

Appendix B

NJSLS Mastery Standards

Grades 3 - 8 Cluster Emphasis

3 rd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8 th Grade
3.OA.1-M	4.OA.1-M	5.OA.1-A	6.RP.1-M	7.RP.1-M	8.NS.1 - S
3.OA.2-M	4.OA.2-M	5.OA.2-A	6.RP.2-M	7.RP.2a-M	8.NS.2 -S
3.OA.3-M	4.OA.3 -M	5.OA.3 -A	6.RP.3a-M	7.RP.2b-M	8.EE.1-M
3.OA.4-M	4.OA.4- S	5.NBT.1-M	6.RP.3b-M	7.RP.2c-M	8.EE.2-M
3.OA.5-M	4.OA.5 -A	5.NBT.2 - M	6.RP.3c-M	7.RP.2d-M	8.EE.3 -M
3.OA.6-M	4.NBT.1-M	5.NBT.3a-M	6.RP.3d-M	7.RP.3-M	8.EE.4-M
3.OA.7-M	4.NBT.2-M	5.NBT.3b - M	6.NS.1-M	7.NS.1a-M	8.EE.5-M
3.OA.8-M	4.NBT.3 - M	5.NBT.4-M	6.NS.2-A	7.NS.1b-M	8.EE.6-M
3.OA.9-M	4.NBT.4-M	5.NBT.5-M	6.NS.3 -A	7.NS.1c-M	8.EE.7a-M
3.NBT.1-A	4.NBT.5-M	5.NBT.6-M	6.NS.4-A	7.NS.1d-M	8.EE.7b-M
3.NBT.2-A	4.NBT.6-M	5.NBT.7-M	6.NS.5-M	7.NS.2a-M	8.EE.8a-M
3.NBT.3 -A	4.NF.1-M	5.NF.1-M	6.NS.6a-M	7.NS.2b- M	8.EE.8b-M
3.NF.1-M	4.NF.2-M	5.NF.2-M	6.NS.6b-M	7.NS.2c- M	8.EE.8c-M
3.NF.2a-M	4.NF.3a-M	5.NF.3-M	6.NS.6c-M	7.NS.2d-M	8.F.1 - M.
3.NF.2b-M	4.NF.3b-M	5.NF.4a-M	6.NS.7a-M	7.NS.3- M	8.F.2-M
3.NF.3a-M	4.NF.3c-M	5.NF.4b-M	6.NS.7b-M	7.EE.1-M	8.F.3 - M.
3.NF.3b-M	4.NF.3d-M	5.NF.5a-M	6.NS.7c-M	7.EE.2-M	8.F.4 - S
3.NF.3c-M	4.NF.4a-M	5.NF.5b-M	6.NS.7d-M	7.EE.3-M	8.F.5 - S
3.NF.3d-M	4.NF.4b-M	5.NF.6-M	6.NS.8-M	7.EE.4a-M	8.G.1a-M
3.MD.1-M	4.NF.4c-M	5.NF.7a-M	6.EE.1-M	7.EE.4b - M	8.G.1b-M
3.MD.2-M	4.NF.5-M	5.NF.7b-M	6.EE.2a-M	7.G.1-A	8.G.1c-M
3.MD.3 - S	4.NF.6-M	5.NF.7c-M	6.EE.2b-M	7.G.2-A	8.G.2-M
3.MD.4-S	4.NF.7 - M	5.MD.1-S	6.EE.2c-M	7.G.3 -A	8.G.3 -M
3.MD.5a-M	4.MD.1- S	5.MD.2 - S	6.EE.3-M	7.G.4-A	8.G.4-M
3.MD.5b-M	4.MD.2-S	5.MD.3a-M	6.EE.4-M	7.G.5-A	8.G.5-M
3.MD.6-M	4.MD.3 - S	5.MD.3b-M	6.EE.5-M	7.G.6 - A	8.G.6-M
3.MD.7a-M	4.MD.4- S	5.MD.4-M	6.EE.6-M	7.SP.1 - S	8.G.7- M.
3.MD.7b-M	4.MD.5a-A	5.MD.5a-M	6.EE.7-M	7.SP.2- S	8.G.8 - M
3.MD.7c-M	4.MD.5b-A	5.MD.5b-M	6.EE.8-M	7.SP.3 -A	8.G.9-A
3.MD.7d-M	4.MD.6-A	5.MD.5c-M	6.EE.9- M	7.SP.4-A	8.SP.1 - S
3.MD.8-A	4.MD.7-A	5.G.1-A	6.G.1- S	7.SP.5 - S	8.SP.2 - S
3.G.1 - S	4.G.1 -A	5.G.2-A	6.G.2 - S	7.SP.6- S	8.SP.3 - S
3.G.2- S	4.G.2-A	5.G.3 -A	6.G.3 - S	7.SP.7a-S	8.SP.4 - S
	4.G.3 -A	5.G.4 -A	6.G.4- S	7.SP.7b - S	
			6.SP.1-A	7.SP.8a - S	
			6.SP.2 -A	7.SP.8b- S	
			6.SP.3 -A	7.SP.8c- S	
			6.SP.4-A		
			6.SP.5a-A		
			6.SP.5b-A		
			6.SP.5c-A		
			6.SP.5d-A		

