MATHEMATICS CURRICULUM MAP

8th Grade Mathematics

(Pre-Algebra Pathway)

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Deerfield Public Schools District 109
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Grade 8 Pre-Algebra: Year at a Glance		
Resource: Big Ideas Math: Grade 8 MRL CC		
Semester 1	**Standards**	**Big Ideas**
Review		
Equations	8.EE.7, 8.EE.7a, 8.EE.7b (Solve linear equations in one variable - variables on both sides, multi-step including, special solutions, and writing and solving equations for word problems)	Chapter 1
Real Numbers and the Pythagorean Theorem	8.EE.2 (Square root and cube roots and equations) 8.NS.1 (Irrational versus rational numbers and decimal expansions) 8.NS.2 (Rational number approximations of irrational numbers) 8.G.6 (Proof of Pythagorean Theorem) 8.G.7 (Apply Pythagorean Theorem to determine unknown side length) 8.G.8 (Apply Pythagorean Theorem to find distance between points)	Chapter 9
Transformations	8.G.1, 8.G.1a, 8.G.1b, 8.G.1c (Verify properties of transformations) 8.G.2 (Understand congruence using transformation) 8.G.3 (Describe effects of transformations in plane) 8.G.4 (Understand similarity using transformation)	Chapter 2
Angles and Triangles	8.G.5 (Angles, parallel lines cut by transversal, similar triangles, indirect measurement)	Chapter 3
Graphing and Writing Linear Equations	8.EE.5 (graph and compare proportional relationships/ direct variation) 8.EE.6 (slope-intercept form and explaining slope) 8.F.4 (Slope intercept and interpreting the rate of change and initial value of a linear function)	Chapter 4
Semester 2	**Standards**	**Big Ideas**
Continued: Graphing and Writing Linear Equations		Chapter 4
Systems of	8.EE.8 (Analyze and solve pairs of simultaneous linear equations.)	Chapter 5

Linear Equations	8.EE.8a (Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs) 8.EE.8b (Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection) 8.EE.8c (Solve real-world and mathematical problems leading to two linear equations in two variables.)	
Functions	8.F.1 (Understand that a function is a rule that assigns to each input exactly one output) 8.F.2 (Compare properties of two functions, each represented in a different way) 8.F.3 (Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.) 8.F.4 (Slope intercept and interpreting the rate of change and initial value of a linear function) 8.F.5 (Describe the functional relationship between two quantities by analyzing a graph and sketch a graph given a verbal description)	Chapter 7
Exponents and Scientific Notation	8.EE.1 (Integer exponents) 8.EE.3 (Very small and very large quantities; integers multiplied by a power of 10) 8.EE.4 (Scientific notation)	Chapter 8
Volume and Similar Solids	8.G.9 (Volume of cones, cylinders, and spheres)	Chapter 10
Data Analysis and Displays	8.SP.1 (Scatter plots) 8.SP.2 (Line of best fit) 8.SP.3 (Interpret slope in data representation) 8.SP.4 (Two-way tables)	Chapter 6
End of Year Review		

Priority Standards: Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is necessary. These standards are taught in-depth to full mastery.

Supporting vs. Additional: Supporting standards (highlighted in blue) are designed to strengthen the areas of major emphasis. Connections are clear and emphasize coherence between topics. Additional standards (highlighted in yellow) do not connect as tightly as supporting standards.