

## MCAS/DCCAS Mathematics Correlation Chart Grade 5

<i>MCAS Finish Line Mathematics Grade 5</i>	<i>MCAS Standard</i>	<i>DCCAS Standard</i>	<i>DCCAS Standard Description</i>
<b>Unit 1: Number Sense</b>			
Lesson 1: <i>Whole Number Place Value</i>	5.N.2	5.NSO-N.1	Estimate, round, and manipulate very large (e.g., billions) and very small (e.g., thousandths) numbers; demonstrate an understanding of place value to billions and thousandths.
	5.N.3	5.NSO-N.2	Represent and compare very large (billions) and very small (thousandths) positive numbers in various forms, such as expanded notation without exponents, e.g., $9,724 = (9 \times 1,000) + (7 \times 100) + (2 \times 10) + 4$ .
Lesson 2: <i>Decimal Place Value</i>	5.N.2	5.NSO-N.1	Estimate, round, and manipulate very large (e.g., billions) and very small (e.g., thousandths) numbers; demonstrate an understanding of place value to billions and thousandths.
	5.N.3	5.NSO-N.2	Represent and compare very large (billions) and very small (thousandths) positive numbers in various forms, such as expanded notation without exponents, e.g., $9,724 = (9 \times 1,000) + (7 \times 100) + (2 \times 10) + 4$ .
Lesson 3: <i>Fractions and Mixed Numbers</i>	5.N.4	5.NSO-F.8	Explain different interpretations of fractions as a ratio of whole numbers, as parts of unit wholes, as parts of a collection, as division of whole numbers by whole numbers, and as locations on the number line.
Lesson 4: <i>Percents and Equivalent Forms</i>	5.N.5	5.NSO-F.10	Identify and determine common equivalent fractions, mixed numbers (with denominators 2, 4, 5, and 10), decimals, and percents, and explain why they represent the same value.

	5.N.13	5.NSO-C.13	Add and subtract fractions (including mixed numbers ) with like and unlike denominators (of 2, 3, 4, 5, 6, and 10), and express answers in the simplest form.
		5.NSO-C.17	Show an understanding of multiplication and division of fractions; multiply positive fractions with whole numbers.
Lesson 5: <i>Comparing and Ordering Numbers</i>	5.N.6	5.NSO-N.3	Find and position integers, fractions, mixed numbers, and decimals (both positive and negative) on the number line.
	5.N.7	5.NSO-N.4	Compare and order integers (including negative integers) and positive fractions, mixed numbers, decimals, and percents.
Lesson 6: <i>Primes, Composites, and Divisibility</i>	5.N.8	5.NSO-N.5	Apply the number theory concepts of common factor, common multiple, and divisibility rules for 2, 3, 5, and 10 to the solution of problems. Demonstrate an understanding of the concepts of prime and composite numbers.
Lesson 7: <i>Factors and Multiples</i>	5.N.8	5.NSO-N.5	Apply the number theory concepts of common factor, common multiple, and divisibility rules for 2, 3, 5, and 10 to the solution of problems. Demonstrate an understanding of the concepts of prime and composite numbers.
<b>Unit 2: Operations</b>			
Lesson 1: <i>Multiplying and Dividing Whole Numbers</i>	5.N.9	5.NSO-C.15	Solve problems involving multiplication and division of any whole number.
	5.N.12	5.NSO-C.19	Multiply positive decimals with whole numbers.
Lesson 2: <i>Operations with Decimals</i>	5.N.12	5.NSO-C.14	Add and subtract positive decimals.
		5.NSO-C.19	Multiply positive decimals with whole numbers.
Lesson 3: <i>Operations with Fractions</i>	5.N.9 5.N.13	5.NSO-C.13	Add and subtract fractions (including mixed numbers) with like and unlike denominators (of 2, 3, 4, 5, 6, and 10), and express answers in the simplest form.

		5.NSO-C.17	Show an understanding of multiplication and division of fractions; multiply positive fractions with whole numbers.
Lesson 4: <i>Adding and Subtracting Mixed Numbers</i>	5.N.13	5.NSO-C.13	Add and subtract fractions (including mixed numbers) with like and unlike denominators (of 2, 3, 4, 5, 6, and 10), and express answers in the simplest form.
Lesson 5: <i>Operation Properties</i>	5.N.10	5.NSO-C.22	Demonstrate an understanding of how parentheses affect expressions involving addition, subtraction, and multiplication, and use that understanding to solve problems.
	5.N.11	5.NSO-C.21	Know integer subtraction is the inverse of integer addition; use the number line to model addition and subtraction of integers and add and subtract integers, with the exception of subtracting negative integers.
Lesson 6: <i>Exponents</i>	5.N.1	5.NSO-C.20	Demonstrate an understanding of and compute (positive integer) powers of 10 (e.g., $10^2$ ); compute examples as repeated multiplication.
Lesson 7: <i>Estimation</i>	5.N.14	5.NSO-E.23	Estimate sums and differences of whole numbers, positive fractions, and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers. Use a variety of strategies and judge reasonableness of answers.
<b>Unit 3: Geometry, Part 1</b>			
Lesson 1: <i>Points and Lines</i>	5.G.3	5.G.3	Identify relationships among points, lines, and planes (e.g., intersecting, parallel, perpendicular).
Lesson 2: <i>Number Lines and Coordinate Grids</i>	5.N.6	5.NSO-N.3	Find and position integers, fractions, mixed numbers, and decimals (both positive and negative) on the number line.
	5.G.4	5.G.7	Graph points and identify coordinates of points on the Cartesian coordinate plane in the first two quadrants.

