Florida 3rd Grade Assessment Item Specification Report		
Benchmark number	Benchmark	Content Limits
MA.3.A.1.1#:	Model multiplication and division including problems presented in context: repeated addition, multiplicative comparison, array, how many combinations, measurement, and partitioning.	Items may include whole-number multiplication facts from 0×0 through 9×9 and the related division facts. Items may include division problems with remainders expressed only as whole numbers. Items will not require interpretation of the remainder.
MA.3.A.1.2#:	Solve multiplication and division fact problems by using strategies that result from applying number properties.	Items will not include identifying the properties by name. Items will not require the use of more than two properties to convert one expression or equation to its equivalent. Items may include only factors or divisors of 0 through 9.
MA.3.A.1.3#:	Identify, describe, and apply division and multiplication as inverse operations.	Items may include whole-number multiplication facts from 0×0 through 9×9 and the related division facts. Items will not include identifying the inverse property by name.
MA.3.A.2.1#:	Represent fractions, including fractions greater than one, using area, set, and linear models.	Area models may include shapes such as circles and rectangles. Set models may include groups of objects such as counters or other objects familiar to Grade 3 students. Linear models may include number lines and fraction strips. Items may include fractions and mixed numbers up to and including the whole number 5. Items may include fractions with denominators from 1 through 10, 12, or 16.
MA.3.A.2.2#:	Describe how the size of the fractional part is related to the number of equal sized pieces in the whole.	Assessed with MA.3.A.2.3

MA.3.A.2.3#:	Compare and order fractions, including fractions greater than one, using models and strategies.	Denominators of fractions must be 1 through 10, 12, or 16. Items may include fractions and mixed numbers up to and including the whole number 5. Items may include only the inequality symbols $<$ and $>$.
MA.3.A.2.4#:	Use models to represent equivalent fractions, including fractions greater than 1, and identify representations of equivalence.	Denominators of fractions must be 1 through 10, 12, or 16. Items may include fractions and mixed numbers up to and including the whole number 5.
MA.3.A.4.1#:	Create, analyze, and represent patterns and relationships using words, variables, tables, and graphs.	Items may use numeric patterns, graphic patterns, function tables, or graphs (bar graphs, pictographs, or line plots only). Numeric patterns should be shown with three or more elements. Graphic patterns should be shown with three or more examples of the pattern repeated. Students should not be asked to extend the pattern more than three steps beyond what is given or to provide more than three missing elements. Items will not include extending the pattern on a bar graph or pictograph. Rules for numeric patterns and relationships shown in function tables must include only one operation limited to addition, subtraction, or multiplication. Patterns or relationships involving multiplication are limited to the multiplication facts of 0×0 through 9×9. Function rules or relationships may be described using words, tables, graphs, or expressions using variables or geometric shapes (e.g., n, $\square$, $\triangle$); however, the intent of the benchmark is not to assess solving equations.

MA.3.A.6.1#:	Represent, compute, estimate, and solve problems using numbers through hundred thousands.	Numbers may be represented flexibly; for example: 947 can be thought of as 9 hundreds, 4 tens, and 7 ones; 94 tens and 7 ones; or 8 hundreds, 14 tens, and 7 ones. Items may include the inequality symbols (>, <, =, ≠). Items will not require the estimation strategy to be named. Front-end estimation will not be an acceptable estimation strategy. Decimals may be used in the context of money that estimate to a whole dollar.
MA.3.A.6.2#:	Solve non-routine problems by making a table, chart ,or list and searching for patterns.	Items should require students to solve nonroutine problems and not align with the clarifications of MA.3.A.4.1 (extending a graphic pattern or identifying a simple relationship [rule] for a pattern).
MA.3.G.3.1#:	Describe, analyze, compare, and classify two-dimensional shapes using sides and angles - including acute, obtuse, and right angles - and connect these ideas to the definition of shapes.	Items may include regular and irregular polygons with 3, 4, 5, 6, 8, or 10 sides. Polygons used in items may be concave or convex. Polygons used in items may include types of triangles (right, equilateral, isosceles, and scalene), types of quadrilaterals (parallelogram, trapezoid, rectangle, rhombus, square, and/or kite), pentagons, hexagons, octagons, and decagons. Polygons may be classified by use of parallel or perpendicular sides as well as number of sides and/or types of angles. Items may assess the specific names of polygons with 3, 4, 5, 6, 8, or 10 sides and the following terms: *regular* and *irregular polygons*, *lines* and *line segments* (*parallel* and *perpendicular*), *diagonals*, and *vertices* (vertex). Items will not include defining or identifying the following vocabulary terms: *concave* and *convex*. Types of angles will not be assessed in isolation at this benchmark.

