## Math Pacing Guide

Kindergarten

| Processes, Content Statements \& Expectations (Disciplinary Knowledge) | Math Chapter | Resources | Vocabulary | Assessment |
| :---: | :---: | :---: | :---: | :---: |
| GLCE's <br> Geometry: Create, explore and describe attributes <br> G.GS.00.02 Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group. <br> Common Core <br> K.MD. 3 Classify objects into given categories; count the number of objects in each category and sort the categories by count. | Chapter One <br> Classification, Positions, and Patterns <br> 1.1 Alike and Different <br> 1.2 Sort by Color <br> 1.3 Sort by Size <br> 1.4 Sort by Shape <br> 1.5 Sort by Kind <br> 1.6 Sort by Own Rule <br> 1.7 Problem Solving: using Logical Reasoning | Chapter One Student Pages Chapter One Practice Pages <br> Colored cubes <br> Attribute blocks <br> Assorted pasta (lesson 1. 4) <br> Literature Connections: <br> Brown Bear <br> By Eric Carle <br> Who Said Red <br> (Hoghton Mifflin Reading book) <br> Five Creatures <br> By Emily Jenkins <br> Mouse Paint <br> By Ellen Stoll Walsh | alike different sort big small circle triangle square rectangle | Chapter One Test <br> Observation <br> Kindergarten <br> Assessment for shapes |


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| GLCE's <br> Number and Operations: Explore number patterns <br> N.MR.00.10 Create, describe, and extend simple number patterns <br> Geometry: Explore geometric patterns G.GS.00.03 Create, describe, and extend simple geometric patters <br> Common Core <br> K.MD. 3 Classify objects into given categories; count the number of objects in each category and sort the categories by count. <br> K.G. 1 Describe objects in the environment using names of shapes, describe the relative position of these objects using terms such as above, below, beside, in front of, behind and next to. | Chapter Two <br> Positions and Patterns <br> 2.1 Top, middle, bottom <br> 2.2 Before, after, between <br> 2.3 left and right <br> 2.4 Inside and outside <br> 2.5 More position words <br> 2.6 Patterns with Sounds and Motions <br> 2.7 Extend Patterns <br> 2.8 Translate Patterns <br> 2.9 Problem Solving: use a Pattern | Chapter Two Student Pages <br> Chapter Two Practice Pages <br> Colored cubes <br> Snap cubes <br> Beads (pattern bracelets) <br> Attribute blocks <br> Games: <br> Simon Says <br> Musical chairs <br> Musical Connections: <br> Head, shoulders, knees and toes <br> The Bunny Hop <br> Hokey, Pokey | Top <br> Middle <br> Bottom <br> Before, After <br> Between <br> Left, Right <br> Inside <br> Outside over, under on, up, down on top of pattern | Chapter Two Test Observation <br> Student creates an $A B$, $\mathrm{ABB}, \mathrm{AAB}$, and ABC pattern |


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| GLCE's <br> Number and Operations: Count, write, and order numbers <br> N.ME.00.02 Use one-to-one correspondence to compare and order sets of objects to 30 using phrases such as "same number", "more than", or "less than"; use counting and matching. <br> Common Core <br> K.CC. 6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. | Chapter Three <br> Comparing Sets, Data, and Graphing <br> 3.1 Match One to One <br> 3.2 Same Number <br> 3.3 More <br> 3.4 Fewer <br> 3.5 Sort and Graph <br> 3.6 Make a Real Graph <br> 3.7 Pictographs <br> 3.8 Problem Solving: use a graph | Chapter 3 student pages <br> Chapter 3 practice pages <br> Workmat 5 (ten frame) <br> Two-color counters <br> Two-color spinners <br> Snap cubes <br> Balance (from science kits) <br> Enrichment activities: <br> Graph favorite color <br> Graph how I get to school <br> Graph M\&M's (individually) <br> Introduce weather graph and calendar time <br> Literature Connections: <br> A Pair of Socks <br> By Stuart Murphy <br> A Tree for Me <br> By Nancy Van Laan | One-to-one <br> Same number <br> More <br> Fewer <br> Sort <br> Graph | Chapter 3 Test <br> Observation <br> Student creates a graph using a handful of M\&Ms |


