

MCAS/DCCAS Mathematics Correlation Chart Grade 4

<i>MCAS Finish Line Mathematics Grade 4</i>	<i>MCAS Standard</i>	<i>DCCAS Standard</i>	<i>DCCAS Standard Description</i>
Unit 1: Number Sense			
Lesson 1: <i>Whole Number Place Value</i>	4.N.1	4.NSO-N.1	Exhibit an understanding of the base 10 number system by reading, modeling, and writing whole numbers to at least 100,000; demonstrating an understanding of the values of the digits; and comparing and ordering the numbers.
	4.N.2	4.NSO-N.2	Represent, compare, and order numbers to 100,000 using various forms, including expanded notation.
Lesson 2: <i>Comparing and Ordering Numbers</i>	4.N.1	4.NSO-N.1	Exhibit an understanding of the base 10 number system by reading, modeling, and writing whole numbers to at least 100,000; demonstrating an understanding of the values of the digits; and comparing and ordering the numbers.
	4.N.2	4.NSO-N.2	Represent, compare, and order numbers to 100,000 using various forms, including expanded notation.
Lesson 3: <i>Rounding Whole Numbers</i>	4.N.16	4.NSO-N.3	Round whole numbers to 100,000 to the nearest 10, 100, 1,000, 10,000, and 100,000.
Lesson 4: <i>Decimal Place Value</i>	4.N.5	4.NSO-F.11	Recognize, name, and generate equivalent forms of common decimals (0.5, 0.25, 0.2, 0.1) and fractions (halves, quarters, fifths, and tenths) and explain why they are equivalent.
	4.N.6	4.NSO-N.5	Read and interpret whole numbers and decimals up to two decimal places; relate to money and place-value decomposition.

Lesson 5: <i>Fractions and Mixed Numbers</i>	4.N.3	4.NSO-F.9	Demonstrate an understanding of fractions as parts of unit wholes, as parts of a collection, and as locations on a number line.
	4.N.4	4.NSO-F.12	Select, use, and explain models to relate common fractions and mixed numbers (e.g., $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{12}$, and $1\frac{1}{2}$); find equivalent fractions, mixed numbers, and decimals.
Lesson 6: <i>Equivalent Forms</i>	4.N.4	4.NSO-F.12	Select, use, and explain models to relate common fractions and mixed numbers (e.g., $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{12}$, and $1\frac{1}{2}$); find equivalent fractions, mixed numbers, and decimals.
	4.N.5	4.NSO-F.11	Recognize, name, and generate equivalent forms of common decimals (0.5, 0.25, 0.2, 0.1) and fractions (halves, quarters, fifths, and tenths) and explain why they are equivalent.
Lesson 7: <i>Factors and Multiples</i>	4.N.7	4.NSO-N.4	Recognize sets to which a number may belong (odds, evens, multiples and factors of given numbers, and squares), and use these in the solution of problems.
Unit 2: Operations			
Lesson 1: <i>Operations Properties</i>	4.N.9	4.NSO-C.26	Select, use, and explain the commutative, associative, and identity properties of operations on whole numbers in problem situations.
Lesson 2: <i>Adding and Subtracting Whole Numbers</i>	4.N.10	4.NSO-C.25	Select and use appropriate operations (addition, subtraction, multiplication, and division) to solve problems, including those involving money.
	4.N.12	4.NSO-C.15	Add and subtract up to five-digit numbers accurately and efficiently.
	4.N.14	4.NSO-C.14	Demonstrate an understanding of and the ability to use conventional algorithms for the addition and subtraction of multi-digit whole numbers.
Lesson 3: <i>Multiplication and Division Facts</i>	4.N.8	4.NSO-C.17	Select, use, and explain various meanings and models of multiplication and division of whole numbers. Understand and use the inverse relationship between the two operations.

