| Content Area: Mathematics | Course: Mathematics $\quad$ Grade Level: 1 |
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|  | R14 The Seven Cs of Learning <br> Collaboration |
| Unit Titles | Length of Unit |
| Unit 1-Mastering Addition and Subtraction Within Ten | 5 weeks |
| Unit 2-Early Place Value/Addition and Subtraction Within Twenty | 7 weeks |
| Unit 3-Geometry and Time | 6 weeks |
| Unit 4 Extending Place Value | 5 weeks |
| Unit 5-Measurement | 5 weeks |
| Unit 6-Addition and Subtraction Within 100 | 5 weeks |


| Strands | Course Level Expectations |
| :---: | :---: |
| Number and Operations in Base-Ten | 1. Extend the counting sequence. <br> 2. Understand place value. <br> 3. Use place value understanding and properties of operations to add and subtract. <br> 4. Develop, discuss and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10 . <br> 5. Compare whole numbers at least to 100. <br> 6. Think of whole numbers in terms of tens and ones. |
| Operations and Algebraic Thinking | 1. Use a variety of models to represent and solve problems involving addition and subtraction. <br> 2. Understand and apply properties of operations and the relationship between addition and subtraction. <br> 3. 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. <br> 4. Work with addition and subtraction equations. |


| Strands | Course Level Expectations |
| :--- | :--- |
| Geometry | 1. Reason with shapes and their attributes, and determine how shapes are alike and different. <br> 2. Recognize shapes from different perspectives and orientations. <br> 3. Compose and decompose plane or solid figures (e.g., put two triangles together to make a <br> quadrilateral). |
| 4. Build understanding of part-whole relationships. |  |


| Unit Title | Mastering Addition and Subtraction Within Ten | Length of Unit | 5 weeks |
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| Inquiry Questions <br> (Engaging \& Debatable) | • What is the relationship between counting, addition and subtraction? <br> - How can we use different strategies to solve equations for unknown quantities to ten? <br> - What is the role of the equal sign? <br> - How can we represent addition and subtraction problem situations? |
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| Standards:: | Operations and Algebraic Thinking <br> - 1.0A.A1, 1.0A.B3, 1.0A.B4, 1.0A.C5, 1.0A.C6, 1.0A.D7, 1.0A.D8 |
|  <br> Concepts | - Relationship between addition and subtraction <br> - Meaning of the equal sign <br> - Addition and subtraction strategies |
| Vocabulary | Addition, subtraction, adding to, taking from, putting together, taking apart, comparing, equations, <br> symbol, make ten, addend, counting on, equivalent, sums, doubles, equal, true, false, manipulatives |

Standards based on Common Core State Standards
For more information visit: http://www.corestandards.org/Math/Content/1/introduction/

| Unit Title | Mastering Addition and Subtraction Within Ten | Length of Unit | 5 weeks |
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## Critical Content:

My students will Know...

- Numbers within 10 can be counted and compared
- Different combinations can make 10.
- Subtraction can be represented as an unknown addend addition problem
- Recognize and interpret different situations for addition and subtraction
- The equal sign means "is the same as" and does not always come before the sum or difference.


## Key Skills:

My students will be able to (Do)...

- Linking equations to concrete materials, drawings, and other representations of problem situations
- Students count on to add and count back to subtract.
- Model and solve addition and subtraction stories.
- Find the number that makes ten when added to a given number 1-9
- Add and subtract within 10 using drawings, objects, 10 frames, number lines, and properties of operations
- Fluently add and subtract within 10

| Assessments: | Performance task focused on understanding of addition and subtraction situations, efficiency of <br> strategies used to solve addition and subtraction problems, and decomposition ability. |
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| Teacher <br> Resources: | MyMath, Engage NY, 3 Act Task Bank, CCSS aligned anchor tasks, Illustrative Mathematics, <br> Georgia Department of Education CCSS aligned tasks, North Carolina Department of Instruction, CCSS <br> aligned tasks. |


| Unit Title | Early Place Value/Addition and Subtraction Within <br> Twenty | Length of Unit | 7 weeks |
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| Inquiry Questions <br>  <br> Debatable) | - What is the relationship between counting, addition and subtraction? <br> - How can we use different strategies to solve equations for unknown quantities to twenty? <br> - What is the role of the equal sign? <br> - How can we represent addition and subtraction problem situations? <br> - How can we use base-ten methods to help with addition, subtraction, counting and comparing numbers? |
| :---: | :---: |
| Unit Strands \& Standards | Operations and Algebraic Thinking <br> - 1.0A.A1, 1.0A.A2, 1.0A.B3, 1.0A.B4, 1.0A.C5, 1.0A.C6, 1.0A.D7, 1.0A.D8, 1.NBT.B2, 1.NBT.B3 |
| Concepts | - Relationship between addition and subtraction <br> - Meaning of the equal sign <br> - Addition and subtraction strategies <br> - Situations and contexts involving addition and subtraction <br> - Base ten understanding <br> - Unitizing |
| Vocabulary | Addition, subtraction, adding to, taking from, putting together, taking apart, compare, equations, symbol, make ten, addend, unknown addend, counting on, equivalent, sums, doubles, doubles plus/minus one, number line, equal, true, false, manipulatives, tens, ones, place value, compare, greater than, less than |


| Unit Title | Early Place Value/Addition and Subtraction Within Twenty | Length of Unit | 7 weeks |
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## Critical Content: My students will Know...