Major Content
Supporting Content
A
Additional Content

Critical Areas Kindergarten through Algebra II

<p>Kindergarten</p> <p>(1) represent, relating, and operating on whole numbers, initially with sets of objects</p> <p>(2) describe shapes and space</p> <p>More learning time in Kindergarten should be devoted to number than to other topics</p>	<p>1st Grade</p> <p>(1) develop an understanding of addition, subtraction, and strategies for addition and subtraction within 20</p> <p>(2) develop an understanding of whole number relationships and place value, including grouping in tens and ones</p> <p>(3) develop an understanding of linear measurement and measuring lengths as iterating length units</p> <p>(4) reason about attributes of, and compose and decompose geometric shapes</p>	<p>2nd Grade</p> <p>(1) extend understanding of base-ten notation</p> <p>(2) build fluency with addition and subtraction</p> <p>(3) use standard units of measure</p> <p>(4) describe and analyze shapes</p>
<p>3rd Grade</p> <p>(1) develop an understanding of multiplication and division and strategies for multiplication and division within 100</p> <p>(2) develop an understanding of fractions, especially unit fractions (fractions with numerator 1)</p> <p>(3) develop an understanding of the structure of rectangular arrays and of area</p> <p>(4) describe and analyze two-dimensional shapes</p>	<p>4th Grade</p> <p>(1) develop an understanding and fluency with multi-digit multiplication, and develop an understanding of dividing to find quotients involving multi-digit dividends</p> <p>(2) develop an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers</p> <p>(3) understand that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry</p>	<p>5th Grade</p> <p>(1) develop fluency with addition and subtraction of fractions, and develop an understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions)</p> <p>(2) extend division to 2-digit divisors, integrate decimal fractions into the place value system and develop understanding of operations with decimals to hundredths, and develop fluency with whole number and decimal operations</p> <p>(3) develop an understanding of volume</p>
<p>6th Grade</p> <p>(1) connect ratio and rate to whole number multiplication and division and use concepts of ratio and rate to solve problems</p> <p>(2) complete understanding of division of fractions and extend the notion of number to the system of rational numbers, which includes negative numbers</p> <p>(3) write, interpret, and use expressions and equations</p> <p>(4) develop an understanding of statistical thinking</p>	<p>7th Grade</p> <p>(1) develop an understanding of and apply proportional relationships</p> <p>(2) develop an understanding of operations with rational numbers and work with expressions and linear equations</p> <p>(3) solve problems involving scale drawings and informal geometric constructions, and work with two- and three-dimensional shapes to solve problems involving area, surface area, and volume</p> <p>(4) draw inferences about populations based on samples</p>	<p>8th Grade</p> <p>(1) formulate and reason about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations</p> <p>(2) grasp the concept of a function and using functions to describe quantitative relationships</p> <p>(3) analyze two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understand and apply the Pythagorean Theorem</p>
<p>Algebra I</p> <p>(1) relationships between quantities and reasoning with equations</p> <p>(2) linear and exponential relationships</p> <p>(3) descriptive statistics</p> <p>(4) expressions and equations</p> <p>(5) quadratic functions and modeling</p>	<p>Geometry</p> <p>(1) congruence, proof, and constructions</p> <p>(2) similarity, proof, and trigonometry</p> <p>(3) extending to three dimensions</p> <p>(4) connecting algebra and geometry through coordinates</p> <p>(5) circles with and without coordinates</p> <p>(6) applications of probability</p>	<p>Algebra II</p> <p>(1) polynomial, rational, and radical relationships</p> <p>(2) trigonometric functions</p> <p>(3) modeling with functions</p> <p>(4) connecting algebra and geometry through inferences and conclusions from data</p>

