MCAS/DCCAS Mathematics Correlation Chart
Grade 7

MCAS Finish Line Mathematics Grade 7	*MCAS Standard*	*DCCAS Standard*	*DCCAS Standard Description*
Unit 1: Number Sense			
Lesson 1: *Integers and Absolute Value*	7.N.1	7.NSO-N.1	Compare, order, estimate, and translate among integers, fractions, mixed numbers (i.e., rational numbers), decimals, and percents.
	7.N.4	7.NSO-N.3	Know the concept of absolute value (e.g., $\lvert -3 \rvert = \lvert 3 \rvert = 3$).
Lesson 2: *Exponents and Scientific Notation*	7.N.3	7.NSO-N.4	Represent numbers in scientific notation (positive powers of 10 only), and use that notation in problem situations.
	7.N.5	7.NSO-C.19	Know and apply the Order of Operations rules to expressions involving powers and roots.
Lesson 3: *Percents and Equivalent Forms*	7.N.1	7.NSO-N.1	Compare, order, estimate, and translate among integers, fractions, mixed numbers (i.e., rational numbers), decimals, and percents.
Lesson 4: *Comparing Rational Numbers*	7.N.1	7.NSO-N.1	Compare, order, estimate, and translate among integers, fractions, mixed numbers (i.e., rational numbers), decimals, and percents.
Lesson 5: *Ratios and Proportions*	7.N.2	7.NSO-C.14	Use ratios and proportions in the solution of problems involving unit rates, scale drawings, and reading of maps.
Lesson 6: *Rates and Scale Drawings*	7.N.2	7.NSO-C.14	Use ratios and proportions in the solution of problems involving unit rates, scale drawings, and reading of maps.
Unit 2: Operations, Part 1			
Lesson 1: *Operations with Integers*	7.N.6	7.NSO-C.17	Use the inverse relationships of addition/subtraction and multiplication/division to simplify computations and solve problems (e.g., multiplying by 1/2 or 0.5 is the same as dividing by 2).

	7.N.7	7.NSO-C.10	Compute with fractions (including simplification of fractions), integers, decimals, and percentages (including those greater than 100 and less than 1) using the four operations and combinations of the four operations.
	7.N.9	7.NSO-C.12	Select and use appropriate operations—addition, subtraction, multiplication, division—to solve problems with rational numbers and negative integers.
Lesson 2: *Operations with Decimals*	7.N.6	7.NSO-C.17	Use the inverse relationships of addition/subtraction and multiplication/division to simplify computations and solve problems (e.g., multiplying by 1/2 or 0.5 is the same as dividing by 2).
	7.N.7	7.NSO-C.10	Compute with fractions (including simplification of fractions), integers, decimals, and percentages (including those greater than 100 and less than 1) using the four operations and combinations of the four operations.
	7.N.9	7.NSO-C.12	Select and use appropriate operations—addition, subtraction, multiplication, division—to solve problems with rational numbers and negative integers.
Lesson 3: *Laws of Exponents*	7.N.5	7.NSO-C.19	Know and apply the Order of Operations rules to expressions involving powers and roots.
Lesson 4: *Order of Operations*	7.N.5	7.NSO-C.19	Know and apply the Order of Operations rules to expressions involving powers and roots.
Unit 3: Operations, Part 2			
Lesson 1: *Operations with Fractions*	7.N.6	7.NSO-C.17	Use the inverse relationships of addition/subtraction and multiplication/division to simplify computations and solve problems (e.g., multiplying by 1/2 or 0.5 is the same as dividing by 2).