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| GLCE's <br> Number and Operations: Count, write, and order numbers <br> N.ME. 00.01 Count objects in sets up to 30 <br> N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent. <br> Common Core <br> K.CC. 3 Write numbers from 0-20. Represent a number of objects with a written numeral 020 | Chapter Four: <br> Represent and Read Numbers 0-5 <br> 4.1 One and Two <br> 4.2 Three <br> 4.3 Four <br> 4.4 Five <br> 4.5 Zero <br> 4.6 Using 0-5 <br> 4.7 Problem Solving: use logical reasoning <br> 4.8 Ordinal numbers | Chapter 4 student pages <br> Chapter 4 practice pages Additional number writing practices sheets (math file) <br> Dominos <br> Snap cubes <br> Counters <br> Laminated numbers <br> build number line 0-5 with students holding the numbers <br> After numbers 0-5 are learned, introduce the touch math numbers 1-5 <br> Literature Connections: <br> Mouse Count <br> By Ellen Walsh <br> One Fish, Two Fish, Red <br> Fish, Blue Fish <br> By Dr. Seuss | One two Three four Five zero More fewer Between First second Third fourth Fifth | Chapter Four Test Observation <br> Students identify numbers 0-5 from flash cards <br> Students write numbers $0-5$ in order from memory. <br> Student represent a number with a picture |


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| GLEC's <br> Geometry: Explore geometric patterns G.GS.00.03 Create, describe, and extend simple geometric patters <br> Common Core <br> K.G. 2 Correctly name shapes regardless of their orientations or overall size. <br> K.G. 3 Identify shapes as two-dimensional or three-dimensional. <br> K.G. 5 Model shapes in the world by building shapes from components and drawing shapes. <br> K.G. 6 Compose simple shapes to form larger shapes. | Chapter Five: <br> Plane Shapes and Fractions <br> 5.1 Circle and Rectangle <br> 5.2 Square and Triangle <br> 5.3 Patterns with Shapes and Positions <br> 5.4 Combine Plane Shapes <br> 5.5 Symmetry <br> 5.6 Equal Parts <br> 5.7 Halves <br> 5.8 Problem Solving: Use a Picture <br> 5.9 Likely and Unlikely <br> 5.10 Predict and Record Onteomes | Chapter 5 student pages <br> Chapter 5 practice pages <br> Use additional math resources for shapes. <br> Teach how to make tally marks for numbers 1-5 <br> Activities: <br> Shape scavenger hunt Symmetry-Name monsters How to make a monster with shapes <br> Literature Connections: <br> The Shape of Things By Dayle Ann Dodds Bear in a Square By Stella Blackstone Shapes, Shapes, Shapes By Tana Hoban | Circle <br> Rectangle <br> Square <br> Triangle <br> Up <br> Down <br> Right <br> Left <br> Symmetry <br> Equal parts <br> Halves <br> Likely <br> unlikely <br> Tally | Chapter 5 Test Observation <br> Identify and draw a circle, rectangle, square, and triangle (kindergarten assessment) <br> Recognize symmetry |


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| GLCE's <br> Geometry: Create, explore, and Describe shapes <br> G.GS.00.01 Relate familiar three-dimensional objects inside and outside the classroom to their geometric name <br> Common Core <br> K.G. 2 Correctly name shapes regardless of their orientations or overall size. <br> K.G. 3 Identify shapes as two-dimensional or three-dimensional. <br> K.G. 4 Analyze and compare two and three dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts and other attributes. <br> K.G. 5 Model shapes in the world by building shapes from components and drawing shapes. | Chapter Six: <br> Solid Shapes <br> 6.1 Sort Solid Shapes <br> 6.2 Identify Solid Shapes <br> 6.3 Build Solid Shapes <br> 6.4 Surfaces of Solid Shapes <br> 6.5 Combine Solid Shapes <br> 6.6 Problem-Solving: Make a graph | Chapter 6 student pages <br> Chapter 6 practice pages <br> Solid Shapes <br> Solid Shapes song on math <br> CD <br> Solid Shapes scavenger hunt <br> Marshmallows and toothpicks to create 3D shapes <br> Play Dough | Stack <br> Roll <br> Slide <br> Cube <br> Sphere <br> Pyramid <br> Rectangular prism <br> Cone <br> Cylinder <br> Surface <br> Graph | Chapter 6 Test <br> Observation <br> Student identifies each solid shape by name (kindergarten assessment) |


