

Davison Community Schools
ADVISORY CURRICULUM COUNCIL
Phase II, April 20, 2015
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5th grade Math (4th grade CAP)

Course Essential Questions:

- How can we use our understanding of fractions and their models to add and subtract fractions with unlike denominators?
- How does our understanding of division, including the algorithm, work based on the base-ten numerals and properties of operations?
- What is volume? How is it measured?

MAJOR CLUSTERS	- areas of intensive focus, where students need fluent understanding and application of the core concepts.	approximately 70%
SUPPORTING CLUSTERS	- rethinking and linking; areas where some material is being covered, but in a way that applies core understandings.	approximately 20%
ADDITIONAL CLUSTERS	- expose students to other subjects, though at a distinct, level of depth and intensity.	approximately 10%

Tier 3 Vocabulary Words are highlighted in yellow

Unit: 1 Place Value - Understanding, Addition, and subtraction

Essential Questions:

- What occurs when whole numbers and decimals are multiplied or ordered by 10 or powers of 10?

Essential Understanding:

- In a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
- Multiplying by a power of 10 shifts the digits of a whole number or decimal that many places to the left. The exponent not only indicates how many places the decimal point is moving but also that you are multiplying or making the number 10 times greater, three times when you multiply by 10³. (e.g. $3.4 \times 10^3 = 3.4 \times (10 \times 10 \times 10) = 3.4 \times 1,000 = 3,400$)

Curriculum Standards- DOK noted where applicable with Standards

5.NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. **(DOK 1)**

5.NBT.3a Read, write, and compare decimals to thousandths.

a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$. **(DOK 1)**

5.NBT.3b Read, write, and compare decimals to thousandths.

b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. **(DOK 1)**

5.NBT.4 Use place value understanding to round decimals to any place **(DOK 1)**

5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and

subtraction; relate the strategy to a written method and explain the reasoning used. (DOK 1,2,3)

MP-Make sense of problems and persevere in solving them

MP-Reason abstractly and quantitatively

MP-Construct viable arguments and critique the reasoning of others

MP-Model with mathematics

MP-Use appropriate tools strategically

MP-Attend to precision

MP-Look for and make use of structure

MP-Look for and express regularity in repeated reasoning

LEARNING TARGETS

Knowledge/Content	Skills/Processes
I Know ...	I Can ...
<ul style="list-style-type: none">• That in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.• The exponent indicates how many places the decimal point is moving and what direction.• where the thousandths place is.	<ul style="list-style-type: none">• Model and explain that the value of a digit changes as you move to the left (10 times more) or to the right (1/10 less) using manipulatives, pictures, and/or language. (5.NBT.1)• Read decimals to thousandths using base-ten numerals, number names, and expanded form. (5.NBT.3)• Write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \left(\frac{1}{10}\right) + 9 \times \left(\frac{1}{100}\right) + 2 \times \left(\frac{1}{1000}\right)$. (5.NBT.3)• Compare two decimals to thousandths based on meaning of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. (5.NBT.3)• Round decimals to any place. (5.NBT.4)• Use concrete models, pictorial representations, written symbols, and language to show addition, subtraction, multiplication, and division of decimals to hundredths. (5.NBT.7)

Unit: 2 Place Value - Multiplication...	
<p>Essential Questions:</p> <ul style="list-style-type: none"> • How do you multiply multi-digit numbers using a standard algorithm? • How do you choose different division strategies to divide multi-digit numbers? 	<p>Essential Understanding:</p> <ul style="list-style-type: none"> • A standard algorithm is used to fluently multiply multi-digit whole numbers. • A variety of different strategies can be used to divide multi-digit numbers, visual models (rectangular array, equations, and/or area model) and strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.
Curriculum Standards- DOK noted where applicable with Standards	
<p>5.NBT.2 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. (DOK 1,2)</p> <p>5.NBT.5 (Required Fluency) Fluently multiply multi-digit whole numbers using the standard algorithm. (DOK 1)</p> <p>5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-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. (DOK 1,2)</p> <p>5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. (DOK 1,2,3)</p> <p>MP-Make sense of problems and persevere in solving them MP-Reason abstractly and quantitatively MP-Construct viable arguments and critique the reasoning of others MP-Model with mathematics MP-Use appropriate tools strategically MP-Attend to precision MP-Look for and make use of structure MP-Look for and express regularity in repeated reasoning</p>	
LEARNING TARGETS	
Knowledge/Content I Know ...	Skills/Processes I Can ...
<ul style="list-style-type: none"> • the patterns in the number of zeros of the product when multiplying a number by powers of 10 • How to illustrate and explain division (up to 4-digit whole numbers by up to 2-digit whole numbers) calculations by using a visual model (rectangular array, equations, and/or area 	<ul style="list-style-type: none"> • Represent and model the pattern of zeros that occurs when multiplying by powers of 10. ($10^3 = 10 \times 10 \times 10 = 1000$) (5.NBT.2) • Represent and explain the patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. (5.NBT.2)

