Mathematical Thinking and Reasoning Standards		Mathematical Thinking and Reasoning Standards	
Number Sense and Operations		**MA.K12.MTR.1.1**	**Actively participate in effortful learning both individually and collectively.**
			Mathematicians who participate in effortful learning both individually and with others: • Analyze the problem in a way that makes sense given the task. • Ask questions that will help with solving the task. • Build perseverance by modifying methods as needed while solving a challenging task. • Stay engaged and maintain a positive mindset when working to solve tasks. • Help and support each other when attempting a new method or approach.
Algebraic Reasoning		**MA.K12.MTR.2.1**	**Demonstrate understanding by representing problems in multiple ways.**
			Mathematicians who demonstrate understanding by representing problems in multiple ways: • Build understanding through modeling and using manipulatives. • Represent solutions to problems in multiple ways using objects, drawings, tables, graphs and equations. • Progress from modeling problems with objects and drawings to using algorithms and equations. • Express connections between concepts and representations. • Choose a representation based on the given context or purpose.
Measurement		**MA.K12.MTR.3.1**	**Complete tasks with mathematical fluency.**
			Mathematicians who complete tasks with mathematical fluency: • Select efficient and appropriate methods for solving problems within the given context. • Maintain flexibility and accuracy while performing procedures and mental calculations. • Complete tasks accurately and with confidence. • Adapt procedures to apply them to a new context. • Use feedback to improve efficiency when performing calculations.
Geometric Reasoning		**MA.K12.MTR.4.1**	**Engage in discussions that reflect on the mathematical thinking of self and others.**

			Mathematicians who engage in discussions that reflect on the mathematical thinking of self and others: • Communicate mathematical ideas, vocabulary and methods effectively. • Analyze the mathematical thinking of others. • Compare the efficiency of a method to those expressed by others. • Recognize errors and suggest how to correctly solve the task. • Justify results by explaining methods and processes. • Construct possible arguments based on evidence.
Data Analysis and Probability		**MA.K12.MTR.5.1**	**Use patterns and structure to help understand and connect mathematical concepts.**
			"Mathematicians who use patterns and structure to help understand and connect mathematical concepts: • Focus on relevant details within a problem. • Create plans and procedures to logically order events, steps or ideas to solve problems. • Decompose a complex problem into manageable parts. • Relate previously learned concepts to new concepts. • Look for similarities among problems. • Connect solutions of problems to more complicated large-scale situations."
Fractions		**MA.K12.MTR.6.1**	**Assess the reasonableness of solutions.**
			Mathematicians who assess the reasonableness of solutions: • Estimate to discover possible solutions. • Use benchmark quantities to determine if a solution makes sense. • Check calculations when solving problems. • Verify possible solutions by explaining the methods used. • Evaluate results based on the given context.
Functions		**MA.K12.MTR.7.1**	**Apply mathematics to real-world contexts.**
			Mathematicians who apply mathematics to real-world contexts: • Connect mathematical concepts to everyday experiences. • Use models and methods to understand, represent and solve problems. • Perform investigations to gather data or determine if a method is appropriate. • Redesign models and methods to improve accuracy or efficiency.

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
	Number Sense	***MA.K.NSO.1***	***Develop an understanding for counting using objects in a set.***					
1		MA.K.NSO.1.1	Given a group of up to 20 objects, count the number of objects in that group and represent the number of objects with a written numeral. State the number of objects in a rearrangement of that group without recounting.	**Clarification 1:** Instruction focuses on developing an understanding of cardinality and one-to-one correspondence. **Clarification 2:** Instruction includes counting objects and pictures presented in a line, rectangular array, circle or scattered arrangement. Objects presented in a scattered arrangement are limited to 10. **Clarification 3:** Within this benchmark, the expectation is not to write the number in word form.		MAFS.K.CC.1.1		
1		MA.K.NSO.1.2	Given a number from 0 to 20, count out that many objects.	**Clarification 1:** Instruction includes giving a number verbally or with a written numeral.		MAFS.K.CC.1.2		
1		MA.K.NSO.1.3	Identify positions of objects within a sequence using the words “first,” “second,” “third,” “fourth” or “fifth.”	New to Kindergarten **Clarification 1:** Instruction includes the understanding that rearranging a group of objects does not change the total number of objects but may change the order of an object in that group.				
2		MA.K.NSO.1.4	Compare the number of objects from 0 to 20 in two groups using the terms less than, equal to or greater than.	**Clarification 1:** Instruction focuses on matching, counting and the connection to addition and subtraction. **Clarification 2:** Within this benchmark, the expectation is not to use the relational symbols =, > or <.		MAFS.K.CC.2.4		
	Number Sense	***MA.K.NSO.2***	***Recite number names sequentially within 100 and develop an understanding for place value.***					
1		MA.K.NSO.2.1	Recite the number names to 100 by ones and by tens. Starting at a given number, count forward within 100 and backward within 20.	Counting backward within 20 is new to Kindergarten **Clarification 1:** When counting forward by ones, students are to say the number names in the standard order and understand that each successive number refers to a quantity that is one larger. When counting backward, students are to understand that each succeeding number in the count sequence refers to a quantity that is one less. **Clarification 2:** Within this benchmark, the expectation is to recognize and count to 100 by the end of Kindergarten.				
3		MA.K.NSO.2.2	Represent whole numbers from 10 to 20, using a unit of ten and a group of ones, with objects, drawings and expressions or equations.					

