5th Grade Curriculum Map 2017-18

MONTH	UNIT/ CONTENT	CORE GOALS/SKILLS	STANDARDS WRITTEN ASSESSMENTS	ROUTINES RESOURCES	VOCABULARY

September
 	
Chapter 1
 	
10 days
	NUMBERS AND OPERATIONS IN BASE TEN
	
	WHOLE NUMBERS
		BIG IDEA: Whole numbers can be written in different ways. Numbers an e compared and rounded, according to their place value.
		
		Count by ten thousands and hundred thousands to 10,000,000.
		Use place-value charts to show numbers to 10,000,000.
		Read and write numbers to 10,000,000 in standard form and in word form.
		
		Identify the place value of any digit n numbers to 10,000,000.
		Read and write numbers to 10,000,000 in expanded form.
		
		Compare and order numbers to 10,000,000.
		Identify and complete a number pattern.
		Find a rule for a number pattern.
		
		Round numbers to the nearest thousand.
		Locate numbers on a number line.
		Use rounding to estimate or check sums, differences, and products.
		Use related multiplication facts to estimate quotients.
		
		Thinking Skills:
		    Comparing
		    Identifying patterns and relationships
		
		 Problem Solving Skills:
		    Look for patterns
		    Use guess and check
			CC.2.15.B.1 Apply place-value concepts to show understanding and rounding as they pertain to whole numbers and decimals.
			
			CC.K-12.MP.1 Solve problems and persevere in solving them
			
			CC.K-12.MP.2 Reason abstractly and quantitatively
			
			CC.K-12.MP.6 Attend to precision
			
			CC.K-12.MP.8 Look for and express regularity in repeated reasoning
			
			Math in Focus Chapter 1 Assessment
			
			C Day Fact Fluency checks
				Morning Meeting
				
				Warm Up/ Number Talks
				
				QUICK TABLES (ALEKS online program)
				
				Math in Focus Textbook 2015 Houghton Mifflin Harcourt
					hundred thousand
					word form
					standard form
					periods
					million
					
					place
					value
					expanded form
					
					greater than (>)
					less than (<)
					
					round estimate
					front-end estimation with adjustment
					compatible numbers

Chapter 2 **13 days**	WHOLE NUMBER MULTIPLICATION AND DIVISION	**BIG IDEAS:** Patterns can be used to help you multiply and divide numbers. Numeric expressions can be simplified using the order of operations. Multiplication and division can be used to solve real-world problems.	CC.2.15.B.1 Apply place-value concepts to show understanding and rounding as they pertain to whole numbers and decimals.	Morning Meeting	product factor exponent base square cube
		Use a calculator to add, subtract, multiply, and divide whole numbers.	CC.2.1.5.B.2 Extend an understanding of operations with whole numbers to perform operations including decimals.	Warm Up/ Number Talks QUICK TABLES (ALEKS online program)	quotient dividend divisor
		Multiply numbers by 10, 100, or 1,000 using patterns. Multiply numbers up to 4-digits by multiples of 10, 100, or 1,000. Use rounding to estimate products.	CC.2.2.5.A.1 Interpret and evaluate numerical expressions using order of operations.	*Math in Focus* Textbook 2015 Houghton Mifflin Harcourt	numeric expression order of operations
		Multiply whole numbers by 10 squared and 10 cubed.	CC.K-12.MP.1 Solve problems and persevere in solving them		
		Multiply a 2-, 3- or 4-digit numer by a 2 –digit number.	CC.K-12.MP.2 Reason abstractly and quantitatively		
		Divide numbers by 10, 100, or 1,000 using patterns. Divide numbers up to 4-digits by multiples of 10, 100, or 1,000. Use rounding and related multiplication facts to estimate quotients.	CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others. CC.K-12.MP.4 Model with mathematics CC.K-12.MP.5 Use appropriate tools strategically		
		Divide a 2-, 3-, or 4-digit number by a 2-digit number.	CC.K-12.MP.6 Attend to precision CC.K-12.MP.7 Look for and make use of structure		
		Use order of operations to simplify a numeric expression. Evaluate numerical expressions with parentheses, brackets, and braces.	CC.K-12.MP.8 Look for and express regularity in repeated reasoning		
		Use efficient strategies to solve multi-step problems involving multiplication and division. Express and interpret a product or quotient appropriately.	*Math in Focus* Chapter 2 Assessment C Day Fact Fluency checks		

