

**Southern Cayuga Central School District
Emily Howland Elementary
Curriculum Map 2017-2018**

Subject: Math, Module 1

Grade: First

Instructional Days	Essential Questions	Skills	Resources	Standards	Assessments	Vocabulary
<p>Mid. September- December 1st</p>	<p>How can we use objects, drawings and equations to solve addition and subtraction word problems to 20?</p> <p>How can we use properties of operations as strategies to add and subtract?</p> <p>How are addition and subtraction related to one another?</p> <p>How is counting used in both addition and subtraction?</p> <p>How can we use a variety of strategies to add and subtract within 20? What does the equal mean?</p> <p>How do we determine if the equations we read</p>	<ul style="list-style-type: none"> • develop strategies for adding and subtracting whole numbers based on their prior work with small numbers; • use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop 	<p>NYS Module 1</p> <p>IXL Math</p> <p>Subitize Tree</p> <p>XTRA Math</p>	<p>1.OA.1 - Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p> <p>1.OA.5 - Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).</p> <p>1.OA.6 - Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making</p>	<p>Mid Module 1 Assessment</p> <p>End of Module 1 Assessment</p> <p>Informal Observation within small groups</p>	<p>Addition</p> <p>Subtraction</p> <p>Expression</p> <p>Equation</p> <p>Number bond</p> <p>Part</p> <p>Whole</p> <p>Addend</p> <p>fluency</p>

	<p>are true or false?</p> <p>How do we determine an unknown number in an addition or subtraction equation?</p>	<p>strategies to solve arithmetic problems with these operations;</p> <ul style="list-style-type: none"> • understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two); • use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20; • build their understanding of the relationship between addition and 		<p>ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$)</p> <p>1.OA.8 - Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.</i></p> <p>1.OA.3 - Apply properties of operations as strategies to add and subtract. <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative</i></p>		
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		subtraction by comparing a variety of solution strategies.		<p><i>property of addition.)</i> <i>To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$.</i> <i>(Associative property of addition.)</i></p> <p>1.OA.7 - Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</p> <p>1.OA.4 - Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8</p>		
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Instructional Days	Essential Questions	Skills	Resources	Standards	Assessments	Vocabulary
<p>Dec. 2nd-February 1st</p>	<p>How can we use objects, drawings and equations to solve addition and subtraction word problems to 20?</p> <p>How can we use objects, drawings and equations to solve addition and subtraction word problems with 3 whole numbers that equal 20 or less?</p> <p>How can we use properties of operations as strategies to add/subtract?</p> <p>How are addition and subtraction related to one another?</p> <p>How can we use a variety of strategies to add and subtract within 20?</p> <p>How are tens and ones represented in each digit number?</p>	<ul style="list-style-type: none"> • Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions. • Solve word problems that call for addition of 3 whole numbers whose sum is less than or equal to 20. • Apply properties of operations as strategies to add and subtract. • Understand subtraction as an unknown addend 	<p>NYS Module 2</p>	<p>1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p> <p>1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p> <p>1.OA.3 Apply properties of operations as strategies to add and subtract. (Students</p>	<p>Mid-Module assessment</p> <p>End of module assessment</p>	

	<p>What happens when we change the order of numbers when we add (or subtract)? Why?</p> <p>How does using ten as a benchmark help us compose numbers?</p>	<p>problem.</p> <ul style="list-style-type: none"> • Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. • Understand that the 2 digits of a 2 digit number represent amounts of tens and ones. 		<p>need not use formal terms for these properties.) Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</p> <p>1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</p> <p>1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8$</p>		
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				<p>= 4); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).</p> <p>1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.</p> <p>K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</p>		
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Instructional Days	Essential Questions	Skills	Resources	Standards	Assessments	Vocabulary
<p>February 2nd- March 5th</p>	<p>How do we use measurement in everyday life?</p> <p>How can we compare and order objects by length?</p> <p>How can we use a shorter object to measure a longer one?</p> <p>How do we know if a set has more or less?</p> <p>Why are the measurements of classmates different?</p> <p>Why do people collect data?</p> <p>How/why do we organize data?</p>	<ul style="list-style-type: none"> • Order 3 objects by length; compare the lengths of 2 objects indirectly by using a third object. • Express the length of an object as a whole number of length units by layering multiple copies of a shorter object end to end; understand that the length measure of an object is the number of same size length units that span it with no gaps/overlap. • Understand the importances of lining up endpoints when comparing 	<p>NYS module 3</p>	<p>1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.</p> <p>1.MD.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <i>Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i></p> <p>1.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks.</p> <p>1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.</p>	<p>Mid-module assessment</p> <p>End of module assessment</p>	<p>Longer than</p> <p>Shorter than</p> <p>Equal in length to</p> <p>Endpoints</p> <p>Gaps</p> <p>Overlaps</p> <p>Units</p>

