Maryland
STATE DEPARTMENT OF EDUCATION

DRAFT Grade 3

Maryland College and Career Ready Standards for Mathematics

Standards Crosswalk Document

Mathematics Branch

May 2025

Number and Operation Sense (NOS)

Previously Number and Operations in Base Ten (NBT), Operations and Algebraic Thinking (OA), and Number and Operation – Fractions (NF)

3.NOS.A UNDERSTAND PLACE VALUE.

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.A.1	Apply and extend place value understanding to whole numbers within 10,000. a. Read and write whole numbers using base-ten numerals, number names, and expanded form. b. Compose and decompose whole numbers. c. Estimate quantities by reasoning about their location on a number line, their relationship to benchmark numbers, and rounding to nearest 10 or 100. d. Compare two whole numbers by reasoning about the values of the digits and their location of the numbers on a number line. Record the results of comparisons with the symbols >, =, and <.	**Not applicable**	Standard added to support numeracy development (number and operation sense).

3.NOS.B REPRESENT AND INTERPRET PROBLEMS INVOLVING MULTIPLICATION AND DIVISION.

PREVIOUSLY 3.OA.A REPRESENT AND SOLVE PROBLEMS INVOLVING MULTIPLICATION AND DIVISION.

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.B.2	Represent and interpret multiplication of two factors (0-10) as equal groups or as a composed unit that can be repeated/iterated. Explain the relationship between the factors and products.	**3.OA.A.1**	Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7.
3.NOS.B.3	Represent and interpret whole-number quotients (0-10) as dividing an amount into known number of groups (partitive) or as dividing an amount into groups of known size (quotative). Explain the relationship between the quotient, divisor, and dividend.	**3.OA.A.2**	Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
Not applicable	Moved to 3.AT.A..	**3.OA.A.3**	Use multiplication and division within 100 to solve word problems in situations involving equal groups, or arrays, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
Not applicable	Embedded in 3.NOS.C.5.	**3.OA.A.4**	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \blacksquare \div 3$, $6 \times 6 = ?$

3.NOS.C UNDERSTAND PROPERTIES OF MULTIPLICATION AND THE RELATIONSHIP BETWEEN MULTIPLICATION DIVISION.

PREVIOUSLY 3.OA.B

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.C.4	Identify and apply the Commutative Property of Multiplication, Associative Property of Multiplication, and Distributive Property of Multiplication as strategies to multiply.	**3.OA.B.5**	Apply properties of operations as strategies to multiply and divide. Examples: If 6×4=24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5×2=10, then 3×10 = 30. (Associative property of multiplication) Knowing that 8 ×5 = 40 and 8×2 = 16, one can find 8 × 7 as 8×(5+2)=(8×5)+ (8×2) which leads to 40+16 = 56. (Distributive property)
3.NOS.C.5	Explain and use the inverse relationship between multiplication and division to determine the unknown whole number in a multiplication or division equation involving three whole numbers (e.g., find 32 ÷ 8 by thinking of unknown-factor problem and finding the number that equals 32 when multiplied by 8).	**3.OA.B.6**	Understand division as unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.

3.NOS.D USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO PERFORM MULTI-DIGIT ARITHMETIC.

PREVIOUSLY 3.NBT.B

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
Not applicable	Content embedded in 3.NOS.A.1.	**3.NBT.A.1**	Use place value understanding to round whole numbers to the nearest 10 or 100.

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.D.6	Estimate sums and differences within 1,000 using benchmark numbers and front-end estimation. Determine when an estimate is appropriate and when an exact answer is needed.	**Not applicable**	Standard added to support development of number sense and estimation strategies.
3.NOS.D.7	Fluently add and subtract within 1000. a. Use computational strategies efficiently (e.g., decomposition, partials sums, compensation, make ten/hundred/thousand) to add and subtract. b. Use properties of operations, and/or the inverse relationship between addition and subtraction. c. Determine and explain when a strategy is most efficient.	**3.NBT.A.2**	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3.NOS.D.8	Multiply one-digit whole numbers by multiples of 10 in the range of 10-90 (e.g., 9 × 80;60 × 5) using strategies based on place value and properties of operations.	**3.NBT.A.3**	Multiply one-digit whole numbers by multiples of 10 in the range of 10-90 (e.g., 9 × 80,5 × 60) using strategies based on place value and properties of operations.

3.NOS.E MULTIPLY AND DIVIDE WITHIN 100.

