



Course Name Grade 4 Math

Approved: August 26, 2024

Unit Title Unit 5 Geometry and Measurement: Figures, Classification, and Symmetry

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards	Transfer	
<p>CC.2.3: Geometry CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures.</p> <p>CC.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles.</p> <p>CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry.</p> <p>CC.2.4: Measurement, Data and Probability CC.2.4.4.A.6 Measure angles and use properties of adjacent angles to solve problems.</p>	<p><i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> ❑ work with points, lines, angles, and shapes, including using a protractor to measure and draw angles, and recognizing symmetry in figures. 	
	Meaning	
	<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> ❑ Points, lines, line segments, rays, and angles are geometric figures. Knowing about these figures will help students classify shapes based on their attributes. ❑ Students can use what they know about benchmark angles to estimate the size of an angle, or they can measure the angle accurately with a protractor. ❑ Students can use what they know about angles and 	<p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> ❑ How do you identify and draw points, lines, line segments, rays and angles? ❑ How do you tell whether angles are acute, right or obtuse? ❑ How do you identify and draw parallel and perpendicular lines? ❑ How are degrees used to measure angles? ❑ How do you use a protractor to measure angles? ❑ How do you draw an angle with a given measurement?

	<p>parallel perpendicular lines to classify figures.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> How can a larger angle be broken apart into smaller angles? <input type="checkbox"/> How can smaller angles be put together to form a larger angle? <input type="checkbox"/> How do you use addition or subtraction of angle measurements to solve problems? <input type="checkbox"/> How do you sort shapes based on parallel or perpendicular sides and types of angles? <input type="checkbox"/> How do you classify triangles based on sides and angles? <input type="checkbox"/> How do you identify and draw lines of symmetry?
Acquisition		
	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can list properties of geometric figures in two dimensions. <input type="checkbox"/> I understand concepts of angle. <input type="checkbox"/> I know properties of two-dimensional angles, including their lines and angles. <input type="checkbox"/> I can recognize symmetric shapes. 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can draw lines and angles and identify these in two-dimensional figures. <input type="checkbox"/> I can draw and identify lines and angles, and classify shapes by properties of their lines and angles. <input type="checkbox"/> I can classify, draw, and identify geometric figures in two dimensions. <input type="checkbox"/> I can measure angles and use properties of adjacent angles to solve problems. <input type="checkbox"/> I can measure and create angles.

		<ul style="list-style-type: none"><input type="checkbox"/> I can use appropriate tools and units to sketch an angle and determine angle measurements.<input type="checkbox"/> I can classify two-dimensional figures by properties of their lines and angles.<input type="checkbox"/> I can draw lines of symmetry.<input type="checkbox"/> I can identify points, lines, rays, and angles.<input type="checkbox"/> I can use a protractor to draw and measure angles.<input type="checkbox"/> I can add and subtract angles.<input type="checkbox"/> I can classify 2-dimensional figures.<input type="checkbox"/> I can find and understand symmetry.
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Course Name Grade 4 Math

Unit Title Unit 2 Whole Numbers: Place Value, Comparison, Addition, and Subtraction

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards	Transfer	
<p>CC.2.1: Numbers and Operations CC.2.1.4.B.1 Apply place value concepts to show an understanding of multi-digit whole numbers.</p> <p>CC.2.1.4.B.2 Use place value understanding and properties of operations to perform multi-digit arithmetic.</p>	<p><i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> compare, round, add, and subtract whole numbers. 	
	Meaning	
	<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Students can use what they know about place value to read, write, and compare big numbers. <input type="checkbox"/> Knowing that each place in a number is ten times larger than the place to its right can help students determine the value of numbers. <input type="checkbox"/> Students can also use what they know about place value to round numbers and to add and subtract multi-digit numbers. 	<p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> How is the value of a digit related to its place in a number? <input type="checkbox"/> How do you read and write numbers in standard, expanded, and word form? <input type="checkbox"/> How do you compare multi-digit numbers using base-ten block, number lines, and place-value charts? <input type="checkbox"/> How do you round multi-digit numbers? <input type="checkbox"/> How can you use place value to add multi-digit numbers?

		<ul style="list-style-type: none"> <input type="checkbox"/> How can you use the standard algorithm to add multi-digit numbers? <input type="checkbox"/> How do you use estimation to check that a sum is reasonable? <input type="checkbox"/> How can you use place value to subtract multi-digit numbers? <input type="checkbox"/> How can you use the standard algorithm to subtract multi-digit numbers? <input type="checkbox"/> How do you use estimation or addition to check that a difference is reasonable?
Acquisition		
	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can generalize place-value understanding for multi-digit whole numbers. 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can apply place value concepts to show an understanding of multi-digit whole numbers. <input type="checkbox"/> I can apply place-value and numeration concepts to compare, find equivalencies, and round. <input type="checkbox"/> I can use place value understanding and properties of operations to perform multi-digit arithmetic. <input type="checkbox"/> I can use operations to solve problems. <input type="checkbox"/> I can understand place value. <input type="checkbox"/> I can compare whole numbers. <input type="checkbox"/> I can round whole numbers. <input type="checkbox"/> I can add whole numbers. <input type="checkbox"/> I can subtract whole numbers.