<p>model) (5.NBT.6).</p> <ul style="list-style-type: none">• Place value strategies, properties of operations, and/or the relationship between multiplication and division.	<ul style="list-style-type: none">• Represent and model the use of a whole number exponent to denote powers of 10. (5.NBT.2)• Fluently multiply multi-digit whole numbers. (5.NBT.5)• Divide up to 4-digit whole numbers by up to 2-digit whole numbers by using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. (5.NBT.6)
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Unit: 3 Fractions	
<p>Essential Questions:</p> <ul style="list-style-type: none"> • What is a reasonable estimate for the answer? • What do equivalent fractions represent and why are they useful when solving equations with fractions? 	<p>Essential Understanding:</p> <ul style="list-style-type: none"> • Benchmark fractions and other strategies aid in estimating the reasonableness of results of operations with fractions • Equivalent fractions are critical when adding and subtracting fractions with unlike denominators. • Use your knowledge of fractions and equivalence of fractions to develop algorithms for adding, subtracting, multiplying, and dividing fractions.
Curriculum Standards- DOK noted where applicable with Standards	
<p>5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.) (DOK 1)</p> <p>5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators. Use benchmark fractions and numbers sense of fractions to estimate mentally and assess the reasonableness of answers. (DOK 1,2,3)</p> <p>5.NF.3 Interpret a fraction as division of the numerator by the denominator. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers. (DOK 1,2)</p> <p>MP-Make sense of problems and persevere in solving them MP-Reason abstractly and quantitatively MP-Construct viable arguments and critique the reasoning of others MP-Model with mathematics MP-Use appropriate tools strategically MP-Attend to precision MP-Look for and make use of structure MP-Look for and express regularity in repeated reasoning</p>	
LEARNING TARGETS	
Knowledge/Content I Know ...	Skills/Processes I Can ...
<ul style="list-style-type: none"> • Benchmark fractions and other strategies aid in estimating the reasonableness of results of operations with fractions • Equivalent fractions are critical when adding and subtracting fractions with unlike denominators. • Use your knowledge of fractions and equivalence of fractions to develop algorithms for adding, subtracting, multiplying, and dividing fractions. 	<ul style="list-style-type: none"> • Add fractions with unlike denominators) by replacing given fractions with equivalent fractions. (5.NF.1) • Add mixed numbers with unlike denominators) by replacing given fractions with equivalent fractions. (5.NF.1) • Subtract fractions with unlike denominators by replacing given fractions with equivalent fractions. (5.NF.1) • Subtract mixed numbers with unlike

	<p>denominators by replacing given fractions with equivalent fractions (5.NF.1)</p> <ul style="list-style-type: none">• Solve word problems involving addition of fractions referring to the same whole, including cases of unlike denominators using visual fraction models and/or equations. (5.NF.2)• Solve word problems involving subtraction of fractions referring to the same whole, including cases of unlike denominators using visual fraction models and/or equations. (5.NF.2)• Use benchmark fractions and number sense to estimate mentally and assess reasonableness of answers. (5.NF.2)• Interpret a fraction as division of the numerator by the denominator. (5.NF.3)• Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers using visual fraction models or equations. (5.NF.3)
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Unit: 4 Fractions cont....

Essential Questions:

- How do operations with fractions relate to operations with whole numbers?
- What models or pictures can be used when solving a mathematical or real-world problem to help decide which operation to use?
- What is a reasonable estimate for the answer?

Essential Understanding:

- Use your knowledge of fractions and equivalence of fractions to develop algorithms for adding, subtracting, multiplying, and dividing fractions.
- The use of area models, fraction strips, and number lines, are effective strategies to model sums, differences, products, and quotients.
- Fractions are division models.
- Multiplication can be interpreted as scaling/resizing (multiplying a given number by a fraction greater than 1 results in a product greater than the given number and multiplying a given number by a fraction less than 1 results in a product smaller than the given number).

Curriculum Standards- DOK noted where applicable with Standards

5.NF.4a Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.) **(DOK 1,2)**

5.NF.4b Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. **(DOK 1,2)**

5.NF.5 Interpret multiplication as scaling (resizing) by:

A. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

B. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number; explaining why multiplying a given number by a fraction less than one results in a product smaller than the given number **(DOK 1, 2,3)**

5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. **(DOK 1,2)**

5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. **(DOK 1,2)**

a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.

b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.

c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$ -cup servings are in 2 cups of raisins?

