

Mathematics Curriculum

Grade: First Grade

All vocabulary will spiral.

Standards	Month	Vocabulary	Operations
M (N&O)	September		
<p>M:N&O:1:2</p> <p>Demonstrates understanding of the relative magnitude of numbers 0 to 20.</p>		<p>Number, whole number, digit, numeral</p> <p>before, after, between</p> <p>less than, more than, smaller than, bigger than</p> <p>number lines</p> <p>ordinal number words</p>	<p>ordering whole numbers;</p> <p>comparing whole numbers;</p> <p>demonstrating inequality by using “more” or “less”</p> <p>using models;</p> <p>connecting words to quantities by using number lines or explanations</p>
<p>M:N&O:1:3</p> <p>Demonstrate understanding of mathematical operations</p>		<p>plus, sum, equals, difference</p> <p>solve, total, horizontal, vertical, symbol</p> <p>number sentence, addition sentence, subtraction sentence, all together, are left, more, less.</p>	<p>involving addition and subtraction of whole numbers(<u>from 0 to 30</u>)</p> <p>by joining actions, separating actions;</p> <p>identifying part- to-whole relationships</p> <p>Adding multiple one-</p>

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			digit numbers
M (G&M)			
M:G&M: 1:1 Use properties and attributes, composition decompositions of shapes.		circle, square, rectangle, triangle, polygon, sides, corners, same and different.	sort or classify polygons by a combination of <u>two</u> non measurable or measurable attributes; recognizes, names, build, and <u>draws</u> polygons and circles in environment
M(F&A)			
M:F&A:1 Identifies and extends to specific cases a variety of patterns.		Pattern, sequence, extend, repeat	(numeric and non numeric) in models, tables, sequences by <u>finding a missing element</u> e.g., 2,4,6,_,10; snap, clap, ___ red, yellow, ___ 1,2, ___
M(DSP)			
M:DSP:1:1 Interpret a given representation <u>created by the class</u> .		graph, pictograph, bar graph, data, table, tool, on- to-one correspondence, chart, diagram	<u>line plots, pictographs with one-to-one correspondence</u> and tables answering questions related to the data; analyzing the data to

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			formulate conclusions <u>using words, diagrams,</u> <u>or verbal responses</u>
M:DSP:1:2 Analyze patterns, trends, or distributions in data in a variety of contexts.		More, less, equal, one-to-one correspondence, fewer, greater, greater than, less than, equal to.	determining or using more, less or equal
M (N&O)	October		
M:N&O:1:3 Demonstrate conceptual understanding of mathematical operations.			involving addition and subtraction of whole numbers(<u>from 0 to 30</u>) by joining actions, separating actions; identifying part- to-whole relationships Adding multiple one-digit numbers
M:N&O:1:7 Make estimates		Estimate, guesstimate	revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to</u>

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			30)
M:N&O:1:8 Applies properties of numbers.		Odd, even	to solve problems and to simply computations involving whole numbers, odd and even; composition, decomposition Field properties commutative and identity for addition.
M(F&A)			
M:F&A:1:4 Demonstrate conceptual understanding of equality.		Missing number, number sentence, model, true, false	finding the value that will make an open sentence true, e.g., $2 + ? = 7$ (one operation) using models, verbal or written equations
M (G&M)			
M:G&M:1:8 Determines elapsed and accrued time.		calendar, months, days, year, week, hour hand, minute hand, analog clock, digital clock, minute, half hour, hour	Days of the week, <u>months of the year, an hour, on the half hour</u>

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<p>M:G&M:1:9</p> <p>Demonstrates understanding of spatial relationships.</p>		<p>Position words, next to, underneath, above, below, close by, right, left, corner, direction</p>	<p>using location and position.</p> <p><u>names relation to another on a map or in a diagram;</u></p> <p><u>interprets position, e.g., close by, on the right, underneath, above, beyond</u></p> <p><u>location in</u></p>
<p>M (DSP)</p>			
<p>M:DSP:1:1</p> <p>Interpret a given representation <u>created by the class.</u></p>			<p><u>line plots, pictographs with one-to-one correspondence</u> and tables answering questions related to the data;</p> <p>analyzing the data to formulate conclusions <u>using words, diagrams, or verbal responses</u></p>