Course Name Grade 4 Math

Unit Title Unit 3 Operations: Multiplication, Division, and Algebraic Thinking

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards	Transfer	
<p>CC.2.2: Algebraic Concepts CC.2.2.4.A.1 Represent and solve problems involving the four operations.</p> <p>CC.2.2.4.A.2 Develop and/or apply number theory concepts to find factors and multiples.</p> <p>CC.2.2.4.A.4 Generate and analyze patterns using one rule.</p>	<p><i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> multiply and divide to solve problems, find patterns in numbers and shapes, and solve multi-step problems 	
	Meaning	
	<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Students can solve problems involving multiplicative comparisons by using multiplication or division. <input type="checkbox"/> Knowing basic multiplication facts will help students find the factors of a number. <input type="checkbox"/> Students can use rules to generate or extend a number or shape pattern. 	<p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> How can you use multiplication to compare two numbers? <input type="checkbox"/> How can you write a multiplication and division equations to show and solve a comparison? <input type="checkbox"/> How do you find multiples or factor pairs of a number? <input type="checkbox"/> How do you use multiples and factors to solve problems? <input type="checkbox"/> How can you tell if a number is prime or composite? <input type="checkbox"/> How do you use a rule to continue a number/shape pattern?

		<ul style="list-style-type: none"> <input type="checkbox"/> How can you describe a number or shape pattern in more than one way? <input type="checkbox"/> How do you write an equation to model a multi-step word problem and solve? <input type="checkbox"/> What does the remainder mean in a division word problem? <input type="checkbox"/> How do you use estimation to check to see if an answer is reasonable?
Acquisition		
	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I am familiar with factors and multiples. <input type="checkbox"/> I can describe a variety of patterns. 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can represent and solve problems involving the four operations. <input type="checkbox"/> I can use the four operations with whole numbers to solve problems. <input type="checkbox"/> I can use numbers and symbols to model the concepts of expressions and equations. <input type="checkbox"/> I can develop and/or apply number theory concepts to find factors and multiples. <input type="checkbox"/> I can develop and apply number theory concepts to represent numbers in various ways. <input type="checkbox"/> I can generate and analyze patterns using one rule.

		<ul style="list-style-type: none"><input type="checkbox"/> I can describe, extend, create, and replicate a variety of patterns.<input type="checkbox"/> I can understand multiplication as comparing groups.<input type="checkbox"/> I can use multiplication and division in word problems.<input type="checkbox"/> I can find multiples and factors of numbers.<input type="checkbox"/> I can recognize and describe number and shape patterns.<input type="checkbox"/> I can model and solve problems that need multiple steps.
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Course Name Grade 4 Math

Unit Title Unit 4 Multi-Digit Operations and Measurement: Multiplication, Division, Perimeter, and Area

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards	Transfer	
<p>CC.2.1: Numbers and Operations CC.2.1.4.B.2 Use place value understanding and properties of operations to perform multi-digit arithmetic.</p> <p>CC.2.4: Measurement, Data and Probability CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.</p>	<p><i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> use multiplication and division to solve problems with numbers and measurements, and find perimeter and area. 	
	Meaning	
	<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Students can use what they know about place value to multiply multi-digit numbers. <input type="checkbox"/> Students can use what they know about place value to help them divide. <input type="checkbox"/> Units of measurement can be divided into smaller units. Knowing how these units relate to one another can help students convert measurements from the larger unit to the smaller unit. 	<p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> How do I multiply a three and four digit number by a one digit number? <input type="checkbox"/> How do you multiply a two digit number by a two digit number? <input type="checkbox"/> What strategies did you use to multiply? <input type="checkbox"/> How can you tell if an answer is reasonable? <input type="checkbox"/> How are the sizes of measurement units related? <input type="checkbox"/> How do you convert from a larger measurement unit to a smaller measurement unit?