3		MA.K.NSO.2.3	Locate, order and compare numbers from 0 to 20 using the number line and terms less than, equal to or greater than.	Number range is now from 0 to 20 and the use of the number line to compare is new to Kindergarten. **Clarification 1:** Within this benchmark, the expectation is not to use the relational symbols =, > or <. **Clarification 2:** When comparing numbers from 0 to 20, both numbers are plotted on the same number line. **Clarification 3:** When locating numbers on the number line, the expectation includes filling in a missing number by counting from left to right on the number line.				
	Number Sense	***MA.K.NSO.3***	***Develop an understanding of addition and subtraction operations with one- digit whole numbers.***					
3		MA.K.NSO.3.1	Explore addition of two whole numbers from 0 to 10, and related subtraction facts.	**Clarification 1:** Instruction includes objects, fingers, drawings, number lines and equations. **Clarification 2:** Instruction focuses on the connection that addition is "putting together" or "counting on" and that subtraction is "taking apart" or "taking from." Refer to Situations Involving Operations with Numbers (Appendix A). **Clarification 3:** Within this benchmark, it is the expectation that one problem can be represented in multiple ways and understanding how the different representations are related to each other.				
3		MA.K.NSO.3.2	Add two one-digit whole numbers with sums from 0 to 10 and subtract using related facts with procedural reliability.	Number range is now from 0 to 10 and instruction focuses on helping a student choose a method they can use reliably. **Clarification 1:** Instruction focuses on helping a student choose a method they can use reliably.				
	Algebraic Reasoning	***MA.K.AR.1***	***Represent and solve addition problems with sums between 0 and 10 and subtraction problems using related facts.***					
3		MA.K.AR.1.1	For any number from 1 to 9, find the number that makes 10 when added to the given number.	**Clarification 1:** Instruction includes creating a ten using manipulatives, number lines, models and drawings.		MAFS.K.OA.1.1		
2		MA.K.AR.1.2	Given a number from 0 to 10, find the different ways it can be represented as the sum of two numbers.	**Clarification 1:** Instruction includes the exploration of finding possible pairs to make a sum using manipulatives, objects, drawings and expressions; and understanding how the different representations are related to each other.				