	7.N.7	7.NSO-C.10	Compute with fractions (including simplification of fractions), integers, decimals, and percentages (including those greater than 100 and less than 1) using the four operations and combinations of the four operations.
	7.N.9	7.NSO-C.12	Select and use appropriate operations—addition, subtraction, multiplication, division—to solve problems with rational numbers and negative integers.
Lesson 2: *Operations with Percents*	7.N.7	7.NSO-C.10	Compute with fractions (including simplification of fractions), integers, decimals, and percentages (including those greater than 100 and less than 1) using the four operations and combinations of the four operations.
	7.N.9	7.NSO-C.12	Select and use appropriate operations—addition, subtraction, multiplication, division—to solve problems with rational numbers and negative integers.
Lesson 3: *Percents Less than 1% and Greater than 100%*	7.N.1	7.NSO-N.1	Compare, order, estimate, and translate among integers, fractions, mixed numbers (i.e., rational numbers), decimals, and percents.
	7.N.7	7.NSO-C.10	Compute with fractions (including simplification of fractions), integers, decimals, and percentages (including those greater than 100 and less than 1) using the four operations and combinations of the four operations.
	7.N.9	7.NSO-C.12	Select and use appropriate operations—addition, subtraction, multiplication, division—to solve problems with rational numbers and negative integers.
Lesson 4: *Estimation*	7.N.7	7.NSO-C.10	Compute with fractions (including simplification of fractions), integers, decimals, and percentages (including those greater than 100 and less than 1) using the four operations and combinations of the four operations.

Unit 4: Geometry			
Lesson 1: *Intersecting Lines and Angles*	7.G.3	8.G.2	Demonstrate an understanding of the relationships of angles formed by intersecting lines, including parallel lines cut by a transversal.
Lesson 2: *Parallel Lines and Transversals*	7.G.3	8.G.2	Demonstrate an understanding of the relationships of angles formed by intersecting lines, including parallel lines cut by a transversal.
Lesson 3: *Angles of Polygons*	7.G.1	8.G.1	Analyze, apply, and explain the relationship between the number of sides and the sums of the interior and exterior angle measures of polygons.
Lesson 4: *Solid Figures*	7.G.7	7.G.1	Identify three-dimensional figures (e.g., prisms, pyramids) by their physical appearance, distinguishing attributes, and spatial relationships, such as parallel faces.
Lesson 5: *Transformations*	7.G.4	6.G.4	Graph points and identify coordinates of points on the Cartesian coordinate plane in all four quadrants.
	7.G.6	7.G.6	Understand and use coordinate graphs to plot simple figures; determine lengths and areas related to them; and determine their image under translations, reflections, and rotations (e.g., predict how tessellations transform under translations, reflections, and rotations).
Lesson 6: *Congruence*	7.G.2	7.G.3	Classify figures in terms of congruence and similarity, and apply these relationships to the solution of problems.
Lesson 7: *Similarity*	7.G.2	7.G.3	Classify figures in terms of congruence and similarity, and apply these relationships to the solution of problems.
Unit 5: Patterns, Relations, and Algebra			
Lesson 1: *Algebraic Expressions*	7.P.2	7.PRA.2	Evaluate simple algebraic expressions for given variable values (e.g., $3a^2 - b$ for $a = 3$ and $b = 7$).
	7.P.3	7.PRA.4	Create and use symbolic expressions for linear relationships, and relate them to verbal and graphical representations.

Lesson 2: *Patterns*	7.P.1	7.PRA.1	Extend, represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic expressions. Include arithmetic and geometric progressions (e.g., compounding).
Lesson 3: *Writing and Solving Equations*	7.P.3	7.PRA.4	Create and use symbolic expressions for linear relationships, and relate them to verbal and graphical representations.
	7.P.4	7.PRA.6	Write and solve two-step linear equations and check the answers.
Lesson 4: *Linear Relationships*	7.P.3	7.PRA.4	Create and use symbolic expressions for linear relationships, and relate them to verbal and graphical representations.
	7.P.4	7.PRA.6	Write and solve two-step linear equations and check the answers.
	7.P.5	7.PRA.7	Identify, describe, and analyze linear relationships between two variables. Compare positive rate of change (e.g., $y = 3x + 1$) to negative rate of change (e.g., $y = -3x + 1$).
	7.P.6	7.PRA.8	Use linear equations to model and analyze problems involving proportional relationships.
Lesson 5: *Graphing Linear Relationships*	7.P.3	7.PRA.4	Create and use symbolic expressions for linear relationships, and relate them to verbal and graphical representations.
	7.P.4	7.PRA.6	Write and solve two-step linear equations and check the answers.
	7.P.5	7.PRA.7	Identify, describe, and analyze linear relationships between two variables. Compare positive rate of change (e.g., $y = 3x + 1$) to negative rate of change (e.g., $y = -3x + 1$).
	7.P.6	7.PRA.8	Use linear equations to model and analyze problems involving proportional relationships.
Unit 6: Measurement			
Lesson 1: *Customary Units of Measurement*	7.M.1	7.M.1	Select, convert (between systems of measurement), and use appropriate units of measurement or scale