Lesson 3: <i>Angles</i>	5.M.2	5.M.7	Identify, measure, describe, classify, and draw various angles and triangles, given sides and the angle between them or given two angles and the side between them.
Lesson 4: <i>Triangles</i>	5.G.1	5.G.1	Identify polygons based on their properties, including types of interior angles, perpendicular or parallel sides, and congruence of sides (e.g., squares, rectangles, rhombuses, parallelograms, and trapezoids; isosceles, equilateral, and right triangles).
	5.M.5	5.M.6	Know that angles on a straight line add up to $180^\circ$ , interior angles of a triangle add up to $180^\circ$ , angles surrounding a point add up to $360^\circ$ , and interior angles of a quadrilateral add up to $360^\circ$ ; use these properties to solve problems.
<b>Unit 4: Geometry, Part 2</b>			
Lesson 1: <i>Quadrilaterals</i>	5.G.1	5.G.1	Identify polygons based on their properties, including types of interior angles, perpendicular or parallel sides, and congruence of sides (e.g., squares, rectangles, rhombuses, parallelograms, and trapezoids; isosceles, equilateral, and right triangles).
Lesson 2: <i>Solid Figures</i>	5.G.2	5.G.2	Identify, describe, and compare special types of three-dimensional shapes (e.g., cubes, prisms, spheres, cones, and pyramids) based on their properties, such as edges and faces.
Lesson 3: <i>Transformations</i>	5.G.5	5.G.6	Predict, describe, and perform transformations on two-dimensional shapes (e.g., translations, rotations, and reflections).
Lesson 4: <i>Congruence</i>	5.G.7	5.G.5	Determine if two triangles or two quadrilaterals are congruent by measuring sides or a combination of sides and angles.
Lesson 5: <i>Symmetry</i>	5.G.6	5.G.4	Identify and describe types of symmetry, including line and rotational.
<b>Unit 5: Patterns, Relations, and Algebra</b>			

Lesson 1: <i>Patterns</i>	5.P.1	5.PRA.1	Analyze and determine the rules for extending symbolic, arithmetic, and geometric patterns and progressions (e.g., ABCCCC...; 1, 5, 9, 13, ...; 3, 9, 27, ...).
Lesson 2: <i>Variables and Expressions</i>	5.P.2	5.PRA.2	Replace variables with given values, evaluate, and simplify.
	5.P.4	5.PRA.4	Represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols (e.g., input-output tables).
Lesson 3: <i>Equations and Inequalities</i>	5.P.3	5.PRA.3	Use the properties of equality to solve problems with whole numbers.
	5.P.4	5.PRA.4	Represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols (e.g., input-output tables).
Lesson 4: <i>Functions</i>	5.P.4	5.PRA.4	Represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols (e.g., input-output tables).
	5.P.5	5.PRA.6	Solve problems involving proportional relationships using concrete models, tables, graphs, and paper-pencil methods.
Lesson 5: <i>Graphing Relationships</i>	5.P.4	5.PRA.4	Represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols (e.g., input-output tables).
	5.P.5	5.PRA.6	Solve problems involving proportional relationships using concrete models, tables, graphs, and paper-pencil methods.
	5.P.6	5.PRA.7	Interpret graphs that represent the relationship between two variables in everyday situations.
<b>Unit 6: Measurement</b>			
Lesson 1: <i>Customary Units of Measurement</i>	5.M.3	4.M.2	Carry out simple unit conversions within a system of measurement.

Lesson 2: <i>Metric Units of Measurement</i>	5.M.3	4.M.2	Carry out simple unit conversions within a system of measurement.
Lesson 3: <i>Perimeter</i>	5.M.1	5.M.1	Apply the concepts of perimeter and area to the solution of problems involving triangles and rectangles. Apply formulas where appropriate.
Lesson 4: <i>Area</i>	5.M.1	5.M.1	Apply the concepts of perimeter and area to the solution of problems involving triangles and rectangles. Apply formulas where appropriate.
Lesson 5: <i>Surface Area and Volume</i>	5.M.4	5.M.5	Find volumes and surface areas of rectangular prisms.
<b>Unit 7: Data Analysis, Statistics, and Probability</b>			
Lesson 1: <i>Minimum, Maximum, and Range</i>	5.D.1	6.DASP.1	Describe and compare data sets using the concepts of median, mean, mode, maximum and minimum, and range.
Lesson 2: <i>Mean, Median, and Mode</i>	5.D.1	5.DASP.1	Define and apply the concepts of mean to solve problems.
		6.DASP.1	Describe and compare data sets using the concepts of median, mean, mode, maximum and minimum, and range.
Lesson 3: <i>Line Plots</i>	5.D.2	5.DASP.2	Construct, draw conclusions, and make predictions from various representations of data sets, including tables, line graphs, line plots, circle graphs, and bar graphs (where symbols or scales represent multiple units).
Lesson 4: <i>Bar Graphs</i>	5.D.2	5.DASP.2	Construct, draw conclusions, and make predictions from various representations of data sets, including tables, line graphs, line plots, circle graphs, and bar graphs (where symbols or scales represent multiple units).

Lesson 5: <i>Line Graphs</i>	5.D.2	5.DASP.2	Construct, draw conclusions, and make predictions from various representations of data sets, including tables, line graphs, line plots, circle graphs, and bar graphs (where symbols or scales represent multiple units).
Lesson 6: <i>Circle Graphs</i>	5.D.2	5.DASP.2	Construct, draw conclusions, and make predictions from various representations of data sets, including tables, line graphs, line plots, circle graphs, and bar graphs (where symbols or scales represent multiple units).
Lesson 7: <i>Probability</i>	5.D.3	5.DASP.3	Predict the probability of outcomes of simple experiments and test the predictions.