

First Grade Math Curriculum Calendar

Big Idea 1: Develop understandings of addition and subtraction strategies for basic addition facts and related subtraction facts.			Pacing: 1 st Nine Weeks	
Concepts/ Content	Addition and Subtraction Facts			
Week(s)	NGSSS Complexity Rating	Benchmark	Remarks/Examples	Vocabulary
1 – 2 Addition Concepts	MA.1.A.1.1 <i>moderate</i>	Model addition and subtraction situations using the concepts of “part-whole,” “adding to,” “taking away from,” “comparing,” and “missing addends.”	Teachers should ensure that students focus on conceptual understanding by using manipulatives, words, or pictures, and limiting the use of formal algorithms.	
	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	
3 – 4 Subtraction Concepts	MA.1.A.1.3 <i>moderate</i>	Create and use increasingly sophisticated strategies, and use properties such as Commutative, Associative and Additive Identity, to add whole numbers.	Ex. $2 + 3 = 5$ and $3 + 2 = 5$ (Comm) Ex. $2 + (3 + 1)$ and $(2 + 3) + 1 = 6$ (Associative) Ex. $7 + 8 = 7 + 7 + 1$ (doubles + 1) Ex. $9 + 4 = 10 + 3$ (using 10 as a friendly number to add & sub)	
	MA.1.A.1.4 <i>high</i>	Use counting strategies, number patterns, and models as a means for solving basic add and sub fact prob.	Decomposing considered key for understanding the add/sub relationships. Teachers should include one-step word problems. Strategies include: doubles, doubles + 1, doubles – 1, Grouping 10s, Counting on, and Counting back	

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Big Idea 1: Develop understandings of addition and subtraction strategies for basic addition facts and related subtraction facts.		Pacing: 1 st & 2 nd Nine Weeks		
Concepts/ Content	Addition and Subtraction Facts			
Week(s)	NGSSS Complexity Rating	Benchmark	Remarks/Examples	Vocabulary
5 - 6 Addition Strategies to 18	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	
7 - 8 Subtraction Strategies to 18	MA.1.A.1.3 <i>moderate</i>	Create and use increasingly sophisticated strategies, and use properties such as Commutative, Associative and Additive Identity, to add whole numbers.	Ex. $2 + 3 = 5$ and $3 + 2 = 5$ (Comm) Ex. $2 + (3 + 1)$ and $(2 + 3) + 1 = 6$ (Associative) Ex. $7 + 8 = 7 + 7 + 1$ (doubles + 1) Ex. $9 + 4 = 10 + 3$ (using 10 as a friendly number to add & sub)	
9 - 12 Addition & Subtraction Relationships	MA.1.A.1.4 <i>high</i>	Use counting strategies, number patterns, and models as a means for solving basic add and sub fact prob.	Decomposing considered key for understanding the add/sub relationships. Teachers should include one-step word problems. Strategies include: doubles, doubles + 1, doubles - 1, Grouping 10s, Counting on, and Counting back	
	MA.1.A.1.2 <i>moderate</i>	Identify, describe, and apply add and sub as inverse operations.	Ex. $4 + 2 = 6$ and $6 - 2 = 4$ Ex. List three other facts using add or sub that are related to $3 + 5 = 8$. Ex. I have 8 marbles. Some are red. Some are blue. How many of each could I have? How many are red? Blue? Find as many combinations as you can.	

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Big Idea 2: Develop an understanding of whole number relationships, including grouping by tens and ones.				Pacing: 2nd Nine Weeks
Concepts/ Content	Place Value			
Week(s)	NGSSS Complexity Rating	Benchmark	Remarks/Examples	Vocabulary
13 – 15 Read & Represent Numbers	MA.1.A.2.2 <i>low</i>	Represent two digit numbers in terms of tens and ones.	Ex. How many tens and how many ones are in fifty-six? Explain your answer.	
	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	
16 – 18 Compare & Order Numbers	MA.1.A.2.3 <i>moderate</i>	Order counting numbers, compare their relative magnitudes, and represent numbers on a number line.	Show position of given whole numbers on the number line. Given a starting number and ending number on the number line, students decide whether to go left or right to get from the starting number to the ending number.	greater greatest smaller smallest
	MA.1.A.2.1 <i>moderate</i>	Compare and order whole numbers at least to 100.	Ex. Is 86 larger than 68? Ex. State whether 29 is larger than 38 or smaller than 38? Ex. Name a number that comes between 70 and 75.	
	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	

