Grade Five/ Unit 1:Whole Number and Decimal Fraction Place Value to the One-Thousandths/ 6 Weeks

<table>
<tr>
<td>Essential Questions:
● How do I reason concretely and pictorially using place value understanding to relate adjacent base ten units from millions to thousandths?
● How do I reason abstractly using place value understanding to relate adjacent base ten units from millions to thousandths?
● How do I use exponents to name place value units and explain patterns in the placement of the decimal point?</td>
<td>Real World Problems/ Applications:
• Creation of timelines within groups to represent connections to place value places and the relationship between values.
• Building numbers using place value and say their relationship to each other.
Future jobs:
Sales jobs, Service jobs (ex: chefs, servers)
Engineering jobs, Accounting job, Agricultural jobs</td>
</tr>
<tr>
<td>Standards/Eligible Content (Skills):
CC.2.1.5.B.1 Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals.
● Demonstrate an understanding that in a multi- digit number, a digit in one place represents 1/10 of what it represents in the place to its left.
● Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole- number exponents to denote powers of 10.
• Read and write decimals to thousandths using base-ten numerals, word form, and expanded form.
● Compare two decimals to thousandths based on meanings of the digits in each place using <, =, and > symbols.
● Round decimals to any place (limit rounding to ones,</td>
<td>Standards Reinforced:
CC.2.1.4.B.1 Apply place-value concepts to show an understanding of multi-digit whole numbers.
● Round multi-digit whole numbers (through millions) to any place.
● Demonstrate an understanding that in a multi-digit whole number (through millions), a digit in one place represents ten times what it represents in the place to its right.
● Compare two multi-digit numbers through millions based on meanings of the digits in each place, using >, =, and < symbols.
● Compare two fractions with different numerators and different denominators (denominators limited to 2,3,4,5,6,8,10,12 and 100) using the symbols >,=, or < and justify the conclusions.
● Compare two decimals to hundredths using the symbols >,=, or < and justify the conclusions.
CC. 2.4.4.A.1 Solve problems involving measurement and</td>
</tr>
</table>

tenths, hundredths, or thousandths place).	conversions from a larger unit to a smaller unit. ● Know relative sizes of measurement units within one system of units including standard units (in., ft., yd., mi., oz., lb; and c, pt, qt, gat), metric units (cm, m, km; g, kg; and mL, L) and time (sec, min, hr, day, wk, mo, and yr). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. A table of equivalencies will be provided. ● Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.
Critical Thinking/Reasoning Skills: Think Alouds, Questioning Techniques, Visualizing, Making Inferences, Synthesizing, Summarizing, Analogies, C.R.A.(Concrete, Representation, Abstract) C: Place Value Disks, Place Value Chart R: Students' Interactive Place Value Chart A: 1/ 10 , 1/ 100, 10 times, and 100 times of place value positions written as a number value and exponent	
Reading/Writing/Listening/Speaking Skills: Journal Writing: Students use for writing essential questions, vocabulary, adding examples, and writing explanations for problems Cooperative Learning Roles in Groups - Speaker to whole group(assign the role of "speaker" when working in small group) - Share/ Discuss within group - Record/ Explain individually - Time Keeper/ Task Orientor	
Fluency: Place value positions millions through thousandths, Sprint component	

Vocabulary: **exponent, millimeter, thousandths-new terms,** <,>,=, base ten units, renaming, regrouping, bundling, unbundling, centimeter (cm), digit, expanded form, hundredths, number line, number sentence, place value, standard form, tenths, unit form, word form-previously learned terms.
Technology/Manipulations/Resources: Manipulatives: place value chart, calculators, number line, place value disks, conversion chart Resources: EngageNY (materials from Module 1), Task Cards, Pinterest Technology: Khan Academy/ Eureka Math, Embarc.online, Achieve the core.org, Career Zone, XPMath.com, HippoCampus.org, pacareerstandards.com, greatminds.org,
Authentic Performance Assessments: Pre/ Post Assessment (use the post assessment as the Pre-Assessment), Mid- Module Review, Exit Tickets-Engageny, Module Topic Quizzes-embarc.online

