Franklin Math Scope and Sequence 2020 Staff - Draft Copy

	Kindergarten	1st grade	2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8th Grade
Counting and Cardinality									
	Know number names and the count sequence								
	Count to tell the number objects								
	Compare numbers								
Operations and Algebraic Thinking									
	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from	Represent and solve problems involving addition and subtraction	Represent and solve problems involving addition and subtraction	Represent and solve problems involving multiplication and division	Use the four operations with whole numbers to solve problems	Write and interpret numerical expressions			
		Understand and apply properties of operations and the relationship between addition and subtraction	Add and subtract within 20	Understand properties of multiplication and the relationship bewteen multiplication and division	Gain familiarity with factors and multiples	Analyze patterns and relationships			
		Add and subtract within 20	Work with equal groups of objects to gain foundations for multiplication	Multiply and divide within 100	Generate and analyze patterns				
		Work with addition and subtraction equations		Solve problems involving the four operations, and identify and explain patterns in arithmetic					
Number and Opeartions in Base Ten/The Number System									

	Kindergarten	1st grade	2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8th Grade
	Work with numbers 11-19 to gain foundations for place value	Extend the counting sequence				Understand the place value system	Compute fluently with multi-digit numbers and find commmon factors and multiples	Know that there are numers that are not rational, and approximate them by rational numbers	
		Understand place value	Understand place value		Generalize place value understanding for multi-digit whole numbers	Perform operations with multi-digit whole numbers and with decimals to hundredths	Apply and exend previous understandings of numbers to the system of rational numbers		
		Use place value understanding and properties to add and subtract	Use place value understanding and properties of operations to add and subtract	Use place value understanding and properties of operations to perform multi-digit arithmetic	Use place value understanding and properties of operations to perform multi-digit arithmetic				
Measurement and Data									
	Describe and compare measureable attributes	Measure lengths indirectly and by iterating length units	Measure and estimate lengths in standard units	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit	Convert like measurement units within a given measurement system.			
	Classify objects and count the number of objects in categories	Tell and write time	Relate addition and subtraction to length	Represent and interpret data	Represent and interpret data	Represent and interpret data			

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		Represent and interpret data	Work with time and money	Geometric measurement: understand concepts of area and relate to multiplication and to addition	Geometric measurement: understand concepts of angle and measure angles	Geometric measurement: understand conepts of volume and relate volume to multiplication and to addition			
			Represent and interpret data	Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures					
Geometery									
	Identify and describe shapes	Reason with shapes and their attributes	Reason with shapes and their attributes	Reason with shapes and thier attributes	Draw and identify lines and angles, and classrify shapes by properties of their lines and angles	Graph points on the coordinate plane to solve real world and mathematical problems	Solve real world and mathematical problems involving area, surface area, and volume	Draw, construct and describe geometical figures and describe the relationship between them	Understand congruence and similarity using physical models, transparencies, or geometry software
	Analyze, compare, create, and compose shapes					Classify two-dimensional figures into categories based on their properties		Solve real-world and mathematical problems involving angle measure, area, surface area, and volume	Understand and apply the Pythagorean Theorem

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									Solve real-world and mathematical problems involving volume of cylinders, cones and spheres
Number and Operations-Fractions									
				Develop understanding of fractions as numbers	Extend understanding of fraction equivalence and ordering	Use equivalent fractions as a strategy to add and subtract fractions	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers	
					Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers	Apply and extend previous understandings of multiplication and division to multiply and divide fractions			
					Understand decimal notation for fractions, and compare decimal fractions				
Ratios and Proportional Relationships									

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							Understand ratio concepts and use ratio reasoning to solve problems	Analyze proportional relationships and use them to solve real-world and mathematical problems	
Expressions and Equations									
							Apply and extend previous understandings of arithmetic to algebraic expressions	Use properties of operations to generate equivalent expressions	Work with radicals and integer exponents
							Reason about and solve one-variable equations and inequalities	Solve real-world and mathematical problems using numerical and algebraic expressions and equations	Understand the connections between proportional relationships, lines, and linear equations
							Represent and analyze quantitative relationships between dependent and independent variables		Analyze and solve linear equations and pairs of simultaneous linear equations
Statistics and Probablilty									

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							Develop understanding of statistical variability	Use random sampling to draw inferences about a population	Investigate patterns of associate in bivariate data
							Summarize and describe distributions	Draw informal comparative inferences about two populations	
								Investigate chance processes and develop, use, and evaluate probability models	
Functions									
								Define, evaluate, and compare functions	
								Use functions to model relationships between quantities	