Lesson 2: *Metric Units of Measurement*	7.M.1	7.M.1	Select, convert (between systems of measurement), and use appropriate units of measurement or scale
Lesson 3: *Converting Measurement*	7.M.2	7.M.1	Select, convert (between systems of measurement), and use appropriate units of measurement or scale
Lesson 4: *Perimeter and Circumference*	7.M.3	7.M.2	Demonstrate an understanding of the concepts and apply formulas and procedures for determining measures, including those of area and perimeter/circumference of parallelograms, trapezoids, and circles. Given the formulas, determine the surface area and volume of rectangular prisms and cylinders.
Lesson 5: *Area*	7.M.3	7.M.2	Demonstrate an understanding of the concepts and apply formulas and procedures for determining measures, including those of area and perimeter/circumference of parallelograms, trapezoids, and circles. Given the formulas, determine the surface area and volume of rectangular prisms and cylinders.
Lesson 6: *Surface Area*	7.M.3	7.M.2	Demonstrate an understanding of the concepts and apply formulas and procedures for determining measures, including those of area and perimeter/circumference of parallelograms, trapezoids, and circles. Given the formulas, determine the surface area and volume of rectangular prisms and cylinders.
Lesson 7: *Volume*	7.M.3	7.M.2	Demonstrate an understanding of the concepts and apply formulas and procedures for determining measures, including those of area and perimeter/circumference of parallelograms, trapezoids, and circles. Given the formulas, determine the surface area and volume of rectangular prisms and cylinders.
Unit 7: Data Analysis, Statistics, and Probability			
Lesson 1: *Statistics*	7.D.1	7.DASP.2	Select, create, interpret, and use various tabular and graphical representations of data (e.g., circle graphs, Venn diagrams, stem-and-leaf plots, histograms, tables, and charts).

	7.D.2	7.DASP.1	Find, describe, and interpret appropriate measures of central tendency (mean, median, and mode) and spread (range) that represent a set of data.
Lesson 2: *Stem-and-Leaf Plots*	7.D.1	7.DASP.2	Select, create, interpret, and use various tabular and graphical representations of data (e.g., circle graphs, Venn diagrams, stem-and-leaf plots, histograms, tables, and charts).
	7.D.2	7.DASP.1	Find, describe, and interpret appropriate measures of central tendency (mean, median, and mode) and spread (range) that represent a set of data.
Lesson 3: *Venn Diagrams*	7.D.1	7.DASP.2	Select, create, interpret, and use various tabular and graphical representations of data (e.g., circle graphs, Venn diagrams, stem-and-leaf plots, histograms, tables, and charts).
Lesson 4: *Circle Graphs*	7.D.1	7.DASP.2	Select, create, interpret, and use various tabular and graphical representations of data (e.g., circle graphs, Venn diagrams, stem-and-leaf plots, histograms, tables, and charts).
Lesson 5: *Probability of Compound Events*	7.D.3	7.DASP.4	Use tree diagrams, tables, organized lists, and area models to compute probabilities for simple compound events (e.g., multiple coin tosses or rolls of dice).