Grade Five/Unit 2: Multi-Digit Whole Number and Decimal Fraction Operations/ 8 Weeks

Essential Questions: • How do I multiply multi-digit whole numbers and multiples of 10 using place value patterns and the distributive and associative properties? • How do I estimate multi-digit products by rounding factors to a basic fact and using place value patterns? • How do I write and interpret numerical expressions and compare expressions using a visual model?	Real World Problems/Applications: • In- class store • Balancing a checkbook • Budgeting a meal Future Jobs: Construction workers, Agricultual workers, Food processing, Engineers, Electricians, Mathematicians,
Standards/Eligible Content (Skills): MO5.A-T.2 Perform operations with multi- digit whole numbers and with decimals to hundredths. • MO5.A-T.2.1.1.1 Multiply multi- digit whole numbers (not to exceed three- digit by three- digit). • MO5. A-T.2.1.1.2 Find whole- number quotients of whole numbers with up to four- digit dividends and two- digit divisors. • MO5. A-T.2.1.1.3 Add, subtract, multiply, and divide decimals to hundredths (no divisors with decimals). MO.B-O.1 Write and interpret numerical expressions. • MO5.B-O.1.1.1 Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols.	Standards Reinforced: CC.2.2.4.A.1 Represent and solve problems involving the four operations. • Interpret a multiplication equation as a comparison, e.g., interpret 35=5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. • Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

• MO5.B-O.1.1.2 Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them.	CC.2.1.4.B.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic. • Fluently add and subtract multi-digit whole numbers using the standard algorithm. • Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. • Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. Standards Reinforced: CC.2.1.4.B.1 Apply place-value concepts to show an understanding of multi-digit whole numbers. • Round multi-digit whole numbers (through millions) to any place. • Demonstrate an understanding that in a multi-digit whole number (through millions), a digit in one place represents ten times what it represents in the place to its right. • Compare two multi-digit numbers through millions based on meanings of the digits in each place, using >, =, and < symbols. • Compare two fractions with different numerators and different denominators (denominators limited to 2,3,4,5,6,8,10,12 and 100) using the symbols >,=, or < and justify the conclusions.

<table>
<tr><td></td><td>
Compare two decimals to hundredths using the symbols >,=, or < and justify the conclusions.
CC. 2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.

Know relative sizes of measurement units within one system of units including standard units (in., ft., yd., mi., oz., lb; and c, pt, qt, gat), metric units (cm, m, km; g, kg; and mL, L) and time (sec, min, hr, day, wk, mo, and yr). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. A table of equivalencies will be provided.
Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.

</td></tr>
<tr><td colspan="2">Critical Thinking/Reasoning Skills: Think alouds, questioning techniques visualizing, making inferences, synthesizing, summarizing, analogies, C.R.A. (concrete, representation, abstract)
C: Place Value Disks, Place Value Chart
R: Students' Interactive Place Value Chart
A: Apply the patterns of the base ten system to mental strategies and the multiplication and division algorithms</td></tr>
<tr><td colspan="2">Reading/Writing/Listening/Speaking Skills:
Journal Writing: Students use for writing essential questions, vocabulary, adding examples, and writing explanations for problems
Cooperative Learning Roles in Groups
- Speaker to whole group(assign the role of "speaker" when working in small group)
- Share/ Discuss within group
- Record/ Explain individually
- Time Keeper/ Task Orientor</td></tr>
<tr><td colspan="2">Fluency:</td></tr>
</table>