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LEARNING TARGETS

Knowledge/Content

I Know ...

- I know how to use effective strategies to find products and quotients.
- I know how to find area using a formula.
- I know how to multiply a fraction by a fraction and a fraction by a whole number.
- the relationship between multiplication and division

Skills/Processes

I Can ...

- Multiply a fraction by a whole number. (5.NF.4)
- Use visual fraction models and/or language to interpret multiplication of a fraction by a whole number as multiplying the numerator by the whole and dividing by the denominator. (5.NF.4)
- Multiply a fraction by a fraction. (5.NF.4)
- Use visual fraction models and/or language to interpret multiplication of fractions as multiplying numerators and multiplying denominators. (5.NF.4)
- Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. (5.NF.4)
- Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. (5.NF.4)
- Use language and visuals to explain how multiplication of fractions represents scaling (resizing). (5.NF.5)
- Compare the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication using visuals, real-life situations and/or language. (5.NF.5)
- Explain why multiplying a number by a fraction less than 1, results in a smaller product using visuals, equations, language

	<p>and real-life examples (5.NF.5)</p> <ul style="list-style-type: none">• Explain why multiplying a number by a fraction equal to 1, results in the same product using visuals, equations, language and real-life examples (5.NF.5) E• Explain why multiplying a number by a fraction greater than 1, results in a larger product using visuals, equations, language and real-life examples (5.NF.5)• Solve real world problems involving multiplication of fractions using visual fraction models and equations. (5.NF.6)• Solve real world problems involving multiplication of mixed numbers using visual fraction models and equations. (5.NF.6)• Divide a unit fraction by a non-zero whole number using manipulatives, pictures, equations, real life examples and language. (5.NF.7)• Divide a non-zero whole number by a unit fraction using manipulatives, pictures, equations, real life examples and language. (5.NF.7)• Solve real world problems involving division of a unit fraction by a non-zero whole number and division of a non-zero whole number by a unit fraction using visual models and equations to represent the problem. (5.NF.7)
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Unit: 5 Measurement and Data

Essential Questions:

- What is volume and how is it used in real life?
- How does the area of rectangles relate to the volume of rectangular prisms?

Essential Understanding:

- Volume of three-dimensional figures is measured in cubic units.
- Volume is additive.
- Multiple rectangular prisms can have the same volume.
- Volume can be found by repeatedly adding the area of the base or by multiplying all three dimensions.
- Volume can be used to solve a variety of real life problems.

Curriculum Standards- DOK noted where applicable with Standards

5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step real world problems. **(DOK 1,2)**

5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally. **(DOK 1,2)**

5.MD.3a Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. **(DOK 1,2)**

5.MD.3b Recognize volume as an attribute of solid figures and understand concepts of volume measurement. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units. **(DOK 1)**

5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. **(DOK 1,2)**

5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. **(DOK 1,2)**

5.MD.5a Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent three-fold whole-number products as volumes, e.g., to represent the associative property of multiplication. **(DOK 1,2)**

5.MD.5b Apply the formulas $V = (l)(w)(h)$ and $V = (b)(h)$ 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. **(DOK 1,2)**

5.MD.5c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right

rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems. (DOK 1,2)

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LEARNING TARGETS

Knowledge/Content I Know ...	Skills/Processes I Can ...
<ul style="list-style-type: none"> • That volume of three-dimensional figures is measured in cubic units. • The cubic unit can be written with an exponent (e.g., in³ , m³) • The formula for volume and when and how to use it. • benchmark fractions • what a line plot looks like 	<ul style="list-style-type: none"> • Convert measurements within the metric system to solve multi-step, real world problems. (100cm = 1 meter) (5.MD.1) • Make a line plot to display a data set of measurements in fractions of a unit • Solve problems involving information presented in line plots which use fractions of a unit by adding, subtracting, multiplying, and dividing fractions. • Define volume as the measurement of the space inside a solid three-dimensional figure. (5.MD.3) • Identify and describe unit cubes as representing 1 cubic unit of volume, and how they are used to measure volume of three-dimensional shapes. (5.MD.3) • Model how a solid figure is packed with unit without gaps or overlaps to measure volume. (5.MD.3) • Use the term “cubic units” to describe units of volume measurement. (5.MD.3) • Measure volumes by counting cubes first with manipulatives and then by pictures using cubic cm., cubic in., cubic ft., and improvised units. (5.MD.4) • Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes. (5.MD.5) • Find the volume of a right rectangular prism by finding the area of the base and using repetitive addition to add the layers of height. • Find the volume of a right rectangular prism by finding the area of the base and multiplying by the number of layers in the prism (height). (5.MD.5) • Show that the volume is the same as it would be if volume were found by multiplying the edge lengths. (5.MD.5) • Build a right rectangular prism model to