- A group of ten ones can be referred to a unit called a "ten"
- Different combinations can make 10.
- Subtraction can be represented as an unknown addend addition problem
- Recognize and interpret different situations for addition and subtraction
- The equal sign means "is the same as" and does not always come before the sum or difference.
- Numbers 11-19 are a ten and some number of ones.
- 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.
- Two digits of a two-digit number represent amounts of tens and ones


## Key Skills: My students will be able to (Do)...

- Link equations to concrete materials, drawings, and other representations of problem situations
- Model and solve addition and subtraction stories.
- Find the number that makes ten when added to a given number 1-9
- Add and subtract within 20 using drawings, objects, 10 frames, number lines, properties of operations, and decomposition strategies
- Compare two two-digit numbers based on meanings of the tens and ones digits
- Determine the unknown number in an addition or subtraction equation

| Assessments: | Performance task focused on understanding of addition and subtraction situations, efficiency of <br> strategies used to solve addition and subtraction problems, and decomposition and unitizing ability. |
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| Teacher <br> Resources: | MyMath, Engage NY, 3 Act Task Bank, CCSS aligned anchor tasks, Illustrative Mathematics, <br> Georgia Department of Education CCSS aligned tasks, North Carolina Department of Instruction, CCSS <br> aligned tasks. |


| Unit Title | Geometry and Time | Length of Unit | 6 weeks |
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| Inquiry Questions (Engaging \& Debatable) | - How can we distinguish, describe and classify shapes using defining attributes? <br> - How can we compose shapes to make new shapes? <br> - How can we partition shapes to make equal shares? <br> - How do we relate time to our daily activities? |  |  |
| Standards | Geometry and Measurement and Data <br> - 1.G.A1, 1.G.A2, 1.G.A3, 1.MD.B3 |  |  |
| Unit Strands \& Concepts | - Geometric versus non geometric attributes <br> - Clocks are used to read time of the day. <br> - Part-whole relationships |  |  |
| Vocabulary | Attributes, closed shapes, sides, corners, rectangles, squares, trapezoids, triangles, rhombus halfcircles, quarter circles, cubes, right rectangular prisms, cones, cylinders, partition, halves, fourths, quarters, half of, fourth of, quarter of, two of the shares, four of the shares, equal shares, hours, half hours, digital clock, time |  |  |


| Unit Title | Geometry and Time | Length of Unit | 6 weeks |
| :--- | :--- | :--- | :--- |

## Critical Content: <br> My students will Know...

- Part-whole relationships as well as the properties of the original and composite shapes.
- Plane shapes and solid figures are found all around us.
- Decomposing into more equal shares creates smaller shares
- Recognize the shape by its attributes not by its orientation
- Relate time to daily activities


## Key Skills:

My students will be able to (Do)...

- Describe and classify shapes according to geometric attributes
- Differentiate between geometrically defining and non-defining attributes
- 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.
- Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters
- Tell and write time in hours and half-hours using analog and digital clocks.

| Assessments | Performance task focused on classifying two and three dimensional shapes, composing two and three <br> dimensional shapes, partitioning shapes, and telling time. |
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| Teacher <br> Resources: | MyMath, Engage NY, 3 Act Task Bank, CCSS aligned anchor tasks, Illustrative Mathematics, <br> Georgia Department of Education CCSS aligned tasks, North Carolina Department of Instruction, CCSS <br> aligned tasks. |



| Unit Title | Extending Place Value | Length of Unit | 5 weeks |
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| Critical Content: |
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| My students will Know... |

- Relate counting to cardinality
- Place value is used to help count, compare and order numbers.
- A group of ten ones can be referred to a unit called a "ten"
- Numbers 11-19 are a ten and some number of ones.
- 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).
- Two digits of a two-digit number represent amounts of tens and ones


## Key Skills:

My students will be able to (Do)...