Basic math facts, Place value positions millions through thousandths, Sprint component including rounding, multiplying and dividing including powers of 10 with or without exponents, whole numbers and decimals, distributive property, estimating, value of an expression, expanded form, unit conversions, multiples of a number, dividing with remainders,
Vocabulary: **conversion factor, decimal fraction, multiplier, parentheses-new terms,** decimal, digit, divisor, equation, equivalence, equivalent measures, estimate, exponent, multiple, pattern, product, quotient, remainder, renaming, rounding, unit form- previously learned terms
Technology/Manipulatives/Resources: Manipulatives: Area models, number bond, place value disks, algorithmic methods for partial products and partial quotients, place value charts, decimal squares, conversion charts Technology: calculators, khan academy, turtle multipication-adaptation (low), Eureka math, embarc. Online, Resources: Achieve the core.org, Careen Zone, XPMath.com, HippoCampus.org, parcareerstandards.com, greatminds.org, pintrest, National Library of Virtual Manipulatives
Authentic Performance Assessments: Pre/ Post Assessment (use the post assessment as the Pre-Assessment), Mid- Module Review, Exit Tickets-Engageny, Module Topic Quizzes-embarc.online Performance Task: https://www.illustrativemathematics.org/5 (hit Ctrl and left click to get to hyperlink) Suggested tasks: 5.NBT.B.5, 5.NBT.B.6, 5.NBT.B.7 Performance Tasks with Rubrics: https://www.scoe.org/files/mars-grade5.pdf; https://www.engageny.org/resource/grade-5-mathematics-module-2

Grade Five/ Unit 3: Addition and Subtraction of Fractions/ 4 Weeks

<table>
<tr>
<td>Essential Questions:
• How do I make equivalent fractions with a number line, the area model, and numbers?
• How do I make equivalent fractions with sums of fractions with sums of fractions with like denominators?
• How do I add fractions with unlike units using the strategy of creating equivalent fractions?</td>
<td>Real World Problems/Applications:
• Cooking
• Building a model
Future Jobs:
Farmers, Financial Managers, Medical and Health Services, Engineers</td>
</tr>
<tr>
<td>Standards/Eligible Content (Skills):
CC.2.1.5.C.1 Use the understanding of equivalency to add and subtract fractions.
• Add and subtract fractions (including mixed numbers) with unlike denominators.</td>
<td>Standards Reinforced:
CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering.
• Recognize and generate equivalent fractions.
• Decompose fraction or a mixed number into a sum of fractions with the same denominator (denominators limited to 2,3,4,5,6,8,10.12 and 100), recording the decomposition by an equation. Justify decompositions (e.g. by using a visual fraction model).</td>
</tr>
<tr>
<td colspan="2">Critical Thinking/Reasoning Skills: Think alouds, questioning techniques visualizing, making inferences, synthesizing, summarizing, analogies, C.R.A. (concrete, representation, abstract)

C: fraction bars

R: drawing fractional representations

A: develop understanding of addition and subtraction of fractions to equivalence and decimal relationships</td>
</tr>
<tr>
<td colspan="2">Reading/Writing/Listening/Speaking Skills:</td>
</tr>
</table>

Journal Writing: Students use for writing essential questions, vocabulary, adding examples, and writing explanations for problems Cooperative Learning Roles in Groups * Speaker to whole group (assign the role of “speaker” when working in small group) * Share/ Discuss within group * Record/ Explain individually * Time Keeper/ Task Orientor
Fluency: Factors of a number, Skip counting, Equivalent fractions, Add/ subtract fractions with like/ unlike units including mixed numbers, Fractions equivalent to a whole, Fractions to decimals, Comparing fractions,
Vocabulary: **benchmark fraction, like denominators, unlike denominators-new terms,** between, denominator, equivalent fraction, fraction, fraction greater than or equal to 1, fraction written in the largest possible unit, fractional unit, hundredth, kilometer, meter, centimeter, liter, milliliter, kilogram, gram, mile, yard, foot, inch gallon, quart, pint, cup, pound, ounce, hour, minute, second, more than halfway, and less than halfway, number sentence, numerator, one tenth of, tenth, whole unit, <,>,=
Technology/Manipulatives/Resources: Manipulatives: Fraction strips, number line, paper strips, rectangular fraction model, tape diagrams, conversion chart Technology: khan academy, calculators, Eureka math, embarc. Online, Resources: Achieve the core.org, Careen Zone, XPMath.com, HippoCampus.org, parcareerstandards.com, greatminds.org, pinterest, National Library of Virtual Manipulatives
Authentic Performance Assessments: Pre/ Post Assessment (use the post assessment as the Pre-Assessment), Mid- Module Review, Exit Tickets-Engageny, Module Topic Quizzes-embarc.online Performance Task: https://www.illustrativemathematics.org/5 Suggested Tasks: 5.NF.A.1, 5.NF.A.2, 5.NF.A.3 Performance Tasks with Rubrics: https://www.scoe.org/files/mars-grade5.pdf;https://www.engageny.org/resource/grade-5-mathematics-module-3

