Avon School Mathematics Curriculum			
	Kinde	rgarten	
The Kindergarten instructional time and curriculum focuses on five critical areas: (1) counting and cardinality and number sense; (2) numbers and operation in base 10; (3) addition up to 10; (4) subtraction within 10; (5) measurement and data collection; (6) reasoning about attributes of, and composing and decomposing geometric shapes.			
Reference: New Jersey Department of Education. New Jersey Student Learning Standards, 2016. Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.			
Unit Title	Timeframe	New Jersey Student Learning Standards	
Counting and Cardinality	September-October	K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.4.a, K.CC.B.4.b, K.CC.B.4.b, K.CC.B.4.c, K.CC.C.5, K.CC.C.6, K.CC.C.7	
Numbers and Operation in Base 10	November-December	K.NBT.A.1	
Operations and Algebraic Thinking: Addition Up to 10	January-February	K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.4, K.OA.A.5	
Operations and Algebraic Thinking: Subtraction Within 10	March-April	K.OA.A.1, K.OA.A.2, K.OA.A.3K.OA.A.5	
Measurement and Data	Мау	K.MD.A.1, K.MD.A.2, K.MD.B.3	
Geomtery	June	K.G.A.1, K.G.A.2, K.G.A.3, K.G.B.4, K.G.B.5, K.G.B.6	

Grade 1

Curriculum Overview

The grade one instructional time and curriculum focuses on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes. Reference: New Jerseu Department of Education. New Jerseu Student Learning Students. 2016.

Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.			
Unit Title	Timeframe	New Jersey Student Learning Standards	
Addition and Subtraction to 12	September-November	1.0A.A.1, 1.0A.A.2, 1.0A.B.3, 1.0A.B.4, 1.0A.D.7, 1.0A.D.8	
Addition and Subtraction to 20	November- January	1.0A.C.5, 1.0A.C.6, 1.0A.D.7, 1.0A.D.8	
Number and Operations in Base 10	January- April	1.NBT.A.1, 1.NBT.B.2, 1.NBT.B.3, 1.NBT.C.4, 1.NBT.C.5, 1.NBT.C.6	
Time & Measurement & Data	Мау	1.MD.A.1, 1.MD.A.2, 1.MD.B.3, 1.MD.C.4	
Geometry & Fractions	May- June	1.G.A.1, 1.G.A.2, 1.G.A.3	

Avon School Mathematics Curriculum			
	Grade 2		
	Curriculum O	verview	
Math instruction will focus on four critical areas: extending understanding of base-ten notation, building fluency with addition and subtraction, using standard units of measure, and describing and analyzing shapes.			
Reference: New Jersey Department of Education. New Jersey Student Learning Standards, 2016. Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.			
Unit Title	Timeframe	New Jersey Student Learning Standards	
Operations & Algebraic Thinking	September-October	2.0A.A.1, 2.0A.A.2, 2.0A.A.3, 2.0A.B.2, 2.0A.C.3, 2.0A.C.4	
Number & Operations in Base Ten	November-March	2.NBT.A.1, 2.NBT.A.2, 2.NBT.A.3, 2.NBT.A.4, 2.NBT.B.5, 2.NBT.B.6, 2.NBT.B.7	
Measurement & Data	April-May	2.MD.A.1, 2.MD.A.2, 2.MD.A.3, 2.MD.A.4, 2.MD.B.5, 2.MD.B.6, 2.MD.C.7, 2.MD.C.8, 2.MD.D.9, 2.MD.D.10 ,	
Geometry	June	2.G.A.1, 2.G.A.2, 2.G.A.3	