	<p>represent a 3 factor multiplication expression. (5.MD.5)</p> <ul style="list-style-type: none">• Apply the formula to find volumes of right rectangular prisms with whole number edge lengths in real world and mathematical problems. (5.MD.5)• Find the volume of composite rectangular prisms by adding the volumes of the non-overlapping parts and applying the technique to solve real world problems. (5.MD.5)
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Unit: 6	
<p>Essential Questions:</p> <ul style="list-style-type: none"> How do parentheses, brackets, and braces affect the way you simplify expressions? 	<p>Essential Understanding:</p> <ul style="list-style-type: none"> Parentheses, brackets, and braces are used to guide the order of operations when simplifying expressions.
Curriculum Standards- DOK noted where applicable with Standards	
<p>5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. (DOK 1)</p> <p>5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product. (DOK 1,2)</p> <p>5.OA.3 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. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so. (DOK 1,2)</p> <p>MP-Make sense of problems and persevere in solving them MP-Reason abstractly and quantitatively MP-Construct viable arguments and critique the reasoning of others MP-Model with mathematics MP-Use appropriate tools strategically MP-Attend to precision MP-Look for and make use of structure MP-Look for and express regularity in repeated reasoning</p>	
LEARNING TARGETS	
Knowledge/Content I Know ...	Skills/Processes I Can ...
<ul style="list-style-type: none"> the order of operations. grouping symbols (eg parentheses, brackets, braces) the difference between evaluate and simplify in the context of a numerical expression how to graph ordered pairs that ordered pairs are written (x, y) 	<ul style="list-style-type: none"> Use parentheses, brackets, and braces in numerical expressions. And evaluate those expressions.(5.OA.1) evaluate expressions using the order of operations (including using parentheses, brackets, or braces) interpret numerical expressions without evaluating them write numerical expressions for given numbers with operation words write operation words to describe a given

	<p>numerical expression</p> <ul style="list-style-type: none">• Generate two numerical patterns using two given rules. (5.OA.3)• Identify numerical relationships between corresponding terms in 2 different expressions. (5.OA.3)• Form ordered pairs from the two patterns. (5.OA.3)• Graph the ordered pairs on the coordinate plane. (5.OA.3)
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Unit: 7	
<p>Essential Questions:</p> <ul style="list-style-type: none"> • Why is it important to use precise language and mathematical tools in the study of 2-dimensional and 3-dimensional figures? • How can describing, classifying and comparing properties of 2-dimensional shapes be useful in solving problems in our 3-dimensional world? • How can graphing points on the coordinate plane help to solve real world and mathematical problems? • What is the purpose of a coordinate plane? 	<p>Essential Understanding:</p> <ul style="list-style-type: none"> • Two-dimensional geometric figures are composed of various parts that are described with precise vocabulary. • Two-dimensional geometric figures can be classified based upon their properties. • In a coordinate plane, the first number indicates how far to travel from the origin in the direction of one axis and the second number indicates how far to travel in the direction of the second axis. • The coordinate plane can be used to model and compare numerical patterns.
Curriculum Standards- DOK noted where applicable with Standards	
<p>5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate). (DOK 1)</p> <p>5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. (DOK 1,2)</p> <p>5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles. (DOK 1,2)</p> <p>5.G.4 Classify two-dimensional figures in a hierarchy based on properties. (DOK 1,2)</p> <p>MP-Make sense of problems and persevere in solving them MP-Reason abstractly and quantitatively MP-Construct viable arguments and critique the reasoning of others MP-Model with mathematics MP-Use appropriate tools strategically MP-Attend to precision MP-Look for and make use of structure MP-Look for and express regularity in repeated reasoning</p>	
LEARNING TARGETS	
Knowledge/Content I Know ...	Skills/Processes I Can ...

- Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. (5.G.4)
- The necessary terminology for working with the coordinate plane (e.g. first quadrant, points, lines, origin, ordered pairs, etc).
- Which axis is the x-axis and which is the y-axis?
- Which is the x-coordinate and which is the y-coordinate?

- Graph on the coordinate plane. (5.G.1)
- Identify, describe and explain the relationship between the names of the components of the coordinate plane including origin, x- and y- axis and x- and y-coordinates. (5.G.1)
- Explain how to plot points on the coordinate plane. (5.G.1)
- Graph points from a real-life situation, oral/written language or a written expression on the coordinate plane. (5.G.2)
- Explain the relationship or value of the plotted points in the context of the situation. (5.G.2)
- Identify two-dimensional shapes that can be classified into more than one category based on their attributes. (5.G.3)
- Explain why figures belong in a category or multiple categories. (5.G.3)
- Classify two-dimensional figures in a hierarchy based on properties (5.G.4)