	4.N.10	4.NSO-C.25	Select and use appropriate operations (addition, subtraction, multiplication, and division) to solve problems, including those involving money.
	4.N.11	4.NSO-C.18	Know multiplication facts through 12×12 and the inverse division facts. Use these facts to solve related multiplication problems and compute related problems.
Lesson 4: <i>Multiplying Whole Numbers</i>	4.N.12 4.N.14	4.NSO-C.19	Demonstrate understanding of and the ability to use the conventional algorithms for multiplication of up to a three-digit whole number by a two-digit whole number. Multiply three-digit whole numbers by two-digit whole numbers accurately and efficiently.
Lesson 5: <i>Dividing Whole Numbers</i>	4.N.13 4.N.15	4.NSO-C.20	Demonstrate understanding of and the ability to use the conventional algorithm for division of up to a three-digit whole number with a single-digit divisor (with or without remainders). Divide up to a three-digit whole number with a single-digit divisor accurately and efficiently. Interpret any remainders.
Lesson 6: <i>Adding and Subtracting Fractions</i>	4.N.18	4.NSO-C.16	Use concrete objects and visual models to add and subtract fractions where the denominators are equal or when one denominator is a multiple of the other (denominators 2 through 12, and 100).
Lesson 7: <i>Estimation</i>	4.N.17	4.NSO-E.30	Select and use a variety of strategies (e.g., front-end, rounding, and regrouping) to estimate quantities, measures, and the results of whole-number computations up to three-digit whole numbers and amounts of money to \$1,000 and to judge the reasonableness of answers.
Unit 3: Geometry			
Lesson 1: <i>Lines</i>	4.G.5	4.G.4	Describe and draw intersecting, parallel, and perpendicular lines.

Lesson 2: <i>Angles</i>	4.G.4	4.G.3	Know the definitions of a right angle, an acute angle, and an obtuse angle. Understand that 90° , 180° , 270° , and 360° are associated, respectively, with $1/4$, $1/2$, $3/4$, and full turns.
Lesson 3: <i>Plane Figures</i>	4.G.1	4.G.1	Compare and analyze attributes and other features (e.g., number of sides, faces, corners, right angles, diagonals, and symmetry) of two- and three-dimensional geometric shapes.
	4.G.2	4.G.2	Describe, model, draw, compare, and classify two- and three-dimensional shapes (e.g., circles, polygons, parallelograms, trapezoids, cubes, spheres, pyramids, cones, cylinders).
	4.G.9	4.G.7	Predict and validate the results of partitioning, folding, and combining two- and three-dimensional shapes.
Lesson 4: <i>Solid Figures</i>	4.G.1	4.G.1	Compare and analyze attributes and other features (e.g., number of sides, faces, corners, right angles, diagonals, and symmetry) of two- and three-dimensional geometric shapes.
	4.G.2	4.G.2	Describe, model, draw, compare, and classify two- and three-dimensional shapes (e.g., circles, polygons, parallelograms, trapezoids, cubes, spheres, pyramids, cones, cylinders).
	4.G.9	4.G.7	Predict and validate the results of partitioning, folding, and combining two- and three-dimensional shapes.
Lesson 5: <i>Coordinate Grids</i>	4.G.6	4.G.8	Using ordered pairs of numbers and/or letters, graph, locate, and identify points and describe paths (first quadrant).
Lesson 6: <i>Congruence and Similarity</i>	4.G.3	4.G.5	Recognize similar figures (two shapes, R and S , are similar if they are congruent after one of them is shrunk or expanded).
	4.G.7	4.G.6	Describe and apply techniques such as reflections (flips), rotations (turns), and translations (slides) for determining if two shapes are congruent.
Lesson 7: <i>Symmetry</i>	4.G.8	3.G.6	Identify and draw lines of symmetry in two-dimensional shapes.

Unit 4: Patterns, Relations, and Algebra			
Lesson 1: <i>Patterns</i>	4.P.1	4.PRA.1	Create, describe, extend, and explain geometric and numeric patterns, including multiplication patterns; generalize the rule for the pattern and make predictions when given a table of number pairs of a set of data.
Lesson 2: <i>Writing Open Sentences</i>	4.P.2	4.PRA.2	Use letters and other symbols (e.g., \blacktriangle , x) as variables in expressions and in equations or inequalities (mathematical sentences that use =, <, and >).
Lesson 3: <i>Solving Equations</i>	4.P.3	3.PRA.3	Determine values of variables in simple equations involving addition, subtraction, or multiplication.
Lesson 4: <i>Functions</i>	4.P.4	4.PRA.3	Use pictures, models, tables, charts, graphs, words, number sentences, and mathematical notations to interpret mathematical relationships.
	4.P.6	4.PRA.5	Determine how change in one variable relates to a change in a second variable, (e.g., input-output tables).
Lesson 5: <i>Proportional Relationships</i>	4.P.5	4.PRA.4	Solve problems involving proportional relationships, including unit pricing.
Unit 5: Measurement			
Lesson 1: <i>Customary Units of Measurement</i>	4.M.1 4.M.5	4.M.1	Identify and use appropriate metric and U.S. customary units and tools (e.g., ruler, protractor, graduated cylinder, thermometer) to estimate, measure, and solve problems involving length, area, volume, weight, time, angle size, and temperature.
Lesson 2: <i>Metric Units of Measurement</i>	4.M.1 4.M.5	4.M.1	Identify and use appropriate metric and U.S. customary units and tools (e.g., ruler, protractor, graduated cylinder, thermometer) to estimate, measure, and solve problems involving length, area, volume, weight, time, angle size, and temperature.

