# YNE LOCAL SCHOOLS METRY

# PACING GUIDE DESK REFERENCE 2<sup>nd</sup> QUARTER

Standards	Lessons	Textbook
		Correlation
CCSS.ELA-Literacy.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what	[6 days]	Pearson
the text says explicitly as well as inferences drawn from the text.	, ,	Chapter 5: 5-1, 5
*CCSS.Math.Content.HSG-CO.9 Prove theorems about lines and angles. <i>Theorems include:</i>		2, 5-3, 5-4
vertical angles are congruent; when a transversal crosses parallel lines, alternate		2,33,31
interior angles are congruent and corresponding angles are congruent; points on a perpendicular		
bisector of a line segment are exactly those equidistant from the segment's endpoints.		
*CCSS.Math.Content.HSG-CO.10 Prove theorems about triangles. Theorems include: measures of		
interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the		
segment joining midpoints of two sides of a triangle is parallel to the third side and half the		
length; the medians of a triangle meet at a point.		
CCSS.Math.Content.HSG-CO.12 Make formal geometric constructions with a variety of tools		
and methods (compass and straightedge, string, reflective devices, paper folding, dynamic		
geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting		
an angle; constructing perpendicular lines, including the perpendicular bisector of a line		
segment; and constructing a line parallel to a given line through a point not on the line.		
*CCSS.Math.Content.HSG-SRT.5 Use congruence and similarity criteria for triangles to		
solve problems and to prove relationships in geometric figures.		
CCSS.Math.Content.HSG-C.3 Construct the inscribed and circumscribed circles of a triangle,		
and prove properties of angles for a quadrilateral inscribed in a circle.		
CCSS.ELA-Literacy.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what	[16 days]	Pearson
the text says explicitly as well as inferences drawn from the text.		Chapter 6
*CCSS.Math.Content.HSG-SRT.B.5 Use congruence and similarity criteria for triangles to		-
solve problems and to prove relationships in geometric figures.		
*CSS.Math.Content.HSG-CO.11 Prove theorems about parallelograms. <i>Theorems include: opposite</i>		
sides are congruent, opposite angles are congruent, the diagonals of a parallelogram		
bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.		
*CCSS.Math.Content.HSG-GPE.4 Use coordinates to prove simple geometric theorems		
algebraically. For example, prove or disprove that a figure defined by four given points in the		
coordinate plane is a rectangle; prove or disprove that the point $(1, \sqrt{3})$ lies on the circle		
centered at the origin and containing the point (0, 2).		
*CCSS.Math.Content.HSG-GPE.7 Use coordinates to compute perimeters of polygons and areas of		
triangles and rectangles, e.g., using the distance formula.*		

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CCSS.ELA-Literacy.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what	[11 days]	D
*CCSS.Math.Content.HSG-SRT.4 Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.  *CCSS.Math.Content.HSG-SRT.5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.  *CCSS.Math.Content.HSG-GPE.5 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).	[II uays]	Pearson Chapter 7
CCSS.ELA-Literacy.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.  *CCSS.Math.Content.HSG-SRT.4 Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.  *CCSS.Math.Content.HSG-SRT.7 Explain and use the relationship between the sine and cosine of complementary angles.  *CCSS.Math.Content.HSG-SRT.8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.  *CCSS.Math.Content.HSG-MG.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).	[10 days]	Pearson Chapter 8: Do No Teach 8-5 & 8-6

4: Relationships Within Triangles

5: Polygons & Quadrilaterals

6: Similarity

7: Right Triangles & Trigonometry

hematical Practices:

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#### **Mathematical Practices**

- Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- 5. Use appropriate tools strategically.
- Attend to precision.
- 7. Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

#### n Statements:

- I can use properties of midsegments to solve problems.
  - I can use properties of perpendicular bisectors and angle bisectors.
- I can identify properties of perpendicular bisectors and angle bisectors.
- I can identify properties of medians and altitudes of a triangle.
- I can find the sum of the measures of the interior angles of a polygon.
- I can find the sum of the measures of the exterior angles of a polygon.
- I can use relationships among sides and angles of parallelograms.
- I can use relationships among diagonals of parallelograms.
- I can determine whether a quadrilateral is a parallelogram.
  - I can define and classify special types of parallelograms.
- I can use properties of diagonals of rhombuses and rectangles.

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- I can determine whether a parallelogram is a rhombus or rectangle.
- I can verify and use properties of trapezoids and kites.
- I can classify polygons in the coordinate plane.
- I can name coordinates of special figures by using their properties.
- I can prove theorems using figures in the coordinate plane.
- I can write ratios and solve proportions.
- I can identify and apply similar polygons.
- I can use the AA ~ Postulate and the SAS ~ and SSS ~ Theorems.
- I can use similarity to find indirect measurements.
- I can find and use relationships in similar right triangles.
- I can use the Side-Splitter Theorem and the Triangle-Angle-Bisector Theorem to solve problems.
- I can use the Pythagorean Theorem and its converse.
- I can use the properties of 45°-45°-90° and 30°-60°-90° triangles.
- I can use the sine, cosine, and tangent ratios to determine side lengths and angle measurements in right triangles.
- I can use angles of elevation and depression to solve problems.