PREVIOUSLY 3.OA.C

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.E.9	Recall or quickly derive multiplication and division facts within 100 (e.g., factors less than or equal to 10 and quotients less than are equal to 10). a. Skip count (2s, 5s, 10s) and apply properties of operations (0s, 1s) to derive foundational facts. b. Derive unknown facts from known facts using double facts (e.g., to solve 4 × 3, double 3 to get 6 and double 6 to get 12) to multiply and divide. c. Use properties of operations (e.g., to solve 8 × 7, think of (5 × 7) + (3 × 7)) to multiply. d. Use the inverse relationship between multiplication and division (e.g., think of $4 \times ? = 28$ to solve $28 \div 4 = ?$) to multiply and divide.	**3.OA.C.7**	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

3.NOS.F DEVELOP UNDERSTANDING OF FRACTIONS AS NUMBERS.

PREVIOUSLY 3.NF.A

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.F.10	Recognize and explain that a fraction represents a part of a whole. a. Partition shapes into parts with equal areas and express the area of each part using a unit fraction. b. Explain that a fraction $\frac{1}{d}$ represents one part of a whole that is divided into d equal parts, and that a fraction $\frac{c}{d}$ represents c parts of size $\frac{1}{d}$.	**3.NF.A.1**	Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitions in b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
3.NOS.F.11	Explain a fraction of a set $\frac{c}{d}$ as the quantity formed by *c* items as part of the given set of *d* objects.	**Not applicable**	Standard added to develop concept of fraction of a set.
3.NOS.F.12	Represent a fraction as a number on the number line. a. Represent a fraction $\frac{1}{d}$ on a number line by defining the interval from 0 to 1 as the whole and partitioning it into *d* equal lengths. Recognize that each length measures $\frac{1}{d}$ and that the endpoints of the length starting at 0 locates the number $\frac{1}{d}$ on the number line. b. Represent a fraction $\frac{c}{d}$ on a number line by marking off *c* lengths of $\frac{1}{d}$ from 0. Recognize that the resulting interval has size $\frac{c}{d}$ and that the endpoint of the length locates the number $\frac{c}{d}$ on the number line.	**3.NF.A.2**	Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction $\frac{1}{b}$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $\frac{1}{b}$ and that the endpoint of the part based at 0 locates the number 1/b on the number line. b. Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths of $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ locates the number $\frac{a}{b}$ on the number line.

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.NOS.F.13	Explain equivalence of fractions and compare fractions by reasoning about their size, recognizing that comparisons are valid only when the two fractions refer to the same whole. a. Represent two fractions as equivalent if they are the same size, or they represent the same point on the number line. b. Identify and generate equivalent fractions, (e.g., $\frac{1}{2}=\frac{2}{4}, \frac{4}{6}=\frac{2}{3}$.) and explain why the fractions are equivalent using concrete materials, drawings, number lines, or equations. c. Express whole numbers as fractions, and identify fractions that are equivalent to whole numbers, (e.g., express 3 in the form $3=\frac{3}{1}$; recognize that $6=\frac{6}{1}$; locate $\frac{4}{4}$ and 1 at the same point of a number line). d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions (e.g., by using concrete materials, drawings, number lines, and/or equations).	**3.NF.A.3**	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Represent two fractions as equivalent (equal) if they are the same size, or the same point on the number line. b. Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2}=\frac{2}{4}, \frac{4}{6}=\frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3=\frac{3}{1}$; recognize that $6=\frac{6}{1}$; locate $\frac{4}{4}$ and 1 at the same point of a number line diagram. d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Algebraic Thinking (AT)

Previously Operations and Algebraic Thinking (OA)

3.AT.A SOLVE PROBLEMS INVOLVING THE FOUR OPERATIONS AND IDENTIFY AND EXPLAIN PATTERNS IN ARITHMETIC.

PREVIOUSLY 3.OA.D

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.AT.A.1	Use multiplication and division within 100 to solve one-step problems in context involving equal groups, arrays, and area by using concrete materials, drawings, and/or equations.	**Not applicable**	Moved from 3.OA.A.
3.AT.A.2	Use the four operations to solve two-step problems in context (within number limits for each operation as stated in 3.OA.B.5 and 3.NBT.B.3). a. Represent these problems using equations with a letter standing for the unknown quantity. b. Assess the reasonableness of answers in terms of context, using mental computation and estimation strategies including, rounding, front-end estimation, and benchmark numbers.	**3.OA.D.8**	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
3.AT.A.3	Identify arithmetic patterns and explain them using properties of operations (e.g., observe the pattern that 4 times a number is always even and explain why 4 times a number can be decomposed into two equal addends).	**3.OA.D.9**	Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. For example, observe that 4 times a number is always even and explain why 4 times a number can be decomposed into two equal addends.

