2016 Mathematics Vertical Articulation Grades K – Algebra II SOL by Strand Concepts

NNS = Number and Number Sense; C&E = Computation and Estimation; M&G = Measurement and Geometry; P&S = Probability and Statistics; PFA = Patterns, Functions, and Algebra

NNS- STRAND CONCEPT	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Related to Algebra I	Related to Geometry	Related to Algebra II
Number Identification and Representation	K.1ab; K.3abcd; K.4ab	1.1abcd; 1.2a; 1.3; 1.5ab	2.1ab; 2.2ab; 2.3ab	3.1a	4.1a							
Whole Number and Decimal Rounding			2.1d	3.1b	4.1c; 4.3b	5.1						
Rational Numbers - Compare and Order	K.2ab	1.2bc	2.1c; 2.4c	3.1c, 3.2c	4.1b; 4.2a; 4.3c	5.2b	6.2b; 6.3b	7.1bc	8.1			
Rational Number Equivalencies	K.5	1.4ab	2.4ab	3.2ab	4.2bc; 4.3ad	5.2a	6.1; 6.2a					
Number Sets and Characteristics			2.2c			5.3ab	6.3ac	7.1e	8.2			
Exponents/Squares/Square Roots							6.4	7.1ad	8.3ab	A.3b,c		

C&E- STRAND CONCEPT	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Related to Algebra I	Related to Geometry	Related to Algebra II
Fluency - Whole Number Operations		1.7ab	2.5b	3.4c	4.4a							
Whole Number Estimation and Operations			2.5a; 2.6ab	3.3a, 3.4a	4.4bc	5.7						
Rational Number Estimation and Operations					4.5ab; 4.6a	5.5a	6.5a; 6.6ac					
Practical Applications – Whole Numbers	K.6	1.6	2.6c	3.3b; 3.4bd	4.4d							
Practical Applications - Rational Numbers and Proportional Reasoning				3.5	4.5c; 4.6b	5.4; 5.5b; 5.6ab	6.5bc; 6.6b	7.2; 7.3	8.4			

M&G- STRAND CONCEPT	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Related to Algebra I	Related to Geometry	Related to Algebra II
Money	K.7	1.8	2.7ab	3.6abc								
Time	K.8	1.9ab	2.9; 2.10ab	3.9abc	4.9	5.11						
Length, Weight/Mass, Liquid Volume, and Temperature	K.9	1.10	2.8ab; 2.11	3.7ab; 3.10	4.8abcd	5.9ab						
Area, Perimeter, and Circumference				3.8ab	4.7	5.8ab	6.7abc		8.10			
Volume and Surface Area								7.4ab	8.6ab		G.13; G.14abcd	

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M&G- STRAND CONCEPT	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Related to Algebra I	Related to Geometry	Related to Algebra II
Point, Line, Line Segment, Ray and Angle - Identify, Describe, Classify and Measure				3.11	4.10ab	5.12			8.5		G.2ab	
Circles and Polygons - Identify and Describe	K.10ac	1.11ab		3.12abc		5.10; 5.14b					G.12	
Circles and Polygons – Classify and Measure			2.12a,b		4.12	5.13ab		7.6ab	8.9ab		G.5abcd; G.8abc; G.9; G.10abc; G.11abcd	
Plane (2-D) and Solid (3-D) Figures - Compare, Contrast, and Construct	K.10b		2.13		4.11				8.8		G.4abcdefgh	
Congruency and Similarity				3.13			6.9	7.5			G.6; G.7	
Coordinate Plane and Transformations						5.14a	6.8ab	7.7	8.7ab		G.3abcd	
P&S- STRAND CONCEPT	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Related to Algebra I	Related to Geometry	Related to Algebra II
Measures of Central Tendency						5.17abcd	6.11ab					AII.10; AII.11abc; AII.12
Outcomes and Probability			2.14	3.14	4.13abc	5.15		7.8ab	8.11ab			
Data Representation and Interpretation	K.11ab	1.12ab	2.15ab	3.15ab	4.14abc	5.16abc	6.10abc	7.9abc	8.12abc; 8.13abc	A.9		AII.9
PFA - STRAND CONCEPT	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Related to Algebra I	Related to Geometry	Related to Algebra II
Equality/Solving Equations		1.15	2.17	3.17	4.16	5.19bd	6.13	7.12	8.17	A.4abcde		AII.3abcd; AII.4
Solving Inequalities							6.14ab	7.13	8.18	A.5abcd		AII.3a
Algebraic Expressions						5.19ac		7.11	8.14ab	A.1ab; A.2abc; A.3a		AII.1abc; AII.2
Proportional and Additive Relationships; Slope; Linear Functions							6.12abcd	7.10abcde	8.16abcde	A.6abc; A.8		AII.5
Patterns, Relations and Functions	K.12; K.13	1.13; 1.14	2.16	3.16	4.15	5.18			8.15ab	A.7abcdef		AII.6ab; AII.7a-k; AII.8

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