

<u>Enrichment Math Grade 4 Mrs. Kathy Pisano</u>	Topic Resources	Skills	Assessment	Common Core Standards Content (Understandings)	Essential Question(s)
August-September	Unit 1: Multiplication and Division Concepts Everyday Math Enrichment Component Chapters 2,3,4,5,6 Buckle Down Lessons: 1,6,7,8,9,10,11,12,13,15,16 Illustrative Math Resources	Advanced Skills: I CAN: *Multiply larger two-digit by two-digit numbers. *Divide by multiples of 10 and beyond *Solve problems involving multi-step equations with two or more operations. *Create multi-step problems using multiple structures.	Pre-assessment will be given to determine level of knowledge. Formative, Summative and Self assessments will also determine knowledge of subject area.	*Place value based on groups of 10 and beyond. *Large whole numbers read left to right. *Large numbers are written by its name in expanded form. *Grouping numbers. *Distributive property *Multiplication and Division structures. *Remainders in division.	*How does the position of a digit in a number affect its value, and how can the value of digits be used to compare two numbers? *In what ways can numbers be composed and decomposed? *How do I determine the factors of a number? *What is the difference between a prime and composite number?

		<p>*Use parenthesis to represent and solve multi-step problems.</p>			<p>*How are multiplication and division related to each other?</p> <p>*What are different models for multiplication and division?</p> <p>*what are efficient methods for finding products and quotients, and how can place value properties aid computation?</p> <p>*How are dividends, divisors, quotients, and remainders related?</p> <p>*What real-life situations require the use of</p>
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					<p>multiplication or division?</p> <p>*How can a remainder affect the answer in a division word problem?</p>
<p>October- November</p>	<p>Unit 2: Fraction Equivalence and Operations.</p> <p>Everyday Math Enrichment Component Chapters 7,10,11,12</p> <p>Buckle Down Lessons: 19,20,21,22,23,24,27,29,30,33</p>	<p>Advanced Skills: I CAN:</p> <p>*Do Equivalent Fractions $(nxa)/(nxb)$</p> <p>*Do Fraction models with fractions of different denominators.</p> <p>*Find Common Denominators</p> <p>*Add and Subtract fractions and mixed numbers with unlike denominators using visual</p>	<p>Pre-assessment will be given to determine level of knowledge.</p> <p>Formative, Summative and Self assessments will also determine knowledge of subject area.</p>	<p>Content:</p> <p>*Students should be able to understand fractions as numbers.</p> <p>*Represent fractions on a number line.</p> <p>*Fluently add and subtract whole numbers.</p> <p>*Use a ruler to measure to the nearest $\frac{1}{4}$, $\frac{1}{2}$ and whole of an inch.</p> <p>*Display data on a line plot.</p>	<p>Essential Questions:</p> <p>*How are fractions used in problem solving situations.</p> <p>*How are fractions composed, decomposed and compared and represented?</p> <p>*Why is it important to identify, label and compare fractions as representations of equal parts of a whole of a set?</p>

		<p>fraction models.</p> <p>*Solve word problems requiring the use of equivalent fractions.</p> <p>*Add and Subtract fractions using manipulatives such as pictures, symbols, etc.</p>			<p>*How can multiplying a whole number by a fraction be displayed as repeated addition (as a multiple of a unit fraction)?</p> <p>*Why does size, length, mass, volume of an object remain the same when converted to another unit of measurement?</p>
<p>December-January</p>	<p>Unit 3: Decimals</p> <p>Everyday Math Enrichment Component Chapters 4,8</p> <p>Buckle Down Lessons 25,26,27</p> <p>Illustrative Math</p>	<p>Advanced Skills: I CAN:</p> <p>*Represent a fraction with denominators of 10 as an equal fraction or with denominators of 100.</p> <p>*Add two</p>	<p>Pre-assessment will be given to determine level of knowledge.</p> <p>Formative, Summative and Self assessments will also determine knowledge of subject area.</p>	<p>Content:</p> <p>*Fractions with denominators of 10 can be expressed as an equivalent fraction with a denominator of 100.</p> <p>*Fractions with denominator of 10 and 100 may be expressed using decimal notation.</p>	<p>Essential Questions:</p> <p>*How can visual models be used to help with understanding decimals?</p> <p>*How can visual models be used to determine and compare</p>