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<p>M:DSP:1:2</p> <p>Analyze patterns, trends, or distributions in data in a variety of contexts.</p>			<p>determining or using more, less or equal</p>
<p>M:DSP:1:5</p> <p>For a probability event in which the same space may or may not contain equally likely outcomes.</p>		<p>Prediction, more likely, less likely, equally likely</p>	<p>to determine the likelihood of an event using “more likely,” “less likely”, or “equally likely”</p>
<p>M (N&O)</p>	<p>November</p>		
<p>M:N&O:1:1</p> <p>Demonstrate conceptual understanding of rational numbers.</p>		<p>Tens, ones, hundreds, place value, backwards, forwards, skip count.</p>	<p>with respect to whole numbers from <u>0 to 100</u> <u>using place value</u>;</p> <p>composing and decomposing numbers</p> <p>using models, explanations, other representations</p>
<p>M:N&O:1:2</p> <p>Demonstrates understanding of the relative magnitude of numbers 0 to 20.</p>			<p>relative magnitude of numbers from <u>0-100</u>;</p> <p>ordering whole numbers;</p>

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			comparing whole numbers;demonstrating inequality by using “more” or “less” using models; connecting words to quantities by using number lines or explanations
M:N&O:1:3 Demonstrate conceptual understanding of mathematical operations.			involving addition and subtraction of whole numbers(<u>from 0 to 30</u>) by joining actions, separating actions; identifying part- to-whole relationships Adding multiple one-digit numbers
M:N&O:1:7 Make estimates.			revises estimates as objects are counted using appropriate method; estimates the number

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			of objects in a set (<u>up to 30</u>)
M (G&M)			
<p>M:G&M:1:8</p> <p>Determines elapsed and accrued time as it relates to calendars:</p> <p>Days of the week, <u>months of the year, an hour, on the half hour</u></p> <p>M:G&M:1:9</p> <p>Demonstrates understanding of spatial relationships using location and position.</p>			<p>Calendar</p> <p>Telling and estimating time</p> <p><u>names relation to another on a map or in a diagram;</u></p> <p><u>interprets position, e.g., close by, on the right, underneath, above, beyond</u></p> <p><u>location in</u></p>
M (DSP)			
<p>M:DSP:1:1</p> <p>Interpret a given representation <u>created by the</u></p>			<p><u>line plots, pictographs with one-to-one correspondence and</u></p>

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<p><u>class.</u></p>			<p>tables answering questions related to the data;</p> <p>analyzing the data to formulate conclusions <u>using words, diagrams, or verbal responses</u></p>
<p>M:DSP:1:2</p> <p>Analyze patterns, trends, or distributions in data in a variety of contexts.</p> <p>M:DSP:1:5</p> <p>For a probability event in which the sample space may or may not contain equally likely outcomes.</p>			<p>By determining or using more, less or equal</p> <p>Groups use experiments to describe the likelihood of an event using “more likely,” “less likely”, or “equally likely”</p>
<p>M (N&O)</p>	<p>December</p>		
<p>M:N&O:1:2</p> <p>Demonstrate understanding of relative magnitude of numbers from <u>0-20 through investigations.</u></p>			<p>ordering whole numbers;</p> <p>comparing whole numbers;</p>

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			demonstrating inequality by using “more” or “less” using models; connecting words to quantities by using number lines or explanations
M:N&O:1:3 Demonstrate conceptual understanding of mathematical operations through investigations.			involving addition and subtraction of whole numbers (<u>from 0 to 30</u>) by joining actions, separating actions; identifying part- to-whole relationships Adding multiple one-digit numbers
M:N&O:1:7 Make estimates .			revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to 30</u>)
M (G&M)			

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M:G&M:1:3 Given an example of a three-dimensional geometric shape.		Circular, cube, sphere, figure	finds examples in the environment Rectangular prisms Cylinders, Spheres
M:G&M:1:8 Determines elapsed and accrued time.			as it relates to calendar patterns Days of the week, <u>months of the year</u>
M:G&M:1:9 Demonstrates understanding of spatial relationships using location and position.			<u>names relation to another on a map or in a diagram;</u> <u>interprets position, e.g., close by, on the right, underneath, above, beyond</u> <u>location in</u>
M (DSP)			
M:DSP:1:1 Interpret a given representation <u>created by the class.</u>			(<u>line plots, pictographs with one-to-one correspondence</u> and tables answering questions related to the data; analyzing the data to

