## Region 14 Schools <br> Inspiring Excellence

| Content Area: Mathematics | Course: Mathematics | Grade Level: <br> Kindergarten |
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|  | R14 The Seven Cs of Learning |  |


| Strands | Course Level Expectations |
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| Counting and <br> Cardinality | 1. Know number names and the count sequence. <br> 2. Count to tell the number of objects. <br> 3. Compare numbers. <br> 4. Use numbers to represent quantities and to solve problems including counting objects in <br> a set, counting out a given number of objects, comparing sets or numerals, and simple <br> joining and separating situations with sets of objects and equations. |
| Number and <br> Operations in <br> Base-Ten | 1. Work with numbers 11-19 to gain foundations for place value. |
| Geometry | 1. Identify and describe 2 and 3 dimensional shapes presented in a variety of sizes and <br> 2. Analyze, compare, create, and compose shapes. <br> 3. Use basic shapes to model objects in their environment, and construct more complex shapes. |
| Measurement and <br> Data | 1. Describe and compare measurable attributes. <br> 2. Classify objects and count the number of objects in each category. |

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| Unit Title | Numbers to Ten (Part A Numbers to 5) | Length of Unit | 3 weeks |
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| Inquiry Questions <br>  <br> Debatable) | • How can we use number to represent and compare different quantities? <br> - How can numbers be put together and taken apart? |
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| Standards* | Counting and Cardinality <br> - K.CC.A2, K.CC.A3, K.CC.B4, K.CC.B5, K.CC.C6, K.CC.C7, K.OA.A3 |
| Strands \& Concepts | - Objects can be counted using numbers. <br> - When counting say the number names in standard order and pair each number with one <br> object. <br> - Each number said can be matched with a written numeral. <br> - Objects can have attributes that are the same or different. <br> - Then last number said tells the number of objects in a given set. |
| Key Vocabulary | Compare, how many, zero, one, two, three, four, five, set, same, different, more than, less than, <br> count, number, make five, five frame |


| Unit Title | Numbers to Ten (Part A Numbers to 5) | Length of Unit | 3 weeks |
| :--- | :--- | :--- | :--- |


| Critical Content: <br> My students will Know... | Key Skills: <br> My students will be able to (Do)... |
| :---: | :---: |
| - Connect counting to cardinality. <br> - Groups that "look" more spread out than other groups, don't necessarily contain more objects <br> - Recognize and interpret different situations for addition and subtraction (Add To with Result Unknown; Take From with Result Unknown; and Put Together/Take Apart with Total Unknown and Both Addends Unknown) <br> - Numbers can be composed and decomposed in multiple ways | - Count groups of 0-5 <br> - Write numerals 0-5 <br> - Pair number names with numerals <br> - Compare two sets of objects or two numbers and determine which is greater or less than. <br> - Choose the number that is one more/one less than a given quantity using fingers or objects. <br> - Find the number that makes five when added to a given number 1-4. |


| Assessments: | Performance task focusing on one to one correspondence, cardinality, subitizing, and early <br> 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 | Numbers to Ten (Part B Numbers to 10) | Length of Unit | 3 weeks |
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## Critical Content: <br> My students will Know...

- Connect counting to cardinality.
- Groups that "look" more spread out than other groups, don't necessarily contain more objects
- Recognize and interpret different situations for addition and subtraction (Add To with Result Unknown; Take From with Result Unknown; and Put Together/Take Apart with Total Unknown and Both Addends Unknown)
- Numbers can be composed and decomposed in multiple ways


## Key Skills:

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

- Count groups of 0-10
- Write numerals 0-10
- Pair number names with numerals
- Compare two sets of objects or two numbers and determine which is greater or less
- Choose the number that is one more/one less than a given quantity using fingers or objects.
- Find the number that makes ten when added to a given number 1-9

| Assessments: | Performance task focusing on one to one correspondence, cardinality, subitizing, and early <br> 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 | Geometry | Length of Unit | 5 weeks |
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| Inquiry Questions <br>  <br> Debatable) | - How can we analyze, compare and classify shapes? <br> - How can shapes be created and composed? <br> - How do shapes translate into our physical world? |
| :---: | :---: |
| Standards | Geometry <br> - K.G.A1, K.G.A2, K.G.A3, K.G.A4, K.G.A5, K.G.A6 |
| Strands \& Concepts | - Shapes can be found in the world around us. <br> - Each shape or solid figure has its own set of attributes. <br> - Shapes can be combined to composed to form various models, pictures, and patterns <br> - Objects can be described in terms of their relative position to one another as well as their attributes |
| Key Vocabulary | Square, circle, triangle, rectangle, hexagon, cube, cone, cylinder, sphere, flat, solid, side, corner, above, below, beside, in front of, next to |


| Unit Title | Geometry | Length of Unit | 5 weeks |
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## Critical Content: <br> My students will Know...

