

Unit Outline 7th Grade

Timeline	Essential Question/Big Ideas	Content	Standards	Assessments
≈7 Days	<ul style="list-style-type: none"> • What properties do all polygons share? What properties do some sub-groups share? • What are some common benchmark angles? What part of a full turn is each angle equal to? • When a drawing shows two rays with a common endpoint, how many rotation angles are there? How would you estimate the measure of each angle? • How do you measure an angle with an angle ruler and protractor? • In a triangle, what measures of sides and angles give just enough information to draw a figure that is uniquely determined? 	<p>CMP2/3: Shapes and Designs Investigation 1-The Family of Polygons</p> <ul style="list-style-type: none"> • Unit Readiness Assessment • 1.1 Sorting and Sketching Polygons • 1.2 In a Spin • 1.3 Estimating Measures of Rotations and Angles • 1.4 Measuring Angles • 1.5 Design Challenge I • Math Reflections • Check-Up 1 	7.G.A.2	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Unit Readiness Assessment • Check-up 1
≈6 Days	<ul style="list-style-type: none"> • What is the size of each angle and the sum of all angles in a regular polygon with n sides? • What is the angle sum of any polygon with n sides? How do you know your formula is correct? • Which regular polygons can be used to tile a surface without overlaps or gaps, and how do you know your answer is correct? • What is an exterior angle of a polygon, and what do you know about the measures of exterior angles? 	<p>Investigation 2-Designing Polygons: The Angle Connection</p> <ul style="list-style-type: none"> • 2.1 Angle Sums of Regular Polygons • 2.2 Angle Sums of Any Polygon • 2.3 Bees Do It • 2.4 The Ins and Outs of Polygons • Math Reflections • Partner Quiz 	7.EE.A.2, 7.EE.B.4, 7.G.A.2	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Partner Quiz
≈8 Days	<ul style="list-style-type: none"> • What combinations of three side lengths can be used to make a triangle? How many different shapes are possible for such a combination of side lengths? • What is the smallest number of side and angle measurements that will tell you how to draw an exact copy of any given triangle? 	<p>Investigation 3-Designing Triangles and Quadrilaterals</p> <ul style="list-style-type: none"> • 3.1 Building Triangles • 3.2 Design Challenge II • 3.3 Building Quadrilaterals • 3.4 Parallel Lines and Transversals • 3.5 Design Challenge III The Quadrilateral Game • Math Reflections • Looking Back • Unit Project 	7.G.A.2, 7.G.B.5	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Unit Test • Unit Project

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	<ul style="list-style-type: none"> • What combination of side lengths can be used to make a quadrilateral? How many different shapes are possible for any such combination of side lengths? • When two parallel lines are cut by a transversal, what can be said about the eight angles that are formed? • How are squares, rhombuses, rectangles, and trapezoids similar? How are they different? 	<ul style="list-style-type: none"> • Unit Test 		
<p>≈ 5.5 Days</p>	<ul style="list-style-type: none"> • How can you find the total value of a combination of positive and negative integers? • How can you use a number line to compare two numbers? • How can you write a number sentence to represent a change on a number line, and how can you use a number line to represent a number sentence? • How can you use a chip model to represent addition and subtraction? 	<p>CMP2/3: Accentuate the Negative Investigation 1-Extending the Number System</p> <ul style="list-style-type: none"> • Unit Readiness Assessment • 1.1 Playing Math Fever • 1.2 Extending the Number Line • 1.3 From Sauna to Snowbank • 1.4 In the Chips • Math Reflections • Check-up 1 	<p>7.NS.A.1, 7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.3, 7.EE.B.4, 7.EE.B.4b</p>	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Unit Readiness Assessment • Check-up 1
<p>≈ 5.5 Days</p>	<ul style="list-style-type: none"> • How can you predict whether the result of addition of two numbers will be positive, negative, or zero? • How is a chip model or number line useful in determining an algorithm for subtraction? • How are the algorithm for addition and subtraction of integers related? • What related sentence is equivalent to $4 + n = 43$ and makes it easier to find the value of n? 	<p>Investigation 2-Adding and Subtracting Rational Numbers</p> <ul style="list-style-type: none"> • 2.1 Extending Addition to Rational Numbers • 2.2 Extending Subtraction to Rational Numbers • 2.3 The “+/-” Connection • 2.4 Fact Families • Math Reflections • Partner Quiz 	<p>7.NS.A.1, 7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.3, 7.EE.B.3</p>	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Partner Quiz

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≈ 5 Days	<ul style="list-style-type: none"> • How is multiplication of two integers represented on a number line and a chip board? • What algorithm can you use for multiplying integers? • What algorithm can you use for dividing integers? How are multiplication and division of integers related? • What patterns do you notice on the game board for the Integer Product Game that can help you win? 	<p>Investigation 3-Multiplying and Dividing Rational Numbers</p> <ul style="list-style-type: none"> • 3.1 Multiplication Patterns With Integers • 3.2 Multiplication of Rational Numbers • 3.3 Division of Rational Numbers • 3.4 Playing the Integer Product Game • Math Reflections • Check-up 2 	7.NS.A.2, 7.NS.A.2a, 7.NS.A.2b, 7.NS.A.2c, 7.NS.A.2d, 7.NS.A.3, 7.EE.B.3	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Check-up 2
≈ 6 Days	<ul style="list-style-type: none"> • Does the Order of Operations work for integers? • How can you use the Distributive Property to expand an expression or factor an expression that involves integers? • What information in a problem is useful to help you decide which operation to use to solve the problem? 	<p>Investigation 4-Properties of Operations</p> <ul style="list-style-type: none"> • 4.1 Order of Operations • 4.2 The Distributive Property • 4.3 What Operations Are Needed? • Looking Back • Math Reflections • Unit Project • Unit Test 	7.NS.A.1, 7.NS.A.1d, 7.NS.A.2, 7.NS.A.2a, 7.NS.A.2c, 7.NS.A.3, 7.EE.B.3	<ul style="list-style-type: none"> • Daily Check-ins/Problem of the Day • Unit Test • Unit Project

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