5/22/17

		Thinking Skill:
		    Identifying patterns and relationships
		
		Problem Solving Strategy:
		    Look for patterns
		    Restate the problem			

October Chapter 3 **8 days**	FRACTIONS AND MIXED NUMBERS	**BIG IDEA:** Add and subtract unlike fractions and mixed numbers by rewriting them with like denominators. Add two unlike fractions where one denominator is not a multiple of the other. Estimate sums of fractions. Subtract two unlike fractions where one denominator is not a multiple of the other. Estimate the differences between fractions. Understand and apply the relationships between fractions, mixed numbers, and division expressions. Express fractions, division, expressions, and mixed numbers as decimals. Add mixed numbers with or without renaming. Estimate sums of mixed numbers. Subtract mixed numbers with or without renaming. Estimate differences between mixed numbers. Solve real-world problems involving fractions and mixed numbers. **Thinking Skills:** Analyzing parts and whole	CC.2.1.5.C.1 Use the understanding of equivalency to add and subtract fractions. CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions. CC.K-12.MP.1 Solve problems and persevere in solving them CC.K-12.MP.2 Reason abstractly and quantitatively CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others. CC.K-12.MP.4 Model with mathematics CC.K-12.MP.6 Attend to precision CC.K-12.MP.7 Look for and make use of structure *Math in Focus* Chapter 3 Assessment C Day Fact Fluency checks	Morning Meeting Warm Up/ Number Talks QUICK TABLES (ALEKS online program) *Math in Focus* Textbook 2015 Houghton Mifflin Harcourt	multiple least common multiple least common denominator equivalent fractions benchmarks division expression mixed number

		Problem Solving Strategies:
		    Use a model
		    Use before-and-after concepts			

November
 	
Chapter 4
 	
12 days
	MULTIPLYING AND DIVIDING FRACTIONS AND MIXED NUMBERS	**BIG IDEA**: Whole numbers, fractions, and mixed numbers can be multiplied or divided in any combination.
		
		Multiply proper fractions.
		
		Solve real-world problems involving multiplication of proper fractions.
		
		Multiply improper fractions by proper fractions.
		
		Multiply a mixed number by a whole number.
		Compare the size of a product to the size of its factors.
		Multiply whole numbers by proper fractions.
		
		Solve real-world problems involving multiplication of whole numbers and mixed numbers.
		
		Divide fraction by a whole number.
		Divide a whole number by a unit fraction.
		
		Solve real-world problems involving multiplication and division in fractions.
		Solve real-world problems involving division of a whole number by a unit fraction.
		
		Thinking Skill:
		    Identifying patterns and relationships.
		
		Problem Solving Strategy:
		    Look for a pattern
		    Use a model
			CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
			
			CC.K-12.MP.1 Solve problems and persevere in solving them
			
			CC.K-12.MP.2 Reason abstractly and quantitatively
			
			CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others.
			
			CC.K-12.MP.4 Model with mathematics
			
			CC.K-12.MP.6 Attend to precision
			
			CC.K-12.MP.7 Look for and make use of structure
			
			CC.K-12.MP.8 Look for and express regularity in repeated reasoning
			
			Math in Focus Chapter 4 Assessment
			
			C Day Fact Fluency checks
				Morning Meeting
				
				Warm Up/ Number Talks
				
				QUICK TABLES (ALEKS online program)
				
				Math in Focus Textbook 2015 Houghton Mifflin Harcourt
					product
					common factor
					proper fraction
					improper fraction
					mixed number
					
					reciprocal

Chapter 5
 	
11 days
	OPERATIONS AND ALGEBRAIC THINKING
	
	ALGEBRA
		BIG IDEA:
		Algebraic thinking can be used to describe situations and solve real-world problems.
		
		Identify and extend number patterns.
		Identify the relationship between two sets of numbers.
		
		Recognize, write, and evaluate simple algebraic expressions in one variable.
		
		Simply algebraic expressions in one variable.
		
		Write and evaluate inequalities.
		Solve simple equations.
		
		Solve real-world problems involving algebraic expressions.
		
		Thinking Skill:
		  Sequencing
		
		Problem Solving Strategy:
		  Make a systematic list
			CC.2.2.5.A.1 Interpret and evaluate numerical expressions using order of operations.
			
			CC.2.2.5.A.4 Analyze patterns and relationships using two rules.
			
			CC.K-12.MP.1 Solve problems and persevere in solving them
			
			CC.K-12.MP.2 Reason abstractly and quantitatively
			
			CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others
			
			CC.K-12.MP.4 Model with mathematics
			
			CC.K-12.MP.6 Attend to precision
			
			CC.K-12.MP.7 Look for and make use of structure.
			