		<p>lengths of objects.</p> <ul style="list-style-type: none">• Be able to measure and compare using various nonstandard units of measurements.• Organize, represent and interpret data with up to three categories. Ask and answer questions about the total number of data points. How many in each category? How many more or less in one category than another?				
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Instructional Days	Essential Questions	Skills	Resources	Standards	Assessments	Vocabulary
<p>March 6th- April 20th</p>	<p>How do we count to 120 including counting on from any number? How do we read and write these numerals?</p> <p>How are tens and ones represented in each two digit number?</p> <p>How can we use less than, greater than and equal to symbols to compare two, two-digit numbers?</p> <p>How do we use place value and properties of operations to add numbers within 100?</p> <p>How can we find 10 more or 10 less, 1 more or 1 less in a number without</p>	<ul style="list-style-type: none"> Count to 120 starting at any number less than 120. Understand that the two digits of a two digit number represents tens and ones. Compare two, two digit numbers based on meaning of the tens and ones digits, recording the results of comparisons with the symbols of greater than, less than and equal to. Given a two digit number, mentally find ten more and ten less (one more and one less) than the number without having to count. Add within 100, including adding a two digit 	<p>NYS Module 4</p>	<p>1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p> <p>1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.</p> <p>1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. <i>Understand the following as special cases:</i> a. 10 can be thought of as a bundle of ten ones—called a “ten.” c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).</p> <p>1.NBT.3 Compare</p>	<p>Mid-module assessment</p> <p>End of module assessment</p>	<p>Greater than</p> <p>Less than</p> <p>Equal to</p> <p>Tens place</p> <p>Ones place</p> <p>Base ten blocks</p> <p>Place value</p> <p>Place value chart</p> <p>Hundred chart</p> <p>Dime</p> <p>Penny</p> <p>Tape diagram</p>

	<p>counting?</p> <p>How do we use place value and properties of operation to subtract multiples of 10?</p>	<p>number and a one digit number and adding a two digit number and a multiple of ten, use concrete models/drawings and strategies with place value, explain the reasoning used.</p> <ul style="list-style-type: none"> • Subtract multiples of ten in the range of 10-90, use concrete models/drawings. 		<p>two two-digit numbers based on meaning of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.</p> <p>1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</p> <p>1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p> <p>1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and</p>		
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				strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	
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Subject: Math, Module 5

Grade: First

Instructional Days	Essential Questions	Skills	Resources	Standards	Assessments	Vocabulary
April 30- May 18	<p>How do we distinguish between attributes of different shapes?</p> <p>How do we use those attributes to use and draw shapes?</p> <p>How can we compose two or three dimensional shapes to create a new shape?</p> <p>How do we tell and write</p>	<p>Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes.</p> <p>Compose two-dimensional shapes or three-dimensional shapes to create a composite shape and compose new shapes from the composite shape. Partition circles and rectangles into two and four equal shares, using the words halves, fourths, and quarters, half-of, quarter-of.</p>	NYS Module 5	<p>1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.</p> <p>1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (Students do not need to learn formal names such as “right rectangular prism.”)</p>	<p>Mid-Module Assessment 5</p> <p>End-of-Module Assessment 5</p>	<p>Two dimensional shapes-</p> <p>Circle</p> <p>Half-circle</p> <p>Quarter-circle</p> <p>Hexagon</p> <p>Rectangle</p> <p>Rhombus</p> <p>Square</p> <p>Trapezoid</p> <p>Triangle</p> <p>Three dimensional shapes-</p> <p>Cone</p> <p>Sphere</p>

	<p>time on different types of clocks?</p> <p>How do we recognize, identify, and name coins and their values?</p> <p>How can we separate circles and rectangles into two or four equal shares?</p> <p>How can we describe these shares?</p>			<p>1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.</p> <p>1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks. Recognize and identify coins, their names, and their values.</p>		<p>Cylinder</p> <p>Rectangular prism</p> <p>Cube</p> <p>Attributes</p> <p>Fourths</p> <p>Quarter</p> <p>Quarter of</p> <p>Half past</p> <p>Halves</p> <p>half</p> <p>Hour</p> <p>Minute</p> <p>O'clock</p> <p>clock</p>
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Subject: Math, Module 6

Grade: First

Instructional Days	Essential Questions	Skills	Resources	Standards	Assessments	Vocabulary
May 21-June 21	How can we use objects, drawings, and equations to solve addition and subtraction	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from,	NYS Module 6	Extend the counting sequence. 1.NBT.1 Count to 120, starting at any number less than 120. In this range,	Mid Module test 6 End of Module test 6	dime nickel penny Quarter

	<p>word problems to 20?</p> <p>How do we count to 120, including counting on from any number?</p> <p>How do we read and write these numerals?</p> <p>How are tens and ones represented in each two-digit number?</p>	<p>putting together, taking apart and comparing, with unknowns in all positions.</p> <p>Count to 120, starting at any number less than 120.</p> <p>Understand that the two digits of a two-digit number represent tens and ones.</p> <p>Compare two two-digit numbers based on meaning of the tens and ones digits, recording the results of comparisons with the symbols $<$, $>$, $=$.</p> <p>Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of ten, using concrete models or drawings and strategies based on place value, properties of operations, and/or</p>		<p>read and write numerals and represent a number of objects with a written numeral.</p> <p>Understand place value.</p> <p>1.NBT.2</p> <p>Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones – called a “ten.” c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).</p> <p>1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.</p> <p>Use place value understanding and properties of operations to add and subtract.</p> <p>1.NBT.4 Add within 100, including adding a two-digit number</p>		<p>Less than</p> <p>Greater than</p> <p>Equal to</p> <p>Tape diagram</p>
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		<p>the relationship between addition and subtraction; relate the strategy to written method and explain the reasoning used.</p> <p>Given an two-digit number, mentally find ten more or ten less than the number, without having to count; explain the reasoning used.</p> <p>Subtract multiples of ten in the range 10-90 from multiples of in the range 10-90, using concrete models or drawings and strategies based on place value, properties of operations, and/or relationship between addition or subtraction; relate the strategy to a written method and explain the reasoning used.</p>		<p>and a one-digit number, and adding a two digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</p> <p>1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count: explain the reasoning used.</p> <p>1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of</p>		
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				<p>operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p> <p>Tell and write time and money.</p> <p>1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks. Recognize and identify coins, their names, and their value.</p>		
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