BENCHMARK SEQUENCE REPORT
MATHEMATICS GRADE 3 BY QUARTER

ARCHDIOCESE OF CHICAGO

This planning tool can be used to sequence the teaching and assessing of the OCS Benchmarks. Benchmarks should be assessed formatively in multiple ways and over multiple times to guide reteaching/relearning. Benchmarks that are assessed summatively should be sequenced throughout the school year to determine student mastery.

Quarter 1		Quarter 2		Quarter 3		Quarter 4		OCS Benchmarks	
Taught	Assessed	Taught	Assessed	Taught	Assessed	Taught	Assessed	OCS Codes	Benchmarks
DOMAIN: Standards for Mathematical Content									
Strand: *Operations and Algebraic Thinking (OA)*									
3.SMC.OA.1 Represent and solve problems involving multiplication and division.									
								3.SMC.OA.1.1.a	Interpret products of whole numbers
								3.SMC.OA.1.2.a	Interpret whole-number quotients of whole numbers
								3.SMC.OA.1.3-1.b	Use multiplication and division with numbers up to 100 to solve word problems in situations involving equal groups
								3.SMC.OA.1.3-2.b	Use multiplication and division with numbers up to 100 to solve word problems in situations involving arrays
								3.SMC.OA.1.3-3.b	Use multiplication and division with numbers up to 100 to solve word problems in situations involving measurement quantities
								3.SMC.OA.1.4.b	Determine the unknown whole number in a multiplication or division equation relating three whole numbers
3.SMC.OA.2 Understand properties of multiplication and the relationship between multiplication and division.									
								3.SMC.OA.2.1.c	Multiply and divide using properties of operations
								3.SMC.OA.2.2.b	Show that division is the multiplication of the dividend and divisor of a number
3.SMC.OA.3 Multiply and divide within 100.									
								3.SMC.OA.3.1.b	Multiply and divide numbers up to 100 fluently
3.SMC.OA.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.									
								3.SMC.OA.4.1-1.c	Solve two-step word problems using the four operations
								3.SMC.OA.4.1-2.c	Represent two-step word problems using equations with a letter standing for the unknown quantity
								3.SMC.OA.4.1-3.c	Assess the reasonableness of an answer after solving a two-step word problems using the four operations
								3.SMC.OA.4.2-1.c	Identify arithmetic patterns found in an addition or multiplication table
								3.SMC.OA.4.2-2.c	Explain arithmetic patterns found in an addition or multiplication table by using properties of operations
Strand: *Number and Operations in Base Ten (NBT)*									
3.SMC.NBT.1 Use place value understanding and properties of operations to perform multi-digit arithmetic.									
								3.SMC.NBT.1.1.a	Use place value understanding to round whole numbers to the nearest 10 or 100
								3.SMC.NBT.1.2.a	Use strategies and algorithms to fluently add and subtract numbers up to 1000
								3.SMC.NBT.1.3.b	Use strategies based on place value and properties of operations to multiply one-digit whole numbers by multiples of 10 in the range 10-90
Strand: *Number and Operations - Fractions (NF)*									
3.SMC.NF.1 Develop understanding of fractions as numbers.									
								3.SMC.NF.1.1-1.a	Show that a fraction 1/b is equal to the quantity formed by 1 part when a whole is partitioned into b equal parts
								3.SMC.NF.1.1-2.a	Show that a fraction a/b is equal to the quantity formed by a parts of size 1/b
								3.SMC.NF.1.2-1.b	Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts
								3.SMC.NF.1.2-2.b	Demonstrate that each part on a number line diagram has size 1/b and that the endpoint of the part based at 0 locates the number 1/b
								3.SMC.NF.1.2-3.b	Represent a fraction a/b on a number line diagram by marking off "a" lengths 1/b from 0