			CC.K-12.MP.8 Look for and express regularity in repeated reasoning
			
			Math in Focus Chapter 5 Assessment
			
			C Day Fact Fluency checks
				Morning Meeting
				
				Warm Up/ Number Talks
				
				QUICK TABLES (ALEKS online program)
				
				Math in Focus Textbook 2015 Houghton Mifflin Harcourt
					number pattern
					term
					variable
					numeriacal expression
					evaluate algebraic expression
					simplify
					like terms
					inequality
					equation
					solve
					true
					equality properties

December Chapter 6 **7 days**	**NUMBERS AND OPERATIONS IN BASE TEN** AREA	**BIG IDEA:** Base and height are measurements that are used to find the area of a triangle. Find the area of a rectangle with fractional side lengths by counting square units, and by using a formula. Idenitfy the base given the height of a triangle.	CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions. . CC.K-12.MP.1 Solve problems and persevere in solving them. CC.K-12.MP.2 Reason abstractly and quantitatively.	Morning Meeting Warm Up/ Number Talks QUICK TABLES (ALEKS online	vertex side angle base height perpendicular area right triangle

		Identify the height given the base of a triangle.
		
		Find the area of a triangle given its base and its height.
		
		Thinking Skills:
		  Spatial visualization
		
		Problem Solving Strategies:
		  Look for patterns
			CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others.
			
			CC.K-12.MP.4 Model with mathematics.
			
			CC.K-12.MP.6 Attend to precision.
			
			CC.K-12.MP.7 Look for and make use of structure
			
			CC.K-12.MP.8 Look for and express regularity in repeated reasoning
			
			Math in Focus Chapter 6 Assessment
			
			C Day Fact Fluency checks
				program)
				
				Math in Focus Textbook 2015 Houghton Mifflin Harcourt	

Mid-Dec. – Early Jan.. Chapter 7 **10 days**	RATIO	**BIG IDEA**: Two numbers can be compared by subtraction. To or more numbers or quantities can also be compared by division and the comparison expressed as a ratio. read and write ratios. Find equivalent ratios. Solve real-world problems involving ratios. Interpret ratios given in fraction form. Write ratios in fraction form to find how many times as large as one number another number is. Read and write ratios with three quantities. Express equivalent ratios with three quantities. Solve real-world problems involving ratios and fractions.	CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions. CC.K-12.MP.1 Solve problems and persevere in solving them CC.K-12.MP.2 Reason abstractly and quantitatively CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others. CC.K-12.MP.4 Model with mathematics CC.K-12.MP.6 Attend to precision. *Math in Focus* Chapter 7 Assessment C Day Fact Fluency checks	Morning Meeting Warm Up/ Number Talks QUICK TABLES (ALEKS online program) *Math in Focus* Textbook 2015 Houghton Mifflin Harcourt	ratio term equivalent ratios simplest form greatest common factor

		Solve real-world problems involving ratios with three quantities.
		
		Thinking Skills:
		    Comparing
		
		Problem Solving Strategies:
		    Make a systematic list			

January
Chapter 8
8 days
	DECIMALS	**BIG IDEA:** Thousandths can be represented with three decimal places or as fractions.
		
		Read and write thousandths in decimal and fractional forms.
		Represent and interpret thousandths in models or in place-value charts.
		Write a fraction with denominator 1,000 as a decimal.
		
		Compare and order decimals to 3 decimal places.
		Round decimals to the nearest hundredth.
		
		Rewrite decimals as fractions and mixed numbers in simplest form.
		
		Thinking Skill:
		    Identifying relationships
		
		Problem Solving Strategy:
		    Make a systematic list
		    Use a diagram
			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.
			
			CC.2.1.5.B.2 Extend understanding of operations with whole numbers to perform operations including decimals.
			
			CC.K-12.MP.1 Solve problems and persevere in solving them
			
			CC.K-12.MP.6 Attend to precision.
			
			CC.K-12.MP.8 Look for and express regularity in repeated reasoning
			
			Math in Focus Chapter 8 Assessment
			
			C-Day Fact Fluency check
				Morning Meeting
				
				Warm Up/ Number Talks
				
				QUICK TABLES (ALEKS online program)
				
				Math in Focus Textbook 2015 Houghton Mifflin Harcourt
					thousandth equivalent

| Jan. – early Feb.

Chapter 9

10 days | MULTIPLYING AND DIVIDING DECIMALS | **BIG IDEA**: Decimals can be multiplied and divided in the same way as whole numbers.

Multiply tenths and hundredths by a 1-digit whole number.