- Count, read, and write numbers to 120
- Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 using concrete models, drawings, and strategies based on place value and the properties of operations
- Represent numbers as tens and ones
- Decompose one and two-digit numbers in different ways (i.e. 43= 4 tens and 3 ones, 43 ones, 3 tens and 13 ones, etc.)

| Assessments: | Performance task focusing on unitizing, base ten patterns, and decomposition ability. |
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| Teacher <br> Resources: | MyMath, Engage NY, 3 Act Task Bank, CCSS aligned anchor tasks, Illustrative Mathematics, <br> Georgia Department of Education CCSS aligned tasks, Fosnot Organizing and Collecting Unit, North <br> Carolina Department of Instruction, CCSS aligned tasks. |


| Unit Title | Measurement | Length of Unit | 5 weeks |
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| Inquiry Questions <br> (Engaging \& Debatable) | - How can measurement using standard and nonstandard units of measure help us to find and <br> compare length? <br> - How do we relate time to our daily activities? <br> - How can we organize, represent, and interpret data to ask and answer questions? |
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| Standard | Measurement and Data <br> - 1.MD.A1, 1.MD.A2, 1.MD.B3, 1.MD.C4 |
|  <br> Concepts | - Transitivity principle <br> $\bullet$ <br> - Seriation <br> Conservation of length |
| Vocabulary | Lengths, measure, compare, longer, shorter, gaps, overlaps, end to end, end-points <br> Time, hour, half hour, analog clock, digital clock, data, category, question, how many, how many more, <br> how many less, data points |


| Unit Title | Measurement | Length of Unit | 5 weeks |
| :--- | :--- | :--- | :--- |


| Critical Content: My students will Know... | Key Skills: My students will be able to (Do)... |
| :---: | :---: |
| - Objects can be measured through both direct and indirect comparison <br> - Length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <br> - The size of the unit of measure must be considered when comparing lengths <br> - An object retains its length regardless of its position, (two sticks of the same length are still the same length even if one is vertical and one is horizontal) <br> - A few big objects fit into small spaces and many small objects fit into big spaces. <br> - In order to accurately compare length one must line up the end of the object with the unit used to measure | - Order objects by length <br> - Compare the length of two objects using indirect comparison (a third object) <br> - 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 <br> - Make comparisons about the number of data points in given categories <br> - Tell time to the hour and half an hour |


| Assessments: | Performance task focusing on measuring length through direct and indirect comparison, seriation, <br> comparing and analyzing data sets, and telling time. |
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| Teacher <br> Resources: | MyMath, Engage NY, 3 Act Task Bank, CCSS aligned anchor tasks, Illustrative Mathematics, <br> Georgia Department of Education CCSS aligned tasks, North Carolina Department of Instruction, CCSS <br> aligned tasks. |


| Unit Title | Addition and Subtraction Within 100 | Length of Unit | 5 weeks |
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| Inquiry Questions <br> (Engaging \& Debatable) | - How can we relate the properties of addition and subtraction to support addition and <br> subtraction within 100? <br> - How can we use the equal sign to determine if equations are true or false? <br> - How can we use different strategies to solve and explain addition and subtraction problems in <br> terms of tens and ones? |
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| Standards | Operations and Algebraic Thinking <br> $\bullet$ 1.OA.B3, 1.OA.B4, 1.0A.D7, 1.NBT.C4, 1.NBT.C5, 1.NBT.C6 |
|  <br> Concepts | - Unitizing <br> - Composing and decomposing <br> - Base ten and place value patterns <br> - Relations between addition and subtraction <br> - Meaning of the equal sign <br> - Addition and subtraction strategies <br> - Situations and contexts involving addition and subtraction |
| Vocabulary | Addition, subtraction, unknown addend, equal, true, false, one-digit number, two-digit number, ten, <br> place value, make ten, ten more, ten less, |


| Addition and Subtraction Within 100 | (100 Length of Unit $^{\text {a }} 5$ weeks |
| :---: | :---: |
| Critical Content: My students will Know... | Key Skills:My students will be able to (Do)... |
| - Whole numbers can be added and subtracted with or without regrouping. <br> - In adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. <br> - Subtraction can be represented as an unknown addend addition problem <br> - Recognize and interpret different situations for addition and subtraction <br> - The equal sign means "is the same as" and does not always come before the sum or difference. | - Add within 100 using concrete models, drawings, and strategies based on place value and the properties of operations <br> - Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. <br> - Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 using concrete models, drawings, and strategies based on place value and the properties of operations <br> - Link equations to concrete materials, drawings, and other representations of problem situations <br> - Model and solve addition and subtraction stories |


| Assessments: | Performance task focused on composing and decomposing, unitizing, base ten patterns, and <br> understanding addition and subtraction situations. |
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| Teacher <br> Resources: | MyMath, Engage NY, 3 Act Task Bank, CCSS aligned anchor tasks, Illustrative Mathematics, <br> Georgia Department of Education CCSS aligned tasks, North Carolina Department of Instruction, CCSS <br> aligned tasks. |