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| GLCE's <br> Number and Operation: Count, write, and order numbers <br> N.ME.00.01 Count objects in sets up to 30 <br> N.ME.00.03 Compare and order numbers to 30 using phrases as "more than" or "less than" N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent <br> Number and Operation: Explore number patterns <br> N.MR.00.10 Create, describe, and extend simple number patterns <br> Common Core <br> K.CC. 7 Compare two numbers between 1 and 10 presented as written numerals. <br> K.CC. 3 Write numbers from 0-20. Represent a number of objects with a written numeral 0 20 <br> K.CC. 4 Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number name in the standard order, pairing each object with one and only one number name and each number name with one and only one object. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. Understand that each successive number name refers to a quantity that is one later. | Chapter Seven: <br> Represent and Read Numbers 6-12 <br> 7.1 Six <br> 7.2 Seven <br> 7.3 Eight <br> 7.4 Nine <br> 7.5 Ten <br> 7.6 Problem Solving: Use a Pattern <br> 7.7 Eleven <br> 7.8 Twelve <br> Chapter Eight: <br> Using Numbers 0-12 <br> 8.1 Names for 1-12 <br> 8.2 Order Number to 12 <br> 8.3 Sort by Number <br> 8.4 More and Fewer <br> 8.5 Estimate Quantities <br> 8.6 Problem Solving: Act it Out | Chapter 7 \& 8 student pages <br> Chapter $7 \& 8$ practice pages Workmats <br> Additional number writing practice pages (Math File) <br> Counters <br> Ten Frames <br> Snap cubes <br> Dice Roll Race <br> Laminated dot cards, digit cards, and number word cards <br> Create a number line with 012 laminated cards. Cover numbers and working figuring out what number is missing. <br> Literature Connection: <br> Ten Black Dots <br> By Donald Crews (Houghton Mifflin Reading Book) James and the Rain By Karl Kuskin | Six <br> Seven <br> Eight <br> Nine <br> Ten <br> Eleven <br> Twelve <br> Pattern <br> Sort <br> More <br> Fewer <br> Estimate <br> Equal groups <br> Before <br> After <br> Between | Chapter 7 Test Observation <br> Students identify and write numbers 6-12 (kindergarten assessment) <br> Chapter 8 Test Observation |


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| GLCE's <br> Number and Operations: Count, write, and order numbers <br> N.ME.00.01 Count objects in sets up to 30 N.ME.00.03 Compare and order numbers to 30 using phrases as "more than" or "less than" N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent Measurement: Explore concepts of time M.UN.00.01 Know and use the common words for the parts of the day (morning, afternoon, evening, night) and relative time (yesterday, today, tomorrow, last week, next year). M.TE.00.02 Identify tools that measure time (clocks measure hours and minutes; calendars measure days, weeks, and months). <br> M.UN.00.03 Identify daily landmark times to the nearest hour (lunchtime is 12 o'clock; bedtime is $8 o^{\prime}$ clock). <br> Common Core | Chapter nine: <br> Time <br> 9.1 Times of Day <br> 9.2 Days and Months on the Calendar <br> 9.3 Comparing Temperature <br> 9.4 Problem Solving: Use a Picture <br> 9.5 More time, Less time <br> 9.6 Order Events <br> 9.7 Time to the Hour <br> 9.8 More Time to the Hour <br> 9.9 Compare Analog and Digital <br> Clocks | Chapter 9 Student pages Chapter 9 Practice pages Student clocks <br> Literature Connections: <br> Bunny Day <br> By Rick Walton | Morning <br> Afternoon <br> Evening <br> Calendar <br> Yesterday <br> Today <br> Tomorrow <br> Hotter <br> Colder <br> Warmer <br> Cooler <br> First <br> Last <br> Second <br> Third next analog clock digital clock <br> Minute hand <br> Hour hand | Chapter 9 Test Observation <br> Days of the week Song Months of the year Song <br> Calendar Time |


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| CLCE's | Chapter Ten: <br> Money 10.1 Sort and Graph Coins <br> 10.2 Penny <br> 10.3 Nickel <br> 10.4 Dime <br> 10.5 Quarter <br> 10.6 Problem Solving: Act it Out | Chapter 10 student pages Chapter 10 practice pages Touch money <br> Coins | Coin <br> Dime <br> Penny <br> Nickel <br> Quarter <br> Money <br> Sort <br> Graph | Chapter 10 Test <br> Observation |