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								3.SMC.NF.1.2-4.b	Explain that an interval on a number line diagram has size a/b and that its endpoint locates the number a/b on the number line
								3.SMC.NF.1.3-1.b	Identify two fractions as equivalent if they are the same size or the same point on a number line
								3.SMC.NF.1.3-2.c	Generate simple equivalent fractions
								3.SMC.NF.1.3-3.c	Use a fraction model to explain why fractions are equivalent
								3.SMC.NF.1.3-4.b	Relate fractions to whole numbers
								3.SMC.NF.1.3-5.c	Express whole numbers as fractions
								3.SMC.NF.1.3-6.c	Compare the size of two fractions with the same numerator or denominator
								3.SMC.NF.1.3-7.c	Explain why comparisons are valid only when two fractions with the same numerator or denominator refer to the same whole
								3.SMC.NF.1.3-8.c	Record the results of comparisons of two fractions with the same numerator or denominator with the symbols >, =, and <
								3.SMC.NF.1.3-9.c	Use a fraction model to justify conclusions based on comparisons of fractions with the same numerator or denominator
Strand: *Measurement and Data (MD)*									
3.SMC.MD.1 Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.									
								3.SMC.MD.1.1-1.a	Tell time to the nearest minute
								3.SMC.MD.1.1-2.a	Write time to the nearest minute
								3.SMC.MD.1.1-3.a	Measure time intervals in minutes
								3.SMC.MD.1.1-4.b	Solve word problems involving addition and subtraction of time intervals in minutes
								3.SMC.MD.1.2-1.b	Measure liquid volumes and masses of objects using standard units
								3.SMC.MD.1.2-2.b	Estimate liquid volumes and masses of objects using standard units
								3.SMC.MD.1.2-3.c	Solve one-step word problems involving masses or volumes that are given in the same units
3.SMC.MD.2 Represent and interpret data.									
								3.SMC.MD.2.1-1.c	Draw a scaled picture graph to represent a data set with several categories
								3.SMC.MD.2.1-2.c	Draw a scaled bar graph to represent a data set with several categories
								3.SMC.MD.2.1-3.c	Solve one and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs
								3.SMC.MD.2.2-1.a	Measure lengths using rulers marked with halves and fourths of an inch
								3.SMC.MD.2.2-2.c	Make a line plot using lengths, measured by a ruler, where the horizontal scale is marked off in appropriate units
3.SMC.MD.3 Geometric measurement: understand concepts of area and relate area to multiplication and to addition.									
								3.SMC.MD.3.1-1.a	Relate area to attributes of plane figures
								3.SMC.MD.3.1-2.a	Identify concepts of area measurement
								3.SMC.MD.3.2.a	Measure areas by counting unit squares
								3.SMC.MD.3.3-1.a	Find the area of a rectangle with whole-number side lengths
								3.SMC.MD.3.3-2.b	Compare methods of finding the area of a rectangle
								3.SMC.MD.3.3-3.b	Solve real world and mathematical problems by multiplying side lengths to find areas of rectangles with whole number side lengths

								3.SMC.MD.3.3-4.c	Show that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c
								3.SMC.MD.3.3-5.c	Use models to represent the distributive property in finding the area of a rectangle with whole-number side lengths
								3.SMC.MD.3.3-6.c	Decompose the area of rectilinear figures into non-overlapping rectangles
								3.SMC.MD.3.3-7.c	Show that the area of rectangles is additive
								3.SMC.MD.3.3-8.c	Add the areas of non-overlapping rectangular parts
								3.SMC.MD.3.3-9.c	Solve real world problems by adding the areas of non-overlapping rectangular parts
3.SMC.MD.4 Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.									
								3.SMC.MD.4.1-1.c	Solve real world and mathematical problems calculating perimeters of polygons
								3.SMC.MD.4.1-2.c	Solve real world and mathematical problems by exhibiting rectangles with the same perimeter and different areas
								3.SMC.MD.4.1-3.c	Solve real world and mathematical problems by exhibiting rectangles with the same area and different perimeters
Strand: *Geometry (G)*									
3.SMC.G.1 Reason with shapes and their attributes.									
								3.SMC.G.1.1-1.b	Recognize that shapes in different categories may share attributes, and that the shared attributes can define a larger category
								3.SMC.G.1.1-2.b	Identify examples of quadrilaterals including rhombuses, rectangles, and squares
								3.SMC.G.1.1-3.b	Draw examples of quadrilaterals that are not rhombuses, rectangles, and squares
								3.SMC.G.1.2-1.c	Partition shapes into parts with equal areas
								3.SMC.G.1.2-2.c	Express the area of equally partitioned parts as a unit fraction of the whole
DOMAIN: Standards for Mathematical Practices									
Strand: *Solve Problems (MP1)*									
3.SMP.1 1. Make sense of problems and persevere in solving them.									
								3.SMP.1.c	Make sense of problems and persevere in solving them
Strand: *Reason (MP2)*									
3.SMP.2 2. Reason abstractly and quantitatively.									
								3.SMP.2.c	Reason abstractly and quantitatively
Strand: *Construct Arguments (MP3)*									
3.SMP.3 3. Construct viable arguments and critique the reasoning of others.									
								3.SMP.3.c	Construct viable arguments and critique the reasoning of others
Strand: *Model (MP4)*									
3.SMP.4 4. Model with mathematics.									
								3.SMP.4.c	Model with mathematics
Strand: *Use Tools (MP5)*									
3.SMP.5 5. Use appropriate tools strategically.									
								3.SMP.5.c	Use appropriate tools strategically
Strand: *Attend to Precision (MP6)*									
3.SMP.6 6. Attend to precision.									
								3.SMP.6.c	Attend to precision
Strand: *Use Structure (MP7)*									
3.SMP.7 7. Look for and make use of structure.									
								3.SMP.7.c	Look for and make use of structure
Strand: *Express Regularity (MP8)*									
3.SMP.8 8. Look for and express regularity in repeated reasoning.									
								3.SMP.8.c	Look for and express regularity in repeated reasoning