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			formulate conclusions <u>using words, diagrams, or verbal responses</u>
M:DSP:1:2 Analyzes patterns, trends, or distributions in data in a variety of contexts.			determining or using more, less or equal
M:DSP:1:5 For a probably event in which the sample space may or may not contain equally likely outcomes.			To describe the likelihood or chance of an event using “more likely,” “less likely”, or “equally likely”
M (N&O)	January		
M:N&O:1:2 Demonstrate understanding of relative magnitude of numbers from <u>0-100 through investigations.</u>			ordering whole numbers; comparing whole numbers; demonstrating inequality by using “more” or “less” using models; connecting words to quantities by using

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			number lines or explanations
M:N&O:1:3 Demonstrate conceptual understanding of mathematical operations.			involving addition and subtraction of whole numbers(<u>from 0 to 30</u>) by joining actions, separating actions; identifying part- to-whole relationships Adding multiple one-digit numbers
M:N&O:1:6 Mentally adds and subtracts whole numbers. <i>The intent of this GLE is to embed mental arithmetic throughout the instructional program, not to teach it as a separate unit).</i>		Addition sentence, sum, difference, more, less, subtraction sentence, minus, plus, add, subtract, take away, all together, are left, number sentence	<u>names the number that is 1 or 2 more or less;</u> <u>mentally adds and subtracts whole number facts through 10</u>
M:N&O:1:7 Make estimates.			revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to</u>

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			<u>30)</u>
M:N&O:1:8 Apply properties of number to solve problems and to simplify computations.			involving whole numbers, odd and even; composition, decomposition Field properties commutative and identity for addition.
M (G&M M:G&M:1:3 Given an example of a three-dimensional geometric shape.			finds examples in the environment Rectangular prisms Cylinders, Spheres
M:G&M:1:8 Determines elapsed and accrued time.			as it relates to calendar patterns Days of the week, <u>months of the year, an hour, on the half hour</u>
M:G&M:1:9 Demonstrates understanding of spatial			<u>names relation to another on a map or in</u>

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For a probability event in which the sample space may or may not contain equally likely outcomes.			the likelihood of an event using “more likely,” “less likely”, or “equally likely”
M (N&O)	February		
M:N&O:1:2 Demonstrate understanding of relative magnitude of numbers from <u>0-100</u> .			ordering whole numbers; comparing whole numbers; demonstrating inequality by using “more” or “less” using models; connecting words to quantities by using number lines or explanations.
M:N&O:1:3 Demonstrate conceptual understanding of mathematical operations involving addition and subtraction of whole numbers.			(<u>from 0 to 30</u>) by joining actions, separating actions; identifying part- to- whole relationships Adding multiple one-digit numbers
M:N&O:1:5 Demonstrates understanding of monetary		Coins, pennies, nickels, dimes, quarters, cents, value	by knowing the names and values of coins (penny, nickel, dime,

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value.			and <u>quarter</u>); <u>adding collections of like coins together to a sum no greater than \$1.00.</u>
M:N&O:1:6 Mentally adds and subtracts whole numbers. <i>The intent of this GLE is to embed mental arithmetic throughout the instructional program, not to teach it as a separate unit).</i>			<u>names the number that is 1 or 2 more or less;</u> <u>mentally adds and subtracts whole number facts through 10</u>
M:N&O:1:7 Make estimates.			revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to 30</u>)
M:N&O:1:8 Apply properties of numbers to solve problems and to simplify computations .			involving whole numbers, odd and even; composition,

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			decomposition Field properties commutative and identity for addition.
M (G&M)			
M:G&M:1:1 Use properties, attributes, composition, or decompositions to sort or classify polygons			by a <u>combination of two</u> non-measurable or measurable attributes; recognizes, names, build, and <u>draws</u> polygons and circles in the environment
M:G&M:1:6 Demonstrates conceptual understanding of length/height of a two-dimensional object.		measure, length, measurement,	using non-standard units (e.g. comparing objects to trains of small cubes, using iterations of a small unit to measure an object.)
M:G&M:1:7 Demonstrates conceptual understanding of measureable attributes.		Non-standard units, longer, shorter, taller, heavier, warmer, weight, scales	using “longer”, “shorter”, “taller”, “heavier”, “warmer” <u>using non-standards units with direct comparison.</u>
M:G&M:1:8			as it relates to