Lesson 3: <i>Measurement Conversions</i>	4.M.2	4.M.2	Carry out simple unit conversions within a system of measurement.
Lesson 4: <i>Perimeter</i>	4.M.4	4.M.4	Estimate and find area and perimeter of shapes, including irregular shapes, using diagrams, models, and grids or by measuring.
Lesson 5: <i>Area</i>	4.M.4	4.M.4	Estimate and find area and perimeter of shapes, including irregular shapes, using diagrams, models, and grids or by measuring.
Lesson 6: <i>Estimating Area</i>	4.M.4	4.M.4	Estimate and find area and perimeter of shapes, including irregular shapes, using diagrams, models, and grids or by measuring.
Lesson 7: <i>Time</i>	4.M.2	4.M.2	Carry out simple unit conversions within a system of measurement.
	4.M.3	4.M.3	Identify time to the minute on analog and digital clocks using a.m. and p.m. Compute elapsed time using a clock (e.g., hours and minutes since...) and using a calendar (e.g., days since...).
Unit 6: Data Analysis, Statistics, and Probability			
Lesson 1: <i>Tables and Tallies</i>	4.D.1	4.DASP.1	Collect and organize data using observations, measurements, surveys, or experiments, and identify appropriate ways to display the data.
	4.D.2	4.DASP.2	Match a representation of a data set, such as lists, tables, or graphs (including circle graphs), with the actual set of data.
	4.D.3	3.DASP.2	Construct, identify the main idea, and make predictions from various representations of data sets in the forms of tables, bar graphs (horizontal and vertical forms), pictographs, and tallies.
Lesson 2: <i>Bar Graphs</i>	4.D.1	4.DASP.1	Collect and organize data using observations, measurements, surveys, or experiments, and identify appropriate ways to display the data.
	4.D.2	4.DASP.2	Match a representation of a data set, such as lists, tables, or graphs (including circle graphs), with the actual set of data.
	4.D.3	3.DASP.2	Construct, identify the main idea, and make predictions from various representations of data sets in the forms of tables, bar graphs (horizontal and vertical forms), pictographs, and tallies.

Lesson 3: <i>Pictographs</i>	4.D.1	4.DASP.1	Collect and organize data using observations, measurements, surveys, or experiments, and identify appropriate ways to display the data.
	4.D.2	4.DASP.2	Match a representation of a data set, such as lists, tables, or graphs (including circle graphs), with the actual set of data.
	4.D.3	3.DASP.2	Construct, identify the main idea, and make predictions from various representations of data sets in the forms of tables, bar graphs (horizontal and vertical forms), pictographs, and tallies.
Lesson 4: <i>Line Plots</i>	4.D.1	4.DASP.1	Collect and organize data using observations, measurements, surveys, or experiments, and identify appropriate ways to display the data.
	4.D.2	4.DASP.2	Match a representation of a data set, such as lists, tables, or graphs (including circle graphs), with the actual set of data.
	4.D.3	3.DASP.2	Construct, identify the main idea, and make predictions from various representations of data sets in the forms of tables, bar graphs (horizontal and vertical forms), pictographs, and tallies.
Lesson 5: <i>Line Graphs</i>	4.D.1	4.DASP.1	Collect and organize data using observations, measurements, surveys, or experiments, and identify appropriate ways to display the data.
	4.D.2	4.DASP.2	Match a representation of a data set, such as lists, tables, or graphs (including circle graphs), with the actual set of data.
	4.D.3	3.DASP.2	Construct, identify the main idea, and make predictions from various representations of data sets in the forms of tables, bar graphs (horizontal and vertical forms), pictographs, and tallies.
Lesson 6: <i>Probability</i>	4.D.4	4.DASP.4	Represent the possible outcomes for a simple probability situation.
	4.D.5	4.DASP.5	List and count the number of possible combinations of objects from 3 sets.