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| GLCE's <br> Measurement: Explore other measurement attributes <br> M.UN.00.04 Compare two or more objects by length, weight, and capacity M.PS.00.05 Compare length and weight of objects by comparing to reference objects, and use terms such as shorter, longer, taller, lighter, heavier. <br> Common Core <br> K.MD. 1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. <br> K.MD. 2 Directly compare two objects with a measurable attribute in common, to see which object has "more of/less of" the attribute, and describe the difference. | Chapter Eleven: <br> Length <br> 11.1 Compare Length <br> 11.2 Order Length <br> 11.3 Measure Length <br> 11.4 Estimate and Measure Length <br> 11.5 Explore Area <br> 11.6 Problem Solving: Act it Out <br> Chapter Twelve: <br> Weight and Capacity <br> 12.1 Compare Weight <br> 12.2 Order by Weight <br> 12.3 Measure by Weight <br> 12.4 Estimate and Measure Wight <br> 12.5 Compare Capacity <br> 12.6 Order by Capacity <br> 12.7 Measure Capacity <br> 12.8 Estimate and Measure Capacity <br> 12.9 Tools for Measuring <br> 12.10 Problem Solving: Use Logical Reasoning | Chapter 11 student pages <br> Chapter 11 practice pages <br> Scale/Balance <br> Attribute blocks <br> Classroom objects <br> Chapter 12 student pages <br> Chapter 12 practice pages <br> Attribute blocks <br> Scale/Balance <br> Classroom objects <br> Bag of beans <br> Plastic cup <br> Rulers <br> Thermometer <br> Measuring cup <br> Clock | Long <br> short <br> Longer <br> shorter <br> Tall <br> taller <br> Longest <br> Shortest <br> Tallest <br> Measure <br> Estimate <br> Area <br> Heavy <br> Light <br> Heavier <br> Lighter <br> Lightest <br> Heaviest <br> Balance <br> Empty <br> Full <br> Holds more <br> Holds less <br> Calendar <br> Ruler <br> Thermometer <br> Clock | Chapter 11 test <br> Observation <br> Chapter 12 test <br> Observation |


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| GLCE's <br> Number and Operations: Compose and decompose numbers <br> N.ME.00.06 Understand the numbers 1 to 30 as having one, or two or three groups of ten and some ones. Also count by tens with objects in ten-groups to 100 . <br> N.MR.00.07 Compose and decompose numbers from 2 to 10 , with attention to the additive structure of number systems N.MR.00.08 Describe and make drawings to represent situations/stories involving putting together and taking apart for totals up to 10 ; use finger and object counting. <br> Common Core <br> K.OA. 1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps) acting out situations, verbal explanations, expression, or equations. <br> K.OA. 2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. <br> K.OA. 3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5=2+3$ and $5=4+1$ ). <br> 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. <br> K.OA. 5 Fluently add and subtract within 5 . | Chapter Thirteen: <br> Addition <br> 13.1 Model Addition <br> 13.2 Add 1 to Numbers 0-9 <br> 13.3 Add 2 to Numbers 0-5 <br> 13.4 Add 2 to Numbers 6-8 <br> 13.5 Add Pennies <br> 13.6 Practice Addition <br> 13.7 Doubles <br> 13.8 Problem Solving: Draw a Picture <br> Chapter Fourteen: <br> Subtraction <br> 14.1 Model Subtraction <br> 14.2 Subtract 1 from 1-10 <br> 14.3 Subtract 2 from 2-5 <br> 14.4 Subtract 2 from 2-10 <br> 14.5 Subtract Pennies <br> 14.6 Practice Subtraction <br> 14.7 Relate Addition and Subtraction <br> 14.8 Problem Solving: Choose the Operation | Chapter 13 student pages Chapter 13 practice pages <br> Cubes, beads, counters Work mat 7 \& 8 <br> Chapter 14 student pages Chapter 14 practice pages <br> Cubes, beads, counters Work mat 1,7 , and 8 | Add <br> Join <br> Put together <br> Plus sign <br> Equals sign <br> Addition <br> sentence <br> sum <br> doubles <br> Subtract <br> Minus sign <br> Subtraction sentences <br> difference | Chapter 13 Test <br> Observation <br> Chapter 14 Test <br> Observation |


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