Geometric Reasoning (GR)

Previously Measurement and Data (MD) and Geometry (G)

3.GR.A SOLVE PROBLEMS INVOLVING MEASUREMENT AND ESTIMATION OF INTERVALS OF TIME, LIQUID, AND MASSES OF OBJECTS.

PREVIOUSLY 3.MD.A

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.GR.A.1	Measure the length of an object to the nearest half and quarter unit by using appropriate tools (e.g., rulers, yardsticks, meter sticks, and measuring tapes).	**Not applicable**	Content separated from previous 3.MD.B.4 as separate standard.
3.GR.A.2	Solve problems in context that involve addition and subtraction of time intervals in minutes (e.g., represent and solve using a number line).	**3.MD.A.1**	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
3.GR.A.3	Measure and estimate liquid volumes and masses of objects using standard units of liters(l), grams (g), and kilograms (kg).	**3.MD.A.2**	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
3.GR.A.4	Add, subtract, multiply, or divide to solve one-step problems in measurement contexts involving masses or volumes that are given in the same units.	**Not applicable**	Content removed from previous 3.MD.A.2 as separate standard.

3.GR.B REASON WITH SHAPES AND THEIR ATTRIBUTES.

PREVIOUSLY 3.G.A

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.GR.B.5	Explain that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category of shapes (e.g., quadrilaterals).	**3.G.A.1**	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
Not applicable	Content embedded in 3.NF.A.1.	**3.G.A.2**	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.

3.GR.C UNDERSTAND CONCEPTS OF AREA AND PERIMETER.

PREVIOUSLY 3.MD.C GEOMETRIC MEASUREMENT: UNDERSTAND CONCEPTS OF AREA AND RELATE AREA TO MULTIPLICATION AND TO ADDITION.; 3.MD.D RECOGNIZE PERIMETER AS AN ATTRIBUTE OF PLANE FIGURES AND DISTINGUISH BETWEEN LINEAR AND AREA MEASUREMENTS.

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
Not applicable	Content embedded in 3.GR.C.5.	**3.MD.C.5**	Recognize area as an attribute of plane figures and understand concept of area measurement. a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
3.GR.C.6	Identify area as an attribute of a two-dimensional figure and measure area of rectangular space by counting square units (non-standard equal-sized units, square centimeters, square meters, square inches, square feet).	**3.MD.C.6**	Measure areas by counting unit squares (square cm, square m, square in., square ft., and improvised units).

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.GR.C.7	Relate area to multiplication and addition. a. Determine the area of a rectangle with whole-number side lengths by tiling and connecting the visual representation to multiplication of the side lengths to solve problems in context. b. Use tiling and area models to show that the area of a rectangle with whole number side lengths *b* and *c + d* is the sum of *b* × *c* and *b* × *d*, representing the Distributive Property of Multiplication. c. Determine the area of composite rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas.	**3.MD.C.7**	Relate area to the operations of multiplication and addition. a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the nonoverlapping parts, applying this technique to solve real-world problems.
3.GR.C.8	Identify perimeter as an attribute of two-dimensional figures and measure the distance around the outside of a figure by counting units or adding lengths.	**Not applicable**	Standard added to support conceptual development of perimeter.
3.GR.C.9	Solve problems in contexts involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and finding rectangles with the same perimeter and different areas or with the same area and different perimeters.	**3.MD.D.8**	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Reasoning with Data and Statistics (DS)

Previously Measurement and Data (MD

3.DS.A REPRESENT AND INTERPRET DATA.

PREVIOUSLY 3.MD.B

2025 MD Index	2025 Standards Statement	2010 Index	2010 Previous Standards Statement
3.DS.A.1	Ask and answer questions by collecting, organizing and summarizing data, recognizing the importance of context when analyzing data. a. Create a scaled data visualization (e.g., picture graph, bar graph for categorial data; line plot with fraction units of halves and fourths for numerical data) to display collected or given data. b. Summarize data presented in scaled data visualizations (e.g., picture graph, bar graph for categorial data; line plot for numerical data) by describing the story the data is telling. c. Identify patterns in the data and evaluate whether these patterns might apply to different context contexts or situations.	**3.MD.B.3**	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how may less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
Not applicable	Content embedded in 3.GR.A.1 and 3.DS.A.1.	**3.MD.B.4**	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.