2		MA.K.AR.1.3	Solve addition and subtraction real-world problems using objects, drawings or equations to represent the problem.	**Clarification 1:** Instruction includes understanding the context of the problem, as well as the quantities within the problem. **Clarification 2:** Students are not expected to independently read word problems. **Clarification 3:** Addition and subtraction are limited to sums within 10 and related subtraction facts. Refer to Situations Involving Operations with Numbers				
	Algebraic Reasoning	***MA.K.AR.2***	***Develop an understanding of the equal sign.***					
3		MA.K.AR.2.1	Explain why addition or subtraction equations are true using objects or drawings.	New to Kindergarten **Clarification 1:** Instruction focuses on the understanding of the equal sign. **Clarification 2:** Problem types are limited to an equation with two or three terms. The sum or difference can be on either side of the equal sign. **Clarification 3:** Addition and subtraction are limited to sums within 20 and related subtraction facts.				
	Measurement	***MA.K.M.1***	***Identify and compare measurable attributes of objects.***					
4		MA.K.M.1.1	Identify the attributes of a single object that can be measured such as length, volume or weight.	Concept of volume is new to Kindergarten. **Clarification 1:** Within this benchmark, measuring is not required.		MAFS.K.MD.1.1		
4		MA.K.M.1.2	Directly compare two objects that have an attribute which can be measured in common. Express the comparison using language to describe the difference.	**Clarification 1:** To directly compare length, objects are placed next to each other with one end of each object lined up to determine which one is longer. **Clarification 2:** Language to compare length includes short, shorter, long, longer, tall, taller, high or higher. Language to compare volume includes has more, has less, holds more, holds less, more full, less full, full, empty, takes up more space or takes up less space. Language to compare weight includes heavy, heavier, light, lighter, weighs more or weighs less.		MAFS.K.MD.1.2		
4		MA.K.M.1.3	Express the length of an object, up to 20 units long, as a whole number of lengths by laying non-standard objects end to end with no gaps or overlaps.	Measurement lengths up to 20 units long is new to Kindergarten. **Clarification 1:** Non-standard units of measurement are units that are not typically used, such as paper clips or colored tiles. To measure with non-standard units, students lay multiple copies of the same object end to end with no gaps or overlaps. The length is shown by the number of objects needed.				
	Geometric Reasoning	***MA.K.GR.1***	***Identify, compare and compose two- and three-dimensional figures.***					

4		MA.K.GR.1.1	Identify two- and three-dimensional figures regardless of their size or orientation. Figures are limited to circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders.	**Clarification 1:** Instruction includes a wide variety of circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders. **Clarification 2:** Instruction includes a variety of non-examples that lack one or more defining attributes. **Clarification 3:** Two-dimensional figures can be either filled, outlined or both.		MAFS.K.G.1.1–3		
4		MA.K.GR.1.2	Compare two-dimensional figures based on their similarities, differences and positions. Sort two-dimensional figures based on their similarities and differences. Figures are limited to circles, triangles, rectangles and squares.	**Clarification 1:** Instruction includes exploring figures in a variety of sizes and orientations. **Clarification 2:** Instruction focuses on using informal language to describe relative positions and the similarities or differences between figures when comparing and sorting.		MAFS.K.G.2.4–6		
4		MA.K.GR.1.3	Compare three-dimensional figures based on their similarities, differences and positions. Sort three-dimensional figures based on their similarities and differences. Figures are limited to spheres, cubes, cones and cylinders.	**Clarification 1:** Instruction includes exploring figures in a variety of sizes and orientations. **Clarification 2:** Instruction focuses on using informal language to describe relative positions and the similarities or differences between figures when comparing and sorting.		MAFS.K.G.2.4–6		
4		MA.K.GR.1.4	Find real-world objects that can be modeled by a given two- or three- dimensional figure. Figures are limited to circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders.					
4		MA.K.GR.1.5	Combine two-dimensional figures to form a given composite figure. Figures used to form a composite shape are limited to triangles, rectangles and squares.	**Clarification 1:** This benchmark is intended to develop the understanding of spatial relationships.				
	Data Analysis & Probability	***MA.K.DP.1***	***Develop an understanding for collecting, representing and comparing data.***					
1		MA.K.DP.1.1	Collect and sort objects into categories and compare the categories by counting the objects in each category. Report the results verbally, with a written numeral or with drawings.	Report the results verbally, with a written numeral or with drawings is new to Kindergarten. **Clarification 1:** Instruction focuses on supporting work in counting. **Clarification 2:** Instruction includes geometric figures that can be categorized using their defining attributes. **Clarification 3:** Within this benchmark, it is not the expectation for students to construct formal representations or graphs on their own.		MAFS.K.MD.2.3		