Grade Five/ Unit 4: Multiplication and Division of Fractions and Decimal Fractions/ 5 Weeks

Essential Questions: • How do I measure and compare pencil lengths to the nearest ½, ¼, and ⅛ of an inch and analyze the data through line plots? • How do I interpret a fraction as division? • How do I use tape diagrams to model fractions as division?	Real World Problems/Applications: • Create model to scale • Unit price of an item Future Jobs: Ground Maintenance Worker, Personal Home Care Worker, Gaming Services, Forest Conservation Worker, Travel Agents
Standards/Eligible Content (Skills): CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions. • Demonstrate an understanding of multiplication as scaling (resizing). • Divide unit fractions by whole numbers and whole numbers by unit fractions.	Standards Reinforced: CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. • Explain why fractions are equivalent using visual fraction models, with attention to the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. • Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. • Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. • Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator)

	• Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. • Use decimal notation for fractions with denominators 10 or 100.

Critical Thinking/Reasoning Skills: Think alouds, questioning techniques visualizing, making inferences, synthesizing, summarizing, analogies, C.R.A. (concrete, representation, abstract)

C: fraction bars

R: drawing fractional representations

A: multiply fractions and decimal fractions adn begin working with fraction division, fractional measurement to the nearest 1/8 inch and create line plots from data, interpreting fractions as devision, interpret finding a fraction of a set, interpreting numerical expressions, multiplying fraction by fraction.

Reading/Writing/Listening/Speaking Skills:
Journal Writing: Students use for writing essential questions, vocabulary, adding examples, and writing explanations for problems Cooperative Learning Roles in Groups * Speaker to whole group(assign the role of “speaker” when working in small group) * Share/ Discuss within group * Record/ Explain individually * Time Keeper/ Task Orientor

Fluency: Compare fractions, Equivalent fractions, Factors of a number, Divide with remainders, Fractions to decimals, Fractions as division, Fraction conversion including mixed numbers, Convert measurements, Multiply fractions by fractions, whole numbers, and decimals, Write expressions,

Vocabulary: **Decimal divisor, simplify-new terms,** commutative property, conversion factor, decimal fraction, denominator, distribute, divide, division, equation, equivalent fraction, expression, factors, foot, mile yard, inch, gallon, quart, pint, cup, pound, ounce, hour, minute, second, fraction greater than or equal to 1, fraction written in the largest possible unit, fractional unit, hundredth, line plot, mixed number, numerator, parentheses, quotient, tape diagram, tenth, unit, unknown, whole unit- familiar terms,

Technology/Manipulatives/Resources:
Manipulatives: area models, number lines, tape diagrams, conversion chart,
Technology: Khan academy, calculators, Eureka math, embarc. Online,

Resources: Achieve the core.org, Careen Zone, XPMath.com, HippoCampus.org, parcareerstandards.com, greatminds.org, pinterest, National Library of Virtual Manipulatives
Authentic Performance Assessments: Pre/ Post Assessment (use the post assessment as the Pre-Assessment), Mid- Module Review, Exit Tickets-Engageny, Module Topic Quizzes-embarc.online Performance Task: https://www.illustrativemathematics.org/5 Suggested Tasks: 5.NF.B, 5.NF.B.3, 5.NF.B.4, 5.NF.B.4A, 5.NF.B.4B Performance Tasks with Rubrics: https://www.scoe.org/files/mars-grade5.pdf;https://www.engageny.org/resource/grade-5-mathematics-module-4

Grade Five/ Unit 5: Addition and Multiplication with Volume and Area/ 3 Weeks

<table>
<tr>
<td>Essential Questions:

How do you find the volume of right rectangular prisms using the formula for volume?
How do you find the area of rectangular figures with fractional side lengths?
How do you classify shapes by reasoning about their attributes?