Multiply tenths and hundredths by 10, 100, or 1,000.
Multiply tenths and hundredths by powers of 10.
Multiply tenths and hundredths by multiples of 10, 100, and 1,000.

Divide tenths and hundredths by a 1-digit whole number
Round quotients to the nearest tenth or hundredth.

Divide tenths and hundredths by 10, 100, or 1,000.
Divide tenths and hundredths by multiples of 10, 100, or 1,000.

Estimate decimal sums, differences, products, and quotients.

Convert from a larger metric unit to a smaller metric unit.
Convert from a smaller metric unit to a larger metric unit.

Solve real-world problems involving decimals.

Thinking Skill:
  Logical reasoning

Problem Solving Strategy:
  Use guess and check
  Make a systematic list | 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.

CC.2.1.5.B.2 Extend understanding of operations with whole numbers to perform operations including decimals.

CC.K-12.MP.1 Solve problems and persevere in solving them

CC.K-12.MP.2 Reason abstractly and quantitatively

CC.K-12.MP.4 Model with mathematics

CC.K-12.MP.5 Use appropriate tools strategically

CC.K-12.MP.6 Attend to precision

CC.K-12.MP.7 Look for and make use of structure

Math in Focus Chapter 9 Assessment

C-Day Fact Fluency Checks | Morning Meeting

Warm Up/ Number Talks

QUICK TABLES (ALEKS online program)

Math in Focus Textbook 2015 Houghton Mifflin Harcourt | dividend per unit

estimate divisor |

February
 	
Chapter 10
 	
10 days
	PERCENTS	**BIG IDEA**: Percent is another way of expressing a part of a whole. Percent means 'out of 100'.
		
		Relate and compare percents, decimals, and fractions.
		
		Express fractions as percents.
		
		Use different ways to find the number represented by a percent.
		
		Solve real-world problems involving percents.
		
		Thinking Skills:
		   Identifying relationships
		
		Problem Solving Strategy:
		   Use a model
			CC.K-12.MP.1 Solve problems and persevere in solving them
			
			CC.K-12.MP.4 Model with mathematics.
			
			CC.K-12.MP.6 Attend to precision.
			
			Math in Focus Chapter 10 Assessment
			
			C-Day Fact Fluency Check
				Morning Meeting
				
				Warm Up/ Number Talks
				
				QUICK TABLES (ALEKS online program)
				
				Math in Focus Textbook 2015 Houghton Mifflin Harcourt
					percent
					
					sales tax
					meals tax
					discount
					interest

March Chapter 11 **13 days**	GRAPHS AND PROBABILITY	**BIG IDEA**: Displaying data in a graph highlights some features of the data. Probability measures the likelihood of an event occurring. Make a line plot to represent data given in fractions of a unit. Use fractions and their operations to solve problems using data. Make and interpret a double bar graph. Read points on a coordinate grid. Plot points on a coordinate grid. Graph an equation. Compare two sets of data using tables, graphs, and equations. Generate, graph, and compare two number patterns.	CC.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. CC.2.2.5.A.4 Analyze patterns and relationships using two rules. CC.2.4.5.A.4 Solve problems involving computation of fractions using information provided in a line plot. CC.K-12.MP.1 Solve problems and persevere in solving them CC.K-12.MP.2 Reason abstractly and quantitatively CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others.	Morning Meeting Warm Up/ Number Talks QUICK TABLES (ALEKS online program) *Math in Focus* Textbook 2015 Houghton Mifflin Harcourt	double bar graph key coordinate grid x-axis y-axis coordinate plane coordinats ordered pair x-coordinate y-coordinate origin straight line graph equation combinations organized list tree diagram favorable outcome theoretical probability

List and count all possible combinations. Draw a tree diagram to show all possible combinations. Use multiplication to find the number of combinations.
 	
Find the experimental probability o an outcome.
Compare the results of an experiment with the theoretical proability.
 	
Thinking Skills:
   Comparing
 	
Problem Solving Strategies:
   Use a diagram
	CC.K-12.MP.4
	Model with mathematics
	
	CC.K-12.MP.6 Attend to precision.
	
	CC.K-12.MP.8 Look for and express regularity in repeated reasoning
	
	Math in Focus Chapter 11 Assessment
	
	C-Day Fact Fluency Check
			experimental probability

April
 	
Chapter 12
 	
7 days
 	
GEOMETRY
 	
ANGLES
	BIG IDEAS: The sum of angle measure on a line is 180°. The sum of an angle measure at a point is 360°. Vertical angles have equal measures.
	