Florida's B.E.S.T. Mathematics Standards

sents differences from MAFS

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
	Number Sense and Operations	***MA.1.NSO.1***	***Extend counting sequences and understand the place value of two-digit numbers.***					
2		MA.1.NSO.1.1	Starting at a given number, count forward and backwards within 120 by ones. Skip count by 2s to 20 and by 5s to 100.	Counting backwards within 120 by ones, and skip counting by 2s to 20 and by 5s to 100 are new to grade 1. **Clarification 1:** Instruction focuses on the connection to addition as "counting on" and subtraction as "counting back." **Clarification 2:** Instruction also focuses on the recognition of patterns within skip counting which helps build a foundation for multiplication in later grades. **Clarification 3:** Instruction includes recognizing counting sequences using visual charts, such as a 120 chart, to emphasize base 10 place value.		MAFS.1.NBT.1.1		
3		MA.1.NSO.1.2	Read numbers from 0 to 100 written in standard form, expanded form and word form. Write numbers from 0 to 100 using standard form and expanded form.	Reading numbers in word form and expanded form, and writing numbers in expanded form are new to grade 1.		MAFS.1.NBT.2.2		
3		MA.1.NSO.1.3	Compose and decompose two-digit numbers in multiple ways using tens and ones. Demonstrate each composition or decomposition with objects, drawings and expressions or equations.			MAFS.1.NBT.2.5		
3		MA.1.NSO.1.4	Plot, order and compare whole numbers up to 100.	Plotting and ordering numbers are new to grade 1. **Clarification 1:** When comparing numbers, instruction includes using a number line and using place values of the tens and ones digits. **Clarification 2:** Within this benchmark, the expectation is to use terms (less than, greater than, between, or equal to) and symbols (<,>,=).				
	Number Sense and Operations	***MA.1.NSO.2***	***Develop an understanding of addition and subtraction operations with one- and two-digit numbers.***					

1		MA.1.NSO.2.1	Recall addition facts with sums to 10 and related subtraction facts with automaticity.	Recall with automaticity is new to grade 1.		MAFS.1.OA.1.1		
1		MA.1.NSO.2.2	Add two whole numbers with sums from 0 to 20, and subtract using related facts with procedural reliability.	**Clarification 1:** Instruction focuses on helping a student choose a method they can use reliably. **Clarification 2:** Instruction includes situations involving adding to, putting together, comparing and taking from.		MAFS.1.OA.1.3		
3		MA.1.NSO.2.3	Identify the number that is one more, one less, ten more and ten less than a given two-digit number.	**Clarification 1:** Instruction focuses on helping a student choose a method they can use reliably		MAFS.1.OA.1.4		
3		MA.1.NSO.2.4	Explore the addition of a two-digit number and a one-digit number with sums to 100.	**Clarification 1:** Instruction focuses on combining ones and tens and composing new tens from ones, when needed. **Clarification 2:** Instruction includes the use of manipulatives, number lines, drawings or models.		MAFS.1.OA.3.7		
3		MA.1.NSO.2.5	Explore subtraction of a one-digit number from a two-digit number.	New to grade 1. **Clarification 1:** Instruction focuses on utilizing the number line as a tool for subtraction through "counting on" or "counting back." The process of counting on highlights subtraction as a missing addend problem. **Clarification 2:** Instruction includes the use of manipulatives, drawings or equations to decompose tens and regroup ones, when needed.		MAFS.1.OA.3.8		
	Fractions	***MA.1.FR.1***	***Develop an understanding of fractions by partitioning shapes into halves and fourths.***					
		MA.1.FR.1.1	Partition circles and rectangles into two and four equal-sized parts. Name the parts of the whole using appropriate language including halves or fourths.	**Clarification 1:** This benchmark does not require writing the equal sized parts as a fraction with a numerator and denominator.				
	Algebraic Reasoning	***MA.1.AR.1***	***Solve addition problems with sums between 0 and 20 and subtraction problems using related facts.***					

		MA.1.AR.1.1	Apply properties of addition to find a sum of three or more whole numbers.	**Clarification 1:** Within this benchmark, the expectation is to apply the associative and commutative properties of addition. It is not the expectation to name the properties or use parentheses. Refer to Properties of Operations, Equality and Inequality (Appendix D). **Clarification 2:** Instruction includes emphasis on using the properties to make a ten when adding three or more numbers. **Clarification 3:** Addition is limited to sums within 20.				
1		MA.1.AR.1.2	Solve addition and subtraction real-world problems using objects, drawings or equations to represent the problem.	**Clarification 1:** Instruction includes understanding the context of the problem, as well as the quantities within the problem. **Clarification 2:** Students are not expected to independently read word problems. **Clarification 3:** Addition and subtraction are limited to sums within 20 and related subtraction facts.		MAFS.1.OA.1.2		
	Algebraic Reasoning	***MA.1.AR.2***	**Develop an understanding of the relationship between addition and subtraction.**					
2		MA.1.AR.2.1	Restate a subtraction problem as a missing addend problem using the relationship between addition and subtraction.	**Clarification 1:** Addition and subtraction are limited to sums within 20 and related subtraction facts.		MAFS.1.MD.3.3		
2		MA.1.AR.2.2	Determine and explain if equations involving addition or subtraction are true or false.	**Clarification 1:** Instruction focuses on understanding of the equal sign. **Clarification 2:** Problem types are limited to an equation with no more than four terms. The sum or difference can be on either side of the equal sign. **Clarification 3:** Addition and subtraction are limited to sums within 20 and related subtraction facts				
2		MA.1.AR.2.3	Determine the unknown whole number in an addition or subtraction equation, relating three whole numbers, with the unknown in any position.	**Clarification 1:** Instruction begins the development of algebraic thinking skills where the symbolic representation of the unknown uses any symbol other than a letter. **Clarification 2:** Problems include the unknown on either side of the equal sign. **Clarification 3:** Addition and subtraction are limited to sums within 20 and related subtraction facts.				
	Measurement	*MA.1.M.1*	***Compare and measure the length of objects.***					