</td>
<td>Real World Problems/Applications:

Amount of dirt in a raised garden
Amount of paint to cover a wall
Display Design

Future Jobs:
Landscape Architects, Chemical Engineers, Retail Sales
</td>
</tr>
<tr>
<td>Standards/Eligible Content (Skills):
CC.2.4.5.A.5 Apply concepts of volume to solve problems and relate volume to multiplication and to addition.

Apply the formulas V=l x w x h and V= B x h For rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems. Formulas will be provided.
Find volumes of solid figures composed of two non-overlapping right rectangular prisms.

CC.2.3.5.A.2 Classify two-dimensional figures into categories based on an understanding of their properties.
</td>
<td>Standards Reinforced:
CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures.

Recognize area as an attribute of plane figures and understand concepts of area measurement.
Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

CC.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles.

Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint and understand concepts of angle measurement.
Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure

CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry.

Recognize angle measure as additive.
Understand that shapes in different categories may share attributes

</td>
</tr>
</table>

	• Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines. • Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines. • Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
Critical Thinking/Reasoning Skills: Critical Thinking/Reasoning Skills: Think alouds, questioning techniques visualizing, making inferences, synthesizing, summarizing, analogies, C.R.A. (concrete, representation, abstract) C: area models, cereal boxes to demonstrate, 2 dimensional figures R: illustration, drawings of area, drawings of 2 dimensional figures with descriptions A: multiplication using the algorithm for volume to find volume, classify 2 dimensional figures.	
Reading/Writing/Listening/Speaking Skills: Journal Writing: Students use for writing essential questions, vocabulary, adding examples, and writing explanations for problems Cooperative Learning Roles in Groups * Speaker to whole group (assign the role of “speaker” when working in small group) * Share/ Discuss within group * Record/ Explain individually * Time Keeper/ Task Orientor	
Fluency: Compare fractions, decompose fractions, equivalent fractions, fractions as decimals, fractions as division, convert fractions to mixed numbers, fractions as a set, convert unit measures, multiply/ divide fractions, write expressions, multiply decimals, group count by multiples to 100, compare size of product to one factor, scaling factor, count by fractions, divide decimals by 1/10 & 1/100, order of operations	
Vocabulary: **base, bisect, cubic units, height, hierarchy, unit cube, volume of a solid,** angle, area, attribute, cube, degree measure of an angle, face, kite, parallel lines, parallelogram, perpendicular, perpendicular bisector, plane, polygon, quadrilateral, rectangle, rectangular prism, rhombus, right angle, right rectangular prism, solid figure, square units, three-dimensional figures, trapezoid, two-dimensional figures	
Technology/Manipulatives/Resources:	

Manipulatives: area model, centimeter cubes, centimeter grid paper, isometric dot paper, patty paper, protractor, ruler, set square or right-angle template, tape diagram, conversion chart Technology: khan academy, calculators, Eureka math, embarc. Online, Resources: Achieve the core.org, Careen Zone, XPMath.com, HippoCampus.org, parcareerstandards.com, greatminds.org, pinterest, National Library of Virtual Manipulatives
Authentic Performance Assessments: Pre/ Post Assessment (use the post assessment as the Pre-Assessment), Mid- Module Review, Exit Tickets-Engageny, Module Topic Quizzes-embarc.online Performance Tasks: https://www.illustrativemathematics.org/5 Suggested Tasks: 5.MD.C.3, 5.MD.C.4, 5.MD.C.5 Performance Tasks with Rubrics: https://www.scoe.org/files/mars-grade5.pdf; https://www.engageny.org/resource/grade-5-mathematics-module-5