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Supporting Idea 4: Algebra			Pacing: 3 rd Nine Weeks	
Concepts/ Content	Place Value			
Week(s)	NGSSS Complexity Rating	Benchmark	Remarks/Examples	Vocabulary
19 - 20 Number Patterns	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	
	MA.1.A.4.1 <i>high</i>	Extend repeating and growing patterns, fill in missing terms, and justify reasoning.	The student gains an understanding of skip counting. Ex. What number comes next in this pattern (3, 6, 9, 12, 15, ___)? Why? Ex. What shape is missing in this pattern? Explain your answer.	
Supporting Idea 6: Number and Operations				
21 – 24 Uses Tens & Ones to Add and Subtract	MA.1.A.6.1 <i>high</i>	Use mathematical reasoning and beginning understanding of tens and ones, including use of invented strategies, to solve two-digit addition and subtraction problems.	Invented and standard algorithms should be explored to help students reason about joining, separating and comparing numbers, and about the relationship between tens and ones. Ex. Adding 27 and 15, stus. Might reason that 27 is 20 + 7 and that 15 is 10 + 5. In determining the result, they combine 20 + 10 = 30 and 7 + 5 = 12. The final answer involves the simpler addition problem 30 + 12 is 42.	
	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	

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Big Idea 3: Compose and Decompose two-dimensional and three-dimensional geometric shapes.		Pacing: 3 rd Nine Weeks		
Concepts/ Content	Geometry, Patterns, and Measurement			
Week(s)	NGSSS Complexity Rating	Benchmark	Remarks/Examples	Vocabulary
25 - 28 Geometry	MA.1.G.3.1 <i>moderate</i>	Use appropriate vocabulary to compare shapes according to attributes and properties such as number and lengths of sides and number of vertices.	Activities should include classification of shapes.	cone cube curved surface cylinder flat surface
	MA.1.G.3.2 <i>high</i>	Compose and decompose plane and solid figures, including making predictions about them, to build an understanding of part-whole relationships and properties of shapes.	Ex of composing: The student puts two congruent isosceles triangles together to make a rhombus. Students can decorate necklaces by composing triangles (or other shapes) and find number of triangles or rhombuses needed for different necklaces with different lengths. Ex of decomposing: The student notices that a regular hexagon can be decomposed into two trapezoids or six triangles.	rectangular prism sphere square pyramid edge face vertex side hexagon rhombus trapezoid
	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	

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Supporting Idea 4: Algebra				Pacing: 4 th Nine Weeks
Concepts/ Content	Geometry, Patterns, and Measurement			
Week(s)	NGSSS Complexity Rating	Benchmark	Remarks/Examples	Vocabulary
29 – 30 Patterns	MA.1.A.6.2 <i>high</i>	Solve routine and non-routine problems by acting them out, using manipulatives, and drawing diagrams.	Students should be able to explain and justify their reasoning.	pattern unit repeating pattern growing pattern
	MA.1.A.4.1 <i>high</i>	Extend repeating and growing patterns, fill in missing terms, and justify reasoning.	The student gains an understanding of skip counting. Ex. What number comes next in this pattern (3, 6, 9, 12, 15, ___)? Why? Ex. What shape is missing in this pattern? Explain your answer.	
Supporting Idea 5: Geometry and Measurement				
31 – 33 Length, Weight, & Capacity	MA.1.G.5.2 <i>moderate</i>	Compare and order objects according to descriptors of length, weight, & capacity.	Activities should include the use of simple approximations to measure lengths and weights.	short, shorter shortest long, longer longest tall, taller tallest high, higher highest same, compare heavier, lighter balance capacity less, more least, most
	MA.1.G.5.1 <i>moderate</i>	Measure using iterations of a unit and count the unit measures by grouping units.	Measuring by using iterations involves multiple copies of a unit placed end-to-end and then counting the unit measures by grouping units. Use manipulatives such as cubes, rods, or other objects in the counting process.	
	MA.1.A.6.2 <i>high</i>	Extend repeating and growing patterns, fill in missing terms, and justify reasoning.	Students should be able to explain and justify their reasoning.	