4		MA.1.M.1.1	Estimate the length of an object to the nearest inch. Measure the length of an object to the nearest inch or centimeter.	Measuring an object to the nearest centimeter is new to grade 1. **Clarification 1:** Instruction emphasizes measuring from the zero point of the ruler. The markings on the ruler indicate the unit of length by marking equal distances with no gaps or overlaps. **Clarification 2:** When estimating length, the expectation is to give a reasonable number of inches for the length of a given object		MAFS.1.MD.1.1		
4		MA.1.M.1.2	Compare and order the length of up to three objects using direct and indirect comparison.	**Clarification 1:** When directly comparing objects, the objects can be placed side by side or they can be separately measured in the same units and the measurements can be compared. **Clarification 2:** Two objects can be compared indirectly by directly comparing them to a third object.		MAFS.1.MD.1.2		
		MA.1.M.2	***Tell time and identify the value of coins and combinations of coins and dollar bills.***					
4		MA.1.M.2 .1	Using analog and digital clocks, tell and write time in hours and half-hours.	**Clarification 1:** Within this benchmark, the expectation is not to understand military time or to use a.m. or p.m. **Clarification 2:** Instruction includes the connection to partitioning circles into halves and to semicircles. v		MAFS.1.MD.3.3		
4		MA.1.M.2.2	Identify pennies, nickels, dimes and quarters, and express their values using the ¢ symbol. State how many of each coin equal a dollar.	**Clarification 1:** Instruction includes the recognition of both sides of a coin. **Clarification 2:** Within this benchmark, the expectation is not to use decimal values.				

4		MA.1.M.2.3	Find the value of combinations of pennies, nickels and dimes up to one dollar, and the value of combinations of one, five and ten dollar bills up to $100.	Finding the value of combinations of coins with nickels and the combination of one, five and ten dollar bills are new to grade 1. **Clarification 1:** Instruction includes the identification of a one, five and ten-dollar bill and the computation of the value of combinations of pennies, nickels and dimes or one, five and ten dollar bills. **Clarification 2:** Instruction focuses on the connection to place value and skip counting. **Clarification 3:** Within this benchmark, the expectation is not to use decimal values or to find the value of a combination of coins and dollars.				
	Geometric Reasoning	***MA.1.GR.1***	***Identify and analyze two- and three-dimensional figures based on their defining attributes.***					
4		MA.1.GR.1.1	Identify, compare and sort two- and three-dimensional figures based on their defining attributes. Figures are limited to circles, semi-circles, triangles, rectangles, squares, trapezoids, hexagons, spheres, cubes, rectangular prisms, cones and cylinders.	Using formal and informal language to describe the defining attributes of figures when comparing and sorting; identifying two- and three-dimensional figures; and the addition of semi-circles and spheres are new to grade 1. **Clarification 1:** Instruction focuses on the defining attributes of a figure: whether it is closed or not; number of vertices, sides, edges or faces; and if it contains straight, curved or equal length sides or edges. **Clarification 2:** Instruction includes figures given in a variety of sizes, orientations and non-examples that lack one or more defining attributes. **Clarification 3:** Within this benchmark, the expectation is not to sort a combination of two- and threedimensional figures at the same time or to define the attributes of trapezoids. **Clarification 4:** Instruction includes using formal and informal language to describe the defining attributes of figures when comparing and sorting.		MAFS.1.G.1.1		
4		MA.1.GR.1.2	Sketch two-dimensional figures when given defining attributes. Figures are limited to triangles, rectangles, squares and hexagons.			MAFS.1.G.1.2		

