Seventh Grade Mathematics Curriculum Map

Note: The following timeline and sequence is meant to be a guide only and is subject to change.

(revised 2008-09)

Grade Level Content Expectations	1st Trimester			2nd Trimester			3rd Trimester		
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
N.FL.07.07 Solve problems involving operations with integers.		X							
Resources:									
N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.*			X						
Resources:									
N.FL.07.09 Estimate results of computations with rational numbers.			X						
Resources:									
A.FO.07.12 Add, subtract, and multiply simple algebraic expressions of the first degree, e.g., (92x + 8y) – 5x + y, or x(x+2) and justify using properties of real numbers.*			X						
Resources:									
A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.			X						
Resources:									
A.FO.07.13 From applied situations, generate and solve linear equations of the form ax + b = c and ax + b = cx + d, and interpret solutions.			X						
Resources:									
N.FL.07.03 Calculate rates of change including speed.				X					
Resources:									
N.MR.07.06 Understand the concept of square root and cube root, and estimate using calculators.				X					
Resources:									
N.MR.07.04 Convert ratio quantities between different systems of units, such as feet per second to miles per hour.				X					
Resources:									
N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation a/b = c/d; know how to see patterns about proportional situations in tables.*				X					
Resources:									
G.SR.07.01 Use a ruler and other tools to draw squares, rectangles, triangles, and parallelograms with specified dimensions.					X				
Resources:									
G.SR.07.02 Use compass and straightedge to perform basic geometric constructions: the perpendicular bisector of a segment, an equilateral triangle, and the bisector of an angle; understand informal justifications.					X				
Resources:									
G.TR.07.03 Understand that in similar polygons, corresponding angles are congruent and the ratios of corresponding sides are equal; understand the concepts of similar figures and scale factor.						X			
Resources:									

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G.TR.07.04 Solve problems about similar figures and scale drawings.										X								
Resources:																		
G.TR.07.05 Show that two triangles are similar using the criteria: corresponding angles are congruent (AAA similarity); the ratios of two pairs of corresponding sides are equal and the included angles are congruent (SAS similarity); ratios of all pairs of corresponding sides are equal (SSS similarity); use these criteria to solve problems and to justify arguments.											X							
Resources:																		
G.TR.07.06 Understand and use the fact that when two triangles are similar with scale factor of r, their areas are related by a factor of r squared.											X							
Resources:																		
D.RE.07.01 Represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and select appropriate representation to address specific questions.												X						
Resources:																		
D.AN.07.04 Find and interpret the median, quartiles, and interquartile range of a given set of data.												X						
Resources:																		
D.AN.07.02 Create and interpret scatter plots and find line of best fit; use an estimated line of best fit to answer questions about the data.													X					
Resources:																		
D.AN.07.03 Calculate and interpret relative frequencies and cumulative frequencies for given data sets.													X					
Resources:																		
A.PA.07.03 Given a directly proportional or other linear situation, graph and interpret the slope and intercept(s) in terms of the original situation; evaluate y = mx + b for specific x values, e.g., weight vs. volume of water, base cost plus cost per unit.*														X				
Resources:																		
A.RP.07.10 Know that the graph of y = k/x is not a line, know its shape, and know that it crosses neither the x nor the y-axis.														X				
Resources:																		
A.PA.07.06 Calculate the slope from the graph of a linear function as the ratio of "rise/run" for a pair of points on the graph, and express the answer as a fraction and a decimal; understand that linear functions have slope that is a constant rate of change.															X			
Resources:																		
A.PA.07.07 Represent linear functions in the form y = x + b, y = mx, and y = mx + b, and graph, interpreting slope and y-intercept.															X			
Resources:																		
A.FO.07.08 Find and interpret the x and/or y intercepts of a linear equation or function. Know that the solution to a linear equation of the form ax+b=0 corresponds to the point at which the graph of y=ax+b crosses the x axis.*															X			

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Resources:									
N.MR.07.02 Solve problems involving derived quantities such as density, velocity, and weighted averages.*								X	
Resources:									
A.PA.07.01 Recognize when information given in a table, graph, or formula suggests a directly proportional or linear relationship.*									X
Resources:									
A.PA.07.09 Recognize inversely proportional relationships in contextual situations; know that quantities are inversely proportional if their product is constant, e.g., the length and width of a rectangle with fixed area, and that an inversely proportional relationship is of the form y = k/x where k is some non-zero number.									X
Resources:									
A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.									X
Resources:									
A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations, e.g., the heights and volume of a container with uniform cross-section; height of water in a tank being filled at a constant rate; degrees Celsius and degrees Fahrenheit; distance and time under constant speed.									X
Resources:									
A.PA.07.05 Recognize and use directly proportional relationships of the form y = mx, and distinguish from linear relationships of the form y = mx + b, b non-zero; understand that in a directly proportional relationship between two quantities one quantity is a constant multiple of the other quantity.*									X
Resources:									