Grade Five/ Unit 6: Graph Points on Coordinate Plane to Solve Problems/ 3 Weeks

Essential Questions: • How do you construct a coordinate system for the first quadrant of the coordinate plane and use it to solve problems? • How do you locate and plot numbers using two coordinates on the coordinate system? • How do you find relationships between points, ordered pairs, patterns, lines, and more abstractly, the rules that generate them?	Real World Problems/Applications: • Creating designs for a city • Scavenger Hunt • Finding volume of a designated space
Standards/Eligible Content (Skills): C.C.2.2.5.A.1 Interpret and evaluate numerical expressions using order of operations. • Write simple expressions that record calculations with numbers and interpret numerical expressions without evaluating them. C.C.2.2.5.A.4 Analyze patterns and relationships using two rules. • Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. C.C.2.3.5.A.1 Graph points in the first quadrant on the coordinate plane and interpret these points when solving real world and mathematical problems. • Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-	Standards Reinforced: CC.2.2.4.A.1 Represent and solve problems involving the four operations. • Interpret a multiplication equation as a comparison, e.g., interpret 35=5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. CC. 2.2.4.A.4 Generate and analyze patterns using one rule. • Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. Ex: Given the rule "add 3" and the starting number 1, generate terms in a sequence. CC. 2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures • Recognize angles as geometric shapes that are formed wherever two rays share a common

<table>
<tr>
<td>coordinate and y-coordinate). Limit the coordinate plane to quadrant I.
• Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.</td>
<td>endpoint and understand concepts of angle measurement.
• Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
• Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems.</td>
</tr>
<tr>
<td colspan="2">Critical Thinking/Reasoning Skills: Critical Thinking/Reasoning Skills: Think alouds, questioning techniques visualizing, making inferences, synthesizing, summarizing, analogies, C.R.A. (concrete, representation, abstract)

C: visual model-graphing quadrants and coordinate planes

R: ordered pairs, coordinate planes

A: solving problems using coordinate planes, and ordered pairs.</td>
</tr>
<tr>
<td colspan="2">Reading/Writing/Listening/Speaking Skills:
Journal Writing: Students use for writing essential questions, vocabulary, adding examples, and writing explanations for problems Cooperative Learning Roles in Groups * Speaker to whole group (assign the role of “speaker” when working in small group) * Share/ Discuss within group * Record/ Explain individually * Time Keeper/ Task Orientor</td>
</tr>
<tr>
<td colspan="2">Fluency: Count by equivalent fractions, find missing number, name parts of coordinate grid, name coordinate points, plot coordinate points, count by decimals, decimals on a number line, multiply, round to nearest one, add/ subtract decimals, draw, compare, and find unknown degree of angles, multiply multi- digit whole numbers, divide by two- digit numbers, multiply/ divide decimals, simplifying fractions, adding/ subtracting fractions, draw perpendicular lines using a set square, convert mixed numbers/ improper fractions, order of operations, multiply mentally, fractions as division with quotients as mixed numbers, Fibonacci sequence, calculate volume</td>
</tr>
<tr>
<td colspan="2">Vocabulary: axis, coordinate, coordinate pair, coordinate plane, ordered pair, origin, quadrant-new terms, angle, angle measure, degree, horizontal, line, parallel lines, perpendicular lines, point, rule, vertical - familiar terms</td>
</tr>
<tr>
<td colspan="2">Technology/Manipulatives/Resources:
Manipulatives: protractor, ruler, set square, tape diagram, conversion chart</td>
</tr>
</table>

Technology: khan academy, calculators, Eureka math, embarc. Online, Resources: Achieve the core.org, Careen Zone, XPMath.com, HippoCampus.org, parcareerstandards.com, greatminds.org, pinterest, National Library of Virtual Manipulatives
Authentic Performance Assessments: Pre/ Post Assessment (use the post assessment as the Pre-Assessment), Mid- Module Review, Exit Tickets-Engageny, Module Topic Quizzes-embarc.online Performance Tasks: https://www.illustrativemathematics.org/5 Suggested Tasks: 5.G.A.2,5.G.B.3,5.G.B.4 Performance Tasks with Rubrics: https://www.scoe.org/files/mars-grade5.pdf; https://www.engageny.org/resource/grade-5-mathematics-module-6