4		MA.1.GR.1.3	Compose and decompose two- and three-dimensional figures. Figures are limited to semi-circles, triangles, rectangles, squares, trapezoids, hexagons, cubes, rectangular prisms, cones and cylinders.	**Clarification 1:** Instruction focuses on the understanding of spatial relationships relating to part-whole, and on the connection to breaking apart numbers and putting them back together. **Clarification 2:** Composite figures are composed without gaps or overlaps. **Clarification 3:** Within this benchmark, it is not the expectation to compose two- and three dimensional figures at the same time.		MAFS.1.G.1.2		
4		MA.1.GR.1.4	Given a real-world object, identify parts that are modeled by two- and three-dimensional figures. Figures are limited to semi-circles, triangles, rectangles, squares and hexagons, spheres, cubes, rectangular prisms, cones and cylinders.	New to grade 1.				
	Data Analysis and Probability	***MA.1.DP.1***	***Collect, represent and interpret data using pictographs and tally marks.***	Within Data Analysis and Probability, tally marks, and connecting them to skip counting, are new to grade 1. **Clarification 1:** Instruction includes connecting tally marks to counting by 5s. **Clarification 2:** Data sets include geometric figures that are categorized using their defining attributes and data from the classroom or school. **Clarification 3:** Pictographs are limited to single-unit scales.				
4		MA.1.DP.1.1	Collect data into categories and represent the results using tally marks or pictographs.	**Clarification 1:** Instruction includes connecting tally marks to counting by 5s. **Clarification 2:** Data sets include geometric figures that are categorized using their defining attributes and data from the classroom or school. **Clarification 3:** Pictographs are limited to single-unit scales.				
2		MA.1.DP.1.2	Interpret data represented with tally marks or pictographs by calculating the total number of data points and comparing the totals of different categories.	**Clarification 1:** Instruction focuses on the connection to addition and subtraction when calculating the total and comparing, respectively.				
Florida's B.E.S.T. Mathematics Standards								

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
1	***Number Sense and Operations***	***MA.2.NSO.1***	***Understand the place value of three-digit numbers.***					
1		MA.2.NSO.1.1	Read and write numbers from 0 to 1,000 using standard form, expanded form and word form.			MAFS.2.NBT.1.1		
1		MA.2.NSO.1.2	Compose and decompose three-digit numbers in multiple ways using hundreds, tens and ones. Demonstrate each composition or decomposition with objects, drawings and expressions or equations.			MAFS.2.NBT.1.2		
1		MA.2.NSO.1.3	Plot, order and compare whole numbers up to 1,000.	Plotting and ordering is new to grade 2. **Clarification 1:** When comparing numbers, instruction includes using a number line and using place values of the hundreds, tens and ones digits. **Clarification 2:** Within this benchmark, the expectation is to use terms (e.g., less than, greater than, between or equal to) and symbols (<, > or =).		MAFS.2.NBT.1.3		
1		MA.2.NSO.1.4	Round whole numbers from 0 to 100 to the nearest 10.	New to grade 2. **Clarification 1:** Within the benchmark, the expectation is to understand that rounding is a process that produces a number with a similar value that is less precise but easier to use.		MAFS.2.NBT.2.4		
1/2	***Number Sense and Operations***	***MA.2.NSO.2***	***Add and subtract two- and three-digit whole numbers.***					
1/2		MA.2.NSO.2.1	Recall addition facts with sums to 20 and related subtraction facts with automaticity.			MAFS.2.OA.2.2		