	Understand and apply the property that the sum of angle measures on a line is 180°.
	
	Understand and apply the property that the sum of angle measures at a point is 360°.
	
	Understand and apply the property that vertical angles have equal measures.
	
	Thinking Skill:
	   Deduction
	
	Problem Solving Strategies:
	   Use a diagram
		CC.K-12.MP.1 Make sense of problems and persevere in solving them.
		
		CC.K-12.MP.2 Reason abstractly and quantitatively.
		
		CC.K-12.MP.4 Model with mathematics.
		
		CC.K-12.MP.5 Use appropriate tools strategically.
		
		CC.K-12.MP.6 Attend to precision.
		
		Math in Focus Chapter 12 Assessment
		
		C Day Fact Fluency Check
			Morning Meeting
			
			Warm Up/
			 Number Talks
			
			QUICK TABLES (ALEKS online program)
			
			Math in Focus Textbook 2015 Houghton Mifflin Harcourt
				angles on a line
				angles on a point
				intersecting lines
				vertical angles

May Chapter 13	PROPERTIES OF TRIANGLES	**BIG IDEA:** Properties of geometric figures state relationships among angles or sides of the figures. Triangles and four-sided figures have their own special properties.	CC.2.3.5.A.2 Classify two-dimensional figures into categories based on an understanding of their properties.	Morning Meeting	equilateral triangle isosceles triangle scalene triangle

14 days	AND FOUR-SIDED FIGURES	Classify triangles by their side lengths and angle measures. Understand and apply the property that the sum of the angle measure of a triangle is 180°. Understand and apply the properties of right, isosceles, and equilateral triangles. Understand that the sum of the length of any two sides of a triangle is greater than the length of the third side. Understand and apply the properties of parallelogram, rhombus, and trapezoid. **Thinking Skills:** Spatial visualization **Problem Solving Strategy:** Simplify the problem	CC.K-12.MP.1 Make sense of problems and persevere in solving them. CC.K-12.MP.2 Reason abstractly and quantitatively. CC.K-12.MP.3 Construct viable arguments and critique the reasoning of others. CC.K-12.MP.4 Model with mathematics CC.K-12.MP.6 Attend to precision. *Math in Focus* Chapter 13 Assessment C- Day Fact Fluency Check	Warm Up/ Number Talks QUICK TABLES (ALEKS online program) *Math in Focus* Textbook 2015 Houghton Mifflin Harcourt	right triangle obtuse triangle acute triangle
May- June Chapter 14 **15 days**	**MEASUREMENT AND DATA** SURFACE AREA AND VOLUME	**BIG IDEAS**: The volume of cubes and rectangular prisms can be expressed as the number of cubic units they contain. The surface area of a solid is the sum of the areas of all its faces. Build solids using unit cubes. Determine the number of unit cubes in an irregular solid Draw a cube and a rectangular prism on dot paper Complete a partially drawn cue and rectangular prism on dot paper Identify and classify prisms and pyramids. Identify the solid figure that can be formed from a net.	CC.2.1.5.B.2 Extend an understanding of operations with whole numbers to perform operations including decimals. CC.2.4.5.A.1 Solve problems using conversions within a given measurement system. CC.2.4.5.A.5 Apply concepts of volume to solve problems and relate volume to multiplication and to addition. CC.K-12.MP.1 Make sense of problems and persevere in solving them. CC.K-12.MP.2 Reason abstractly and quantitatively.	Morning Meeting Warm Up/ Number Talks QUICK TABLES (ALEKS online program) *Math in Focus* Textbook 2015 Houghton Mifflin Harcourt	unit cube face edge rectangular prism prism base vertex net square pyramid triangular pyramid pyramid triangular prism surface area

| | | | Find the surface area of a prism by adding the areas of all faces.

Find the volumes of cubes and rectangular prisms.
Find the volume of a solid constructed from unit cubes.
Compare volumes of cubes, rectangular prisms, and other objects.

Use a formula to find the volume of a rectangular prism.
Find the capacity of a rectangular container.
Solve word problems involving volume of rectangular prisms and liquids.

Find the volume of a solid figure composed of two rectangular prisms.
Solve real-world problems on the volume of a composite solid.

Thinking Skills
   Spatial visualization

Problem Solving Strategy
   Look for patterns
   Make a systematic list
   Act it out | CC.K-12.MP.4 Model with mathematics

CC.K-12.MP.6   Attend to precision.
CC.K-12.MP.8 Look for and express regularity in repeated reasoning

Math in Focus Chapter 14 Assessment

C-Day Fact Fluency Check | | |