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Determines elapsed and accrued time.			calendars: Days of the week, <u>months of the year, an hour, on the half hour</u>
M (DSP)			
M:DSP:1:1 Interpret a given representation <u>created by the class.</u>			<u>line plots, pictographs with one-to-one correspondence</u> and tables answering questions related to the data; analyzing the data to formulate conclusions <u>using words, diagrams, or verbal responses</u>
M:DSP:1:2 Analyze patterns, trends, or distributions in data.			determining or using more, less or equal
M:DSP:1:5 For a probability event in which the sample space may or may not contain equally likely outcomes.			Groups use experiments to describe the likelihood of an event using “more likely,” “less likely”, or

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			“equally likely”
M (N&O)	March		
M:N&O:1:2 Demonstrate understanding of relative magnitude of numbers from <u>0-100</u> .			ordering whole numbers; comparing whole numbers;demonstrating inequality by using “more” or “less” using models; connecting words to quantities by using number lines or explanations
M:N&O:1:6 Mentally adds and subtracts whole numbers. <i>The intent of this GLE is to embed mental arithmetic throughout the instructional program, not to teach it as a separate unit).</i>			<u>names the number that is 1 or 2 more or less;</u> <u>mentally adds and subtracts whole number facts through 10</u>
M:N&O:1:7 Make estimates.			Revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to 30</u>)

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M (G&M)			
M:G&M:1:1 Use properties and attributes, composition, decompositions of shapes to sort or classify polygons.			by a combination of <u>two non measurable or measurable attributes</u> ; recognizes, names, build, and <u>draws</u> polygons and circles in the environment
M:G&M:1:7 Demonstrates an understanding of measureable attributes.			using “longer”, “shorter”, “taller”, “heavier”, “warmer” <u>using non-standards units</u>
M:G&M:1:8 Determines elapsed and accrued time as it relates to calendars.			Days of the week, <u>months of the year, an hour, on the half hour</u>
M:G&M:1:9 Demonstrates understanding of spatial relationships using location and position.			<u>names relation to another on a map or in a diagram; interprets position, e.g., close by, on the right, underneath, above, beyond , location in</u>
M (DSP)			

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<p>M:DSP:1:1 Interpret a given representation <u>created by the class.</u></p>			<p><u>(line plots, pictographs with one-to-one correspondence and tables answering questions related to the data;</u> analyzing the data to formulate conclusions <u>using words, diagrams, or verbal responses</u></p>
<p>M:DSP:1:2 Analyze patterns, trends, or distributions in data.</p>			<p>determining or using more, less or equal</p>
<p>M:DSP:1:5 For a probability event in which the sample space may or may not contain equally likely outcomes.</p>			<p>Groups use experiments to describe the likelihood of an event using “more likely,” “less likely”, or “equally likely”</p>
<p>M (N &O)</p>	<p>April</p>		
<p>M:N&O:1:2 Demonstrate understanding of relative magnitude of numbers from <u>0-100.</u></p>			<p>ordering whole numbers; comparing whole numbers;demonstrating inequality by using “more” or “less”</p>

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			using models; connecting words to quantities by using number lines or explanations
M:N&O:1:6 Mentally adds and subtracts whole numbers. <i>The intent of this GLE is to embed mental arithmetic throughout the instructional program, not to teach it as a separate unit).</i>			<u>names the number that is 1 or 2 more or less;</u> <u>mentally adds and subtracts whole number facts through 10</u>
M:N&O:1:7 Make estimates.			revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to 30</u>)
M (G&M)			
M:G&M:1:1 Use properties and attributes, composition, decompositions of shapes to sort or classify polygons.			by <u>a combination of two</u> non measurable or measurable attributes; recognizes, names, build, and <u>draws</u>

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			polygons and circles in the environment
M:G&M:1:4 Demonstrate understanding of congruency by making mirror images.		Symmetrical, alike, match	creating shapes that have lines of symmetry
M:G&M:1:9 Demonstrates understanding of spatial relationships using location and position.			<u>names relation to another on a map or in a diagram;</u> <u>interprets position, e.g., close by, on the right, underneath, above, beyond</u> <u>location in</u>
M (DSP)			
M:DSP:1:1 Interpret a given representation <u>created by the class.</u>			<u>(line plots, pictographs with one-to-one correspondence and tables answering questions related to the data;</u> <u>analyzing the data to formulate conclusions using words, diagrams, or verbal responses</u>
M:DSP:1:2			determining or using more, less or equal