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
1/2		MA.2.NSO.2.2	Identify the number that is ten more, ten less, one hundred more and one hundred less than a given three-digit number.			MAFS.2.NBT.2.5		
1/2		MA.2.NSO.2.3	Add two whole numbers with sums up to 100 with procedural reliability. Subtract a whole number from a whole number, each no larger than 100, with procedural reliability.	**Clarification 1:** Instruction focuses on helping a student choose a method they can use reliably.		MAFS.2.NBT.2.6		
1/2		MA.2.NSO.2.4	Explore the addition of two whole numbers with sums up to 1,000. Explore the subtraction of a whole number from a whole number, each no larger than 1,000.	**Clarification 1:** Instruction includes the use of manipulatives, number lines, drawings or properties of operations or place value. **Clarification 2:** Instruction focuses on composing and decomposing ones, tens and hundreds when needed.		MAFS.2.NBT.2.7		
3	***Fractions***	***MA.2.FR.1***	***Develop an understanding of fractions.***					
3		MA.2.FR.1.1	Partition circles and rectangles into two, three or four equal-sized parts. Name the parts using appropriate language, and describe the whole as two halves, three thirds or four fourths.	**Clarification 1:** Within this benchmark, the expectation is not to write the equal-sized parts as a fraction with a numerator and denominator. **Clarification 2:** Problems include mathematical and real-world context.		MAFS.2.G.3.3		
3		MA.2.FR.1.2	Partition rectangles into two, three or four equal-sized parts in two different ways showing that equal-sized parts of the same whole may have different shapes.	Partitioning in two different ways to show equal size parts is new to grade 2.				
2	***Algebraic Reasoning***	***MA.2.AR.1***	***Solve addition problems with sums between 0 and 100 and related subtraction problems.***					

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
2		MA.2.AR.1.1	Solve one- and two-step addition and subtraction real-world problems.	**Clarification 1:** Instruction includes understanding the context of the problem, as well as the quantities within the problem. **Clarification 2:** Problems include creating real-world situations based on an equation. **Clarification 3:** Addition and subtraction are limited to sums up to 100 and related differences.		MAFS.2.OA.1.1		
2	*Algebraic Reasoning*	***MA.2.AR.2***	***Demonstrate an understanding of equality and addition and subtraction.***					
2		MA.2.AR.2.1	Determine and explain whether equations involving addition and subtraction are true or false.	New to grade 2. **Clarification 1:** Instruction focuses on understanding of the equal sign. **Clarification 2:** Problem types are limited to an equation with three or four terms. The sum or difference can be on either side of the equal sign. **Clarification 3:** Addition and subtraction are limited to sums up to 100 and related differences.		MAFS.2.MD.3.7		
2		MA.2.AR.2.2	Determine the unknown whole number in an addition or subtraction equation, relating three or four whole numbers, with the unknown in any position.	**Clarification 1:** Instruction extends the development of algebraic thinking skills where the symbolic representation of the unknown uses any symbol other than a letter. **Clarification 2:** Problems include having the unknown on either side of the equal sign. **Clarification 3:** Addition and subtraction are limited to sums up to 100 and related differences				
2	*Algebraic Reasoning*	***MA.2.AR.3***	***Develop an understanding of multiplication.***					
1		MA.2.AR.3.1	Represent an even number using two equal groups or two equal addends. Represent an odd number using two equal groups with one left over or two equal addends plus 1.	**Clarification 1:** Instruction focuses on the connection of recognizing even and odd numbers using skip counting, arrays and patterns in the ones place. **Clarification 2:** Addends are limited to whole numbers less than or equal to 12.				

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
1		MA.2.AR.3.2	Use repeated addition to find the total number of objects in a collection of equal groups. Represent the total number of objects using rectangular arrays and equations.	**Clarification 1:** Instruction includes making a connection between arrays and repeated addition, which builds a foundation for multiplication. **Clarification 2:** The total number of objects is limited to 25.				
3	***Measurement***	***MA.2.M.1***	***Measure the length of objects and solve problems involving length.***					
3		MA.2.M.1.1	Estimate and measure the length of an object to the nearest inch, foot, yard, centimeter or meter by selecting and using an appropriate tool.	**Clarification 1:** Instruction includes seeing rulers and tape measures as number lines. **Clarification 2:** Instruction focuses on recognizing that when an object is measured in two different units, fewer of the larger units are required. When comparing measurements of the same object in different units, measurement conversions are not expected. **Clarification 3:** When estimating the size of an object, a comparison with an object of known size can be used.		MAFS.2.MD.1.1		
3		MA.2.M.1.2	Measure the lengths of two objects using the same unit and determine the difference between their measurements.	**Clarification 1:** Within this benchmark, the expectation is to measure objects to the nearest inch, foot, yard, centimeter or meter.		MAFS.2.MD.1.2		
3		MA.2.M.1.3	Solve one- and two-step real-world measurement problems involving addition and subtraction of lengths given in the same units.	**Clarification 1:** Addition and subtraction problems are limited to sums within 100 and related differences.		MAFS.2.MD.1.4		
3	***Measurement***	***MA.2.M.2***	***Tell time and solve problems involving money.***					