		<p>fractions with denominators of 10 and 100.</p> <p>*Write fractions as decimals.</p> <p>*Compare two decimals using $<$, $>$ and equal signs.</p> <p>*Identify if decimal comparisons are valid or invalid and explain..</p> <p>*Justify your conclusions .</p> <p>*Add fractions with same denominators and add fractions using same denominators.</p>		<p>*When comparing two decimals to hundredths, the comparisons are valid only if they refer to the same whole.</p>	<p>equivalent fractions and decimals?</p> <p>*How would you compare and order decimals through hundredths?</p>
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	<p>Unit 4: Computation Application</p> <p>Everyday Math Enrichment Component Chapter review 3,5,6, 10,11,12</p> <p>Buckle Down Lessons 3,4,5, 15,18</p> <p>Illustrative Math</p>	<p>Advanced Skills: I CAN:</p> <ul style="list-style-type: none"> *Generate patterns that follows a two-step rule. *Identify the rule and extend the pattern for a two-step rule *Convert measurements in the metric system and solve word problems that require the answer to be converted within the metric system. 	<p>Pre-assessment will be given to determine level of knowledge.</p> <p>Formative, Summative and Self assessments will also determine knowledge of subject area.</p>	<p>Content:</p> <ul style="list-style-type: none"> *Patterns are generated by following a specific rule. *Rounding numbers can be used when estimating answers to real world problems. *The four operations are interconnected. *The standard algorithm for addition and subtraction relies on adding and subtracting like base ten units. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> *What strategies can be used to find rules for patterns and what predictions can the pattern support? *How are the four basic operations related to one another? *How does understanding place value help you solve multi-digit addition and subtraction problems? *How can rounding be used to estimate answers to problems?
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<p>February</p>	<p>Unit 4: Computation Application (Continued)</p> <p>Everyday Math Enrichment Component Chapter Review 5,6,3 10,11,12</p> <p>Buckle Down Lessons 27,29,30,31,32</p>	<p>Advanced Skills: I CAN:</p> <p>Same as January skills</p>	<p>Pre-assessment will be given to determine level of knowledge.</p> <p>Formative, Summative and Self assessments will also determine knowledge of subject area.</p>	<p>Content:</p> <p>*Converting from larger to smaller units of measurement in the metric system is done by multiplying by powers of 10 and beyond.</p> <p>*Perimeter is a real life application of addition and subtraction.</p> <p>*Area is a real life application of multiplication and division.</p>	<p>Essential questions:</p> <p>*How are the units of measure within the metric system related?</p> <p>*How do you find the area and perimeter of geometric figures?</p> <p>*How can using the formulas for perimeter and area help you solve real-world problems?</p>
<p>March-April</p>	<p>Unit 5: Two Dimentional Geometry</p> <p>Everyday Math Enrichment Component Chapter Review 1,9</p> <p>Buckle Down Lessons 34,35, 36, 37</p>	<p>Advanced Skills:</p> <p>*Apply their knowledge of geometric attributes to sort and classify two-</p>	<p>Pre-assessment will be given to determine level of knowledge.</p> <p>Formative, Summative and Self assessments will also</p>	<p>Content:</p> <p>*Shapes can be classified by properties of their lines and angles.</p> <p>*Angles are measured in the content of a central angle of a circle.</p>	<p>Essential Questions:</p> <p>*What are the types of angles and their relationships?</p> <p>*How are angles</p>

		<p>dimensional and three-dimensional shapes.</p> <p>*Measure angles greater than 180 degrees and relate them to the fractional part of a circle.</p>	determine knowledge of subject area.		<p>applied in the content of a circle?</p> <p>*How are parallel lines and perpendicular lines used in classifying two-dimensional shapes?</p> <p>*How are protractors used to measure and aid in drawing angles and triangles?</p>
May	<p>Unit 5: Two dimensional Geometry</p> <p>Everyday Math Enrichment Component Chapter Review 1,9</p> <p>Buckle Down Math Lessons: 34,35,36,37</p>	<p>Advanced Skills: same as April</p>	<p>Pre-assessment will be given to determine level of knowledge.</p> <p>Formative, Summative and Self assessments will also determine knowledge of subject area.</p>	<p>Content:</p> <p>*Angles are composed of smaller angles.</p>	<p>Essential Questions:</p> <p>*How can an addition or subtraction equation be used to solve a missing angle measure when the whole angle has been divided into two angles</p>

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