Fluency Expectations/Recommendations and Examples of Culminating Standards Kindergarten through Algebra II

<p>Kindergarten</p> <ul style="list-style-type: none"> • Add and subtract within 5 (K.OA.5) (fluency) 	<p>1st Grade</p> <ul style="list-style-type: none"> • Add and subtract within 10 (1.OA.6) (fluency) 	<p>2nd Grade</p> <ul style="list-style-type: none"> • Add and subtract within 20 using mental strategies (2.OA.2) (fluency) • Know sums of 2 one-digit numbers by memory (2.OA.2) (fluency) • Add and subtract within 100 (2.NBT.5) (fluency)
<p>3rd Grade</p> <ul style="list-style-type: none"> • Multiply and divide within 100 (3.OA.7) (fluency) • Know products of two-digit numbers from memory (3.OA.7) (fluency) • Add and subtract within 1000 (3.NBT.2) (fluency) 	<p>4th Grade</p> <ul style="list-style-type: none"> • Add and subtract multi-digit whole numbers (4.NBT.4) (fluency) • Add and subtract within 1,000,000 (4.NBT.4) (fluency) 	<p>5th Grade</p> <ul style="list-style-type: none"> • Multiply multi-digit whole numbers (5.NBT.5) (fluency)
<p>6th Grade</p> <ul style="list-style-type: none"> • Divide multi-digit whole numbers (6.NS.2) (fluency/culminating) • Add, subtract, multiply, and divide multi-digit decimals (6.NS.3) (fluency/culminating) • Divide fractions (6.NS.1) (culminating) 	<p>7th Grade</p> <ul style="list-style-type: none"> • Add, subtract, multiply, and divide rational numbers (7.NS.1-2) (culminating) • Solve multi-step problems with positive and negative rational numbers (7.EE.3) (culminating) • Solve equations $px+q=r$ and $p(x+q)=r$ (7.EE.4) (culminating) 	<p>8th Grade</p> <ul style="list-style-type: none"> • Solutions of one-variable linear equations where coefficients may be rational (8.EE.7) (culminating) • Set of geometric measurement skills (volume of cones, cylinders, and spheres-includes 7th grade work in angle measure, area, surface area and volume) (8.G.9) (culminating)
<p>Algebra I</p> <ul style="list-style-type: none"> • Analytic geometry of lines (A/G)(fluency recommendation) • Add, subtract, and multiply polynomials (A-APR. I) (fluency recommendation) • Transforming expressions and "chunking" (seeing parts of an expression as a single object) (A-SSE.1b) (fluency recommendation) 	<p>Geometry</p> <ul style="list-style-type: none"> • Triangle congruence and similarity criteria (G-SRT.5) (fluency recommendation) • Use coordinates to establish geometric results (G-GPE.4, 5, 7) (fluency recommendation) • Use construction tools (G-CO.12) (fluency recommendation) 	<p>Algebra II</p> <ul style="list-style-type: none"> • Divide polynomials with remainders by inspection in simple cases (A-APR.6) (fluency recommendation) • Rewrite expressions (A-SSE.2) (fluency recommendation) • Translate between recursive definitions and closed forms (F-IF.3) (fluency recommendation)