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Analyze patterns, trends, or distributions in data.			
M:DSP:1:5 For a probability event in which the sample space may or may not contain equally likely outcomes.			Groups use experiments to describe the likelihood of an event using “more likely,” “less likely”, or “equally likely”
M (N&O)	May		
M:N&O:1:1 Demonstrate understanding of rational numbers with respect to whole numbers from <u>0 to 100.</u>		whole, part, half, third, fourth fraction, one-half, one-third, one-fourth	<u>using place value;</u> composing and decomposing numbers using models, explanations, other representations Benchmark fractional numbers $\frac{a}{2}$, $\frac{a}{3}$, $\frac{a}{4}$
M:N&O:1:2 Demonstrate understanding of relative magnitude of numbers from <u>0-100.</u>			ordering whole numbers; comparing whole numbers; demonstrating

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			inequality by using “more” or “less” using models; connecting words to quantities by using number lines or explanations
M:N&O:1:6 Mentally adds and subtracts whole numbers. <i>The intent of this GLE is to embed mental arithmetic throughout the instructional program, not to teach it as a separate unit.</i>			<u>names the number that is 1 or 2 more or less;</u> <u>mentally adds and subtracts whole number facts through 10</u>
M:N&O:1:7 Make estimates.			revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to 30</u>)
M (G&M)			
M:G&M:1:8 Determines elapsed and accrued time as it			Days of the week, <u>months of the year, an hour, on the half hour</u>

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relates to calendars.			
M:G&M:1:9 Demonstrates understanding of spatial relationships using location and position.			<u>names relation to another on a map or in a diagram;</u> <u>interprets position, e.g., close by, on the right, underneath, above, beyond</u> <u>location in</u>
M (DSP)			
M:DSP:1:1 Interpret a given representation <u>created by the class.</u>			<u>(line plots, pictographs with one-to-one correspondence and tables answering questions related to the data;</u> <u>analyzing the data to formulate conclusions using words, diagrams, or verbal responses</u>
M:DSP:1:2 Analyze patterns, trends, or distributions in			determining or using more, less or equal

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data .			
<p>M:DSP:1:5</p> <p>For a probability event in which the sample space may or may not contain equally likely outcomes.</p>			<p>Groups use experiments to describe the likelihood of an event using “more likely,” “less likely”, or “equally likely”</p>
M (N &O)	June		
<p>M:N&O:1:1</p> <p>Demonstrate understanding of rational numbers with respect to whole numbers from <u>0 to 100.</u></p>			<p><u>using place value:</u></p> <p>composing and decomposing numbers</p> <p>using models, explanations, other representations</p> <p>Benchmark fractional numbers $\frac{a}{2}, \frac{a}{3}, \frac{a}{4}$</p>
<p>M:N&O:1:2</p> <p>Demonstrate understanding of relative magnitude of numbers from <u>0-100.</u></p>			<p>ordering whole numbers;</p> <p>comparing whole numbers;</p> <p>demonstrating inequality by using “more” or “less” using</p>

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			models; connecting words to quantities by using number lines or explanations
M:N&O:1:6 Mentally adds and subtracts whole numbers. <i>The intent of this GLE is to embed mental arithmetic throughout the instructional program, not to teach it as a separate unit).</i>			<u>names the number that is 1 or 2 more or less;</u> <u>mentally adds and subtracts whole number facts through 10</u>
M:N&O:1:7 Make estimates.			revises estimates as objects are counted using appropriate method; estimates the number of objects in a set (<u>up to 30</u>)
M (G&M)			
M:G&M:1:8 Determines elapsed and accrued time as it relates to calendars.			<u>Days of the week, months of the year, an hour, on the half hour</u>
M:G&M:1:9 Demonstrates understanding of spatial			<u>names relation to another on a map or in a diagram; interprets</u>

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relationships using location and position.			<u>position, e.g., close by, on the right, underneath, above, beyond, location in</u>
M (DSP)			
M:DSP:1:1 Interpret a given representation <u>created by the class.</u>			<u>(line plots, pictographs with one-to-one correspondence and tables answering questions related to the data;</u> analyzing the data to formulate conclusions <u>using words, diagrams, or verbal responses</u>
M:DSP:1:2 Analyze patterns, trends, or distributions in data.			determining or using more, less or equal
M:DSP:1:5 For a probability event in which the sample space may or may not contain equally likely outcomes.			Groups use experiments to describe the likelihood of an event using “more likely,” “less likely”, or “equally likely”