MA.3.G.3.2#:	Compose, decompose, and transform polygons to make other polygons, including concave and convex polygons with three, four, five, six, eight, or ten sides.	Items may include concave or convex polygons with 3, 4, 5, 6, 8, or 10 sides. Items may include the use of transformations to create new polygons, but the transformation (i.e., rotations, translations, reflections, dilations) will not be assessed. Geometric terms will be used with common terminology set in parentheses, i.e., *reflection* (*flip*). Items may use the following terms: *overlapping*, *combine*, and *polygon*. Items will not assess the following vocabulary terms: *concave*, *convex*, *compose*, or *decompose*.
MA.3.G.3.3#:	Build, draw, and analyze two-dimensional shapes from several orientations in order to examine and apply congruence and symmetry.	Items may include concave and convex polygons with 3, 4, 5, 6, 8, or 10 sides. Items should use the correct geometric term with common terminology set in parentheses, i.e., *reflection* (*flip*). Items may assess the following terms: *symmetry*, *reflection*, and/or *congruent*. Transformations may be used in graphics; however, the transformations needed to compose or decompose polygons (*rotations*, *translations*, *dilations*) will not be assessed.
MA.3.G.5.1#:	Select appropriate units, strategies, and tools to solve problems involving perimeter.	Items may require the student to use properties of polygons to deduce the lengths of a side or sides of a polygon given the perimeter and/or the lengths of the remaining sides of the polygon. Polygons used in items must be convex with 3, 4, 5, 6, 8, or 10 sides or composed of composite rectangles. Items may require students to measure the sides of a polygon using a ruler. The lengths of the sides of polygons must be whole numbers. Items will not include conversions between units of measure.

MA.3.G.5.2#:	Measure objects using fractional parts of linear units such as 1/2, 1/4, and 1/10.	Items that require students to measure objects using the provided ruler will be less than 6 inches or 15 centimeters. If an object is greater than 6 inches or 15 centimeters, then part of the object may be represented pictorially with a partial ruler to be read and interpreted by the student. Items will not include conversions between units.
MA.3.G.5.3#:	Tell time to the nearest minute and to the nearest quarter hour, and determine the amount of time elapsed.	Items may include determining elapsed time of days, weeks, months, or years. For elapsed time greater than 1 hour and less than or equal to 24 hours, only increments of hours and half hours will be assessed. For elapsed time less than 1 hour, only increments of half hours, quarter hours, and 5 minutes will be assessed.
MA.3.S.7.1#:	Construct and analyze frequency tables, bar graphs, pictographs, and line plots from data, including data collected through observations, surveys, and experiments.	Items may require the student to choose the most appropriate data display given a set of data from observations, surveys, and/or experiments. Items may assess identifying parts of a correct graph and recognizing the appropriate scale. The increments used on the scale are limited to units of 1, 2, 5, 10, 20, 25, 50, or 100. Pictographs can use keys containing a scale of 1, 2, 5, or 10. The data presented in graphs should represent no more than five categories. The total sample size for bar graphs should be no more than 1,000. The total sample size should be no more than 200 for frequency tables, pictographs, and line plots. Addition, subtraction, or multiplication of whole numbers may be used within the item.