	<ul style="list-style-type: none"> <input type="checkbox"/> Students can use formulas to find the area and perimeter of rectangles. 	<ul style="list-style-type: none"> <input type="checkbox"/> How do you use a table to show equivalent measurements? <input type="checkbox"/> How do you divide a two or three digit number by a one digit number? <input type="checkbox"/> How do you use multiplication to estimate a quotient? <input type="checkbox"/> What strategies can you use to divide? <input type="checkbox"/> How do you divide a four digit number by a one digit number? <input type="checkbox"/> How do you use multiplication to estimate a quotient? <input type="checkbox"/> What strategies can you use to divide? <input type="checkbox"/> How do you use the formula for the perimeter of a rectangle to solve problems? <input type="checkbox"/> How do you use the formula for the area of a rectangle to solve problems?
Acquisition		
	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can use place value understanding and properties of operations to perform multi-digit arithmetic. <input type="checkbox"/> I can use operations to solve problems. <input type="checkbox"/> I can solve problems involving measurement and conversions from a larger unit to a smaller unit.

		<ul style="list-style-type: none"><input type="checkbox"/> I can solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.<input type="checkbox"/> I can multiply by one-digit numbers.<input type="checkbox"/> I can multiply by two-digit numbers.<input type="checkbox"/> I can use multiplication to convert measurements.<input type="checkbox"/> I can divide three and four-digit numbers.<input type="checkbox"/> I can find perimeter and area.
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Course Name Grade 4 Math

Unit Title Unit 5 Fractions, Decimals, and Measurement: Addition, Subtraction, and Multiplication

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards	Transfer	
<p>CC.2.1: Numbers and Operations</p> <p>CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering.</p> <p>CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g, 19/100).</p>	<p><i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> compare, add, subtract, multiply fractions, decimals, and solve problems involving measurements, time, and money. 	
	Meaning	
	<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Fractions are numbers that work like whole numbers. Knowing about whole numbers will help students add, subtract, multiply, and compare fractions. <input type="checkbox"/> Students can use what they know about whole numbers to show, build, and take apart fractions to solve problems. <input type="checkbox"/> Students can also use what they know about fractions to write and compare decimals. 	<p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> How do you know when fractions are equivalent? <input type="checkbox"/> How do you use models to show two fractions are equivalent? <input type="checkbox"/> How can you multiply or divide to find equivalent fractions? <input type="checkbox"/> How do you compare fractions with different numerators and denominators? <input type="checkbox"/> What are the strategies to compare fractions? <input type="checkbox"/> How can parts of whole be used to explain how to add fractions?

CC.2.4: Measurement, Data and Probability

CC.2.4.4.A.1

Solve problems involving measurement and conversions from a larger unit to a smaller unit.

CC.2.4.4.A.2

Translate information from one type of data display to another.

CC.2.4.4.A.4

Represent and interpret data involving fractions using information provided in a line plot.

- How can you use taking away parts of a whole to subtract fractions?
- What models can you use to add or subtract fractions?
- How do you add or subtract fractions with the same denominator?
- How do you write a fraction as a sum in more than one way?
- How do you write a fraction greater than one as a mixed number?
- How do you write a mixed number as a fraction?
- How do you add or subtract mixed numbers with the same denominator?
- How do you make a line plot to show measurements in fractions of a unit?
- How do you use a fraction from a line plot to solve addition and subtraction problems?
- What does it mean to multiply a fraction by a whole number?
- How do you use models to multiply a fraction by a whole number?
- How do you solve word problems by multiplying a fraction by a whole number?
- How do you write a fraction with a denominator of ten as an

		<p>equivalent fraction as a denominator of one hundred?</p> <ul style="list-style-type: none"> <input type="checkbox"/> How do you write a fraction with a denominator of ten or one hundred as a decimal? <input type="checkbox"/> How do you write a decimal as a fraction with a denominator of ten or one hundred? <input type="checkbox"/> How do you compare decimals? <input type="checkbox"/> What strategies can you use to compare decimals? <input type="checkbox"/> How do you solve word problems about time and money? <input type="checkbox"/> How do you solve word problems about length, liquid volume, mass or weight?
Acquisition		
	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I have an understanding of fractions. <input type="checkbox"/> I have an understanding of operations on whole numbers. <input type="checkbox"/> I understand decimal notation for fractions. 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> I can extend the understanding of fractions to show equivalence and ordering. <input type="checkbox"/> I can find equivalencies and compare fractions. <input type="checkbox"/> I can build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. <input type="checkbox"/> I can solve problems involving fractions and whole numbers (straight computation or word problems).

		<ul style="list-style-type: none">❑ I can translate information from one type of data display to another.❑ I can represent and interpret data.❑ I can organize, display, and answer questions based on data.❑ I can represent and interpret data involving fractions using information provided in a line plot.❑ I can connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g, 19/100).❑ I can use operations to solve problems involving decimals, including converting between fractions and decimals (may include word problems).❑ I can solve problems involving measurement and conversions from a larger unit to a smaller unit.❑ I can solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.
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