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
3		MA.2.M.2.1	Using analog and digital clocks, tell and write time to the nearest five minutes using a.m. and p.m. appropriately. Express portions of an hour using the fractional terms half an hour, half past, quarter of an hour, quarter after and quarter til.	Expressing portions of an hour using the fractional terms half an hour, half past, quarter of an hour, quarter after and quarter til, and the use of a.m. and p.m. are new to grade 2. **Clarification 1:** Instruction includes the connection to partitioning of circles and to the number line. **Clarification 2:** Within this benchmark, the expectation is not to understand military time.		MAFS.2.MD.3.7		
3		MA.2.M.2.2	Solve one- and two-step addition and subtraction real-world problems involving either dollar bills within $100 or coins within 100¢ using $ and ¢ symbols appropriately.	**Clarification 1:** Within this benchmark, the expectation is not to use decimal values. **Clarification 2:** Addition and subtraction problems are limited to sums within 100 and related differences.		MAFS.2.MD.3.8		
4	***Geometric Reasoning***	***MA.2.GR.1***	***Identify and analyze two-dimensional figures and identify lines of symmetry.***					
4		MA.2.GR.1.1	Identify and draw (using rulers) two-dimensional figures based on their defining attributes. Figures are limited to triangles, rectangles, squares, pentagons, hexagons and octagons.	Octagons and drawing using rulers and straight edges are new to grade 2. **Clarification 1:** Within this benchmark, the expectation includes the use of rulers and straight edges.		MAFS.2.G.1.1		
4		MA.2.GR.1.2	Categorize two-dimensional figures based on the number and length of sides, number of vertices, whether they are closed or not and whether the edges are curved or straight.	New to grade 2. **Clarification 1:** Instruction focuses on using formal and informal language to describe defining attributes when categorizing.		MAFS.2.G.1.2		
4		MA.2.GR.1.3	Identify line(s) of symmetry for a two-dimensional figure.	New to grade 2. **Clarification 1:** Instruction focuses on the connection between partitioning two-dimensional figures and symmetry. **Clarification 2:** Problem types include being given an image and determining whether a given line is a line of symmetry or not.		MAFS.2.G.1.3		

Quarter	Strand	BEST Standard	Skills/Concepts	Clarifications/Transition Guide	Mathematical Thinking and Reasoning (MTR)	MAFS Standard	Text Correlation	Date
4	***Geometric Reasoning***	***MA.2.GR.2***	***Describe perimeter and find the perimeter of polygons.***					
2		MA.2.GR.2.1	Explore perimeter as an attribute of a figure by placing unit segments along the boundary without gaps or overlaps. Find perimeters of rectangles by counting unit segments.	New to grade 2. **Clarification 1:** Instruction emphasizes the conceptual understanding that perimeter is an attribute that can be measured for a two-dimensional figure. **Clarification 2:** Instruction includes real-world objects, such as picture frames or desktops.				
2		MA.2.GR.2.2	Find the perimeter of a polygon with whole-number side lengths. Polygons are limited to triangles, rectangles, squares and pentagons.	New to grade 2. **Clarification 1:** Instruction includes the connection to the associative and commutative properties of addition. Refer to Properties of Operations, Equality and Inequality (Appendix D). **Clarification 2:** Within this benchmark, the expectation is not to use a formula to find perimeter. **Clarification 3:** Instruction includes cases where the side lengths are given or measured to the nearest unit. **Clarification 4:** Perimeter cannot exceed 100 units and responses include the appropriate units.				
2	**Data Analysis and Probability**	MA.2.DP.1	***Collect, categorize, represent and interpret data using appropriate titles, labels and units.***					
2		MA.2.DP.1.1	Collect, categorize and represent data using tally marks, tables, pictographs or bar graphs. Use appropriate titles, labels and units.	Scales using fives and tens are new to grade 2. **Clarification 1:** Data displays can be represented both horizontally and vertically. Scales on graphs are limited to ones, fives or tens.		MAFS.2.MD.4.10		
2		MA.2.DP.1.2	Interpret data represented with tally marks, tables, pictographs or bar graphs including solving addition and subtraction problems.	Scales using fives and tens are new to grade 2. **Clarification 1:** Addition and subtraction problems are limited to whole numbers with sums within 100 and related differences. **Clarification 2:** Data displays can be represented both horizontally and vertically. Scales on graphs are limited to ones, fives or tens.				