- Attributes can be used to classify/sort into groups, and create and/or extend simple patterns
- Simple shapes can be combined to create larger, more complex shapes.
- Orientation does not have an effect on the attributes of a given shape
- Shapes can be described by their attributes and relative position


## Key Skills:

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

- Recognize, name and describe basic solid and flat shapes and discuss the relationship between solid and flat shapes
- Draw flat shapes and make models of flat shapes
- Classify objects using one or more attributes and identify objects that do not belong to a set
- Describe objects in the environment using names of shapes,
- Describe the relative positions of these objects using terms such as above, below, beside, in front of, behind and next to

| Assessments: | Performance task focused on drawing and classifying shapes based on their basic attributes as well as <br> recognizing the relative position of objects in given set. |
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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 | Numbers 11-20 | Length of Unit | 4 weeks |
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| Inquiry Questions <br>  <br> Debatable) | - How can numbers be put together and taken apart to gain foundations for place value? <br> - How can we use number to represent and compare different quantities? <br> - How can our actions impact the number of objects in a set? |
| :---: | :---: |
| Standards | Counting and Cardinality and Number and Operations in Base Ten <br> - K.CC.A1, K.CC.A2, K.CC.A3, K.CC.B4, K.CC.B5, K.CC.B6, K.NBT.A1 |
| Strands \& Concepts | - The last number said tells the number of objects in a given set. <br> - The arrangement of a number of objects in a set does not change the total number of objects. <br> - When counting say the number names in standard order and pair each number with one object. Each number said can be matched with a written numeral. <br> - Numbers from 11-19 are teen or 10+ numbers. |
| Key Vocabulary | Count, ones, tens, quantities, groups, same as, how many, how many in all, greater than, less than, equal to, compare, set, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty |


| Unit Title | Numbers 11-20 | Length of Unit | 4 weeks |
| :--- | :--- | :--- | :--- |

## Critical Content:

## My students will Know...

- Recognize teen numbers as a set of ten plus additional ones
- Each successive number name refers to a quantity that is one larger
- Changing the arrangement of a set of objects does not change the total
- Connect counting to cardinality.
- Groups that "look" more spread out than other groups, don't necessarily contain more objects.
- Numbers can be composed and decomposed in multiple ways


## Key Skills:

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

- Count to 20
- Count groups of objects 10-20, and read and write numbers 10-20
- Compare and order groups of up to 10 objects
- Recognize one more than and one less than in a given set
- Recognize fewer/less and more/most
- Combine sets to find how many in all
- Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

| Assessments: | Performance task focusing on one to one correspondence, cardinality, early decomposition ability, <br> additive reasoning, and ability to unitize. |
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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 10 | Length of Unit | 6 weeks |
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| Inquiry Questions <br> (Engaging \& Debatable) | - What is the relationship between addition and subtraction? <br> • How can we use different strategies to add and subtract within ten? |
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| Standards | Operations and Algebraic Thinking <br> $\bullet$ <br> K.OA.A1, K.OA.A2, K.OA.A3, K.OA.A4, K.OA.A.5 |
| Strands \& Concepts | - Addition and subtraction can be shown with objects, pictures, models, numbers and words. <br> - Addition is the joining of two sets or the addition of objects to an existing set. <br> - Subtraction stories can represent situations where a set is taken away, or where two sets are <br> compared. <br> - Objects, drawings, numbers and symbols can be used to represent addition or subtraction <br> situations. |
| Key Vocabulary | Addition, putting together, adding to, subtraction, taking apart, taking from, expression, equation, <br> word problem, make ten, ten frame, number line |


| Unit Title | Addition and Subtraction Within 10 | Length of Unit | 6 weeks |
| :--- | :--- | :--- | :--- |

## Critical Content:

My students will Know...

