identify transformations. Perform translations, reflections, rotations, and dilations. Describe congruence and similarity transformations. Solve problems involving transformations.

15	<p>Chapter 5: Congruent Triangles  Major Topic: Congruent Triangles  Concepts: Classify triangles by sides and angles.  Solve problems involving congruent polygons.  Prove that triangles are congruent using different theorems.  Write a coordinate proof.</p>
14	<p>Chapter 6: Relationships Within Triangles  Major Topic: Relationships Within Triangles  Concepts: Identify and use perpendicular and angle bisectors of triangles.  Use medians and altitudes of triangles to solve problems.  Find distances using the Triangle Midsegment Theorem.  Compare measures within triangles and between two triangles.</p>
13	<p>Chapter 7: Quadrilaterals and Other Polygons  Major Topic: Quadrilaterals and Other Polygons  Concepts: Find angles of polygons.  Describe properties of parallelograms.  Use properties of parallelograms.  Identify special quadrilaterals.</p>
11	<p>Chapter 8: Similarity  Major Topic: Similarity  Concepts: Identify corresponding parts of similar polygons.  Find and use scale factors in similar polygons.  Prove triangles are similar.  Use proportionality theorems to solve problems.</p>
14	<p>Chapter 9: Right Triangles and Trigonometry  Major Topic: Right Triangles and Trigonometry  Concepts: Use the Pythagorean Theorem to solve problems.  Find side lengths in special triangles.  Explain how similar triangles are used with trigonometric ratios.  Use trigonometric ratios to solve problems.</p>
16	<p>Chapter 10: Circles  Major Topic: Circles  Concepts: Identify lines and segment that intersect circles.  Find angle and arc measures in circles.  Use circle relationships to solve problems.  Use circles to model and solve real-life problems.</p>

10	<p>Chapter 11: Circumference and Area  Major Topic: Circumference and Area  Concepts: Find circumferences of circles and arc lengths of sectors.  Find areas of circles and sectors.  Find areas of polygons.  Solve real-life problems involving area.</p>
14	<p>Chapter 12: Surface Area and Volume  Major Topic: Surface Area and Volume  Concepts: Describe attributes of solids.  Find surface areas and volumes of solids.  Find missing dimensions of solids.  Solve real-life problems involving surface area and volume.</p>
16	<p>Chapter 13: Probability  Major Topic: Probability  Concepts: Define theoretical and experimental probability.  Use two-way tables to find probabilities.  Compare independent and dependent events.  Construct and interpret probability and binomial distributions.</p>

### **Course Description**

In this course, students will be taught the Missouri Learning Standards for Mathematics. We will use a balance of procedural fluency, conceptual understanding, and real-life applications. Students develop conceptual understanding through exploration (inquiry-based learning), continue that development in lessons while gaining procedural fluency during concept and skills practice, and tie it all together with real-life examples. Every lesson set reflects this balance, giving students the rigorous practice they need to be college- and career-ready.