- Recognize and interpret different situations for addition and subtraction (Add To with Result Unknown; Take From with Result Unknown; and Put Together/Take Apart with Total Unknown and Both Addends Unknown)
- Numbers can be composed and decomposed in multiple ways
- Subtraction can be interpreted as an unknown addend problem


## Key Skills:

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

- Count on and back using fingers, object, and number lines
- Compose and decompose numbers through 10
- Combine sets to make totals between 5-10
- 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 5
- The equal sign means, "is the same as" and does not always come before the sum or difference.

| Assessments: | Performance task focusing on one to one correspondence, cardinality, early decomposition ability, <br> additive reasoning, and ability to unitize. |
| :--- | :--- |
| 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 | Developing Place Value Concepts (Counting to 100) | Length of Unit | 6 weeks |
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| Inquiry Questions (Engaging \& Debatable) | - How can place value concepts (repeating number patterns) help with counting to one hundred by tens and ones from any given number? <br> - How can we use strategies to count to 100 , and match each number said to a given numeral? |  |  |
| Standards | Counting and Cardinality <br> - K.CC.A1, K.CC.A2, K.CC.B. 4 |  |  |
| Strands \& Concepts | - The last number said tells the number of objects in a given set. <br> - When counting say the number names in standard order and pair each number with one object. <br> - Each number said can be matched with a written numeral. <br> - The counting sequence has many repeating patterns. <br> - Large numbers can be counted in groups of ten as well as by ones. |  |  |
| Key Vocabulary | Numbers to 100, ten, twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred, fewer, less, more, most, repeating patterns, tens, ones, place value |  |  |


| Unit Title | Developing Place Value Concepts (Counting to 100) | Length of Unit | 6 weeks |
| :--- | :--- | :--- | :--- |


| Critical Content: <br> My students will Know... | Key Skills: <br> My students will be able to (Do)... |
| :---: | :---: |
| - Understand fewer/less and more/most <br> - Each successive number name refers to a quantity that is one larger <br> - Connect counting to cardinality. <br> - When counting by 10 the next number in the sequence refers to a quantity that is 10 more (or one more group of ten) than the previous | - Rote count to 100 <br> - Count by 10 to 100 <br> - Recognize teen numbers as a set of ten plus additional ones <br> - Use patterns to count from any given number <br> - Sequence numbers from 1 to 100 <br> - Count forward beginning from any given number within a known sequence |


| Assessments: | Performance task focusing on cardinality, additive reasoning, ability to unitize, and base ten pattern <br> recognition. |
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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 | Measurement | Length of Unit | 6 weeks |
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| Inquiry Questions <br> (Engaging \& Debatable) | - How can we describe and compare several attributes of given objects? <br> - Wow can we directly compare two objects with a measurable attribute in common? <br> - What factors impact length? |
| :--- | :--- | :--- |
| Standards | Measurement and Data <br> - K.MD.A1, K.MD.A2, K.MD.B3 |
| Strands \& Concepts | - Objects can be classified and arranged according to different attributes. <br> - Conservation of length <br> - Measurement by direct comparison <br> Objects can be described and distinguished by their attributes and characteristics |
| Key Vocabulary | Measurement, describe, compare, length, weight, attributes, more of, less of, sort, category, big, small, <br> long, tall, high |

Region 14 Math Curriculum: Grade Kindergarten: BOE Approved: DRAFT

| Unit Title | Measurement | Length of Unit | 6 weeks |
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## Critical Content: <br> My students will Know...

- 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.)
- A few big objects fit into small spaces and many small objects fit into big spaces.
- Length as a means of comparison
- In order to accurately compare length one must line up the end of the object with the unit used to measure


## Key Skills:

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

- Order objects by size, length, and weight
- Use nonstandard units to measure and compare lengths, heights, weights and capacities
- Compare objects by different attributes
- distinguish, label, and describe several measurable attributes of a single object
- Classify objects by different categories
- Arrange classified objects by count

| Assessments: | Performance task focusing on measurement as comparison, different types of measurement (i.e. length, <br> height, capacity), additive reasoning, and ability to sort and classify. |
| :--- | :--- |
| 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 aligned <br> tasks. |