Avon School Mathematics Curriculum				
	Grade 3			
	Curriculum O	verview		
In Grade 3, the curriculum and instructional time focuses or especially unit fractions (fractions w	a four critical areas: (1) developing understanding of multiplicat ith numerator 1); (3) developing understanding of the structure <u>The topics within this map are color coded to dis</u> Operations and Alge Number and Operati Numbers and Operati Mensurement	ion and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes. play the domains in which they correlate: braic Thinking ons in Base Ten ions- Fractions upd Data		
	Geometr	y		
	Reference: New Jersey Department of Education. No Reference: New Jersey Department of Education Division of	zw Jersey Student Learning Standards, 2016. Teaching and Learning. Curricular Framework, 2016.		
Topic Title	Timeframe	New Jersey Student Learning Standards		
Understand Multiplication and Division of Whole Numbers	September - 10 days	3.0A.A.1, 3.0A.A.2, 3.0A.A.3, 3.0A.B.5		
Multiplication Facts: Use Patterns	September / October- 9 days	3.OA.A.1, 3.OA.A.3, 3.OA.B.5, 3.OA.D.9		
Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8	October / November - 11 days	3.0A.A.3, 3.0A.B.5, 3.0A.D.9		
Use Multiplication to Divide: Division Fact	November - 12 days	3.0A.A.3, 3.0A.A.4, 3.0A.B.5, 3.0A.A.6, 3.0A.D.8, 3.0A.D.9		
Fluently Multiply and Divide Within 100	December - 11 days	3.0A.A.3, 3.0A.C.7, 3.0A.D.9		
Connect Area to Multiplication and Addition	January - 10 days	3.MD.C.5, 3.MD.C.6, 3.MD.C.7		
Solve Perimeter Problems	January - 7 days	3.MD.D.8, 3.MD.C.7		
Represent and Interpret Data				
Use Strategies and Properties to Add and Subtract	February - 12 days	3.NBT.A.1, 3.NBT.A.2, 3.OA.D.9		
Fluently Add and Subtract Within 1,000	March - 11 days	3.NBT.A.2		
Multiply by Multiples of 10	March - 7 days	3.NBT.A.3		
Use Operations with Whole Numbers to Solve Problems	March - 7 days	3.OA.D.8		
Understand Fractions as Numbers	April - 11 days	3.NF.A.1, 3.NF.A.2, 3.NF.A.3, 3.MD.B.4, 3.G.A.2		
Fraction Equivalence and Comparison				
Solve Time, Capacity, and Mass Problems				
Attributes of Thus Dimensional Change	May - 12 days	3.GA.1		

Grade 4

Curriculum Overview

The Grade 4 Mathematics Curriculum will focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fration equivalence, addition and subtraction of frations with like denominators, and multiplication of fractions by whole numbers; (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

Operations and Algebraic Thinking Number and Operations in Base Ten Number and Operations-Fractions Measurement and Data Geometry

Reference: New Jersey Department of Education. New Jersey Student Learning Standards, 2016. Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.			
Topic Title	Timeframe	New Jersey Student Learning Standards	
1. Generalize Place Value Understanding	September-15 days	4.NBT.A.2,4.NBT.A.1,4.NBT.A.3	
2. Fluently Add and Subtract Multi-Digit Whole Numbers	September-October10Days	4.NBT.B.4,4.OA.A.3,	
3. Use Strategies and Properties to Multiply by 1-Digit Numbers	October-15 Days	4.NBT.B.5,4.OA.A.3	
4. Use Strategies and Properties to Multiply by 2-Digit Numbers	October-November15 Days	4.NBT.B.5,4.OA.A.3	
5. Use Strategies and Properties to Divide by 1-Digit Numbers	November-December 12 Days	4.NBT.B.6,4.OA.A.3	
6. Use Operations with Whole Numbers to Solve Problems	December-7 Days	4.OA.A.1,4.OA.A.2,4.NBT.B.5,4.NBT.B.6,4.OA.A.3	
7. Factors and Multiples	January- 15 Days	4.OA.B.4,4.NBT.B.5,	
8. Extend Understanding of Fraction Equivalence and Ordering	February- 10 Days	4.NF.A.1,4.NF.A.2	
9. Understand Addition and Subtraction of Fractions	Februry- 13 Days	4.NF.B.3a,4.NF.B.3b,4.NF.B.3d,4.NF.B.3c,	
10. Extend Multiplication Concepts to Fractions	March-8 Days	4.NF.B.4a,4.NF.B.4b,4.NF.B.4c,4.MD.A.2,	
11. Represent and Interpret Data on Line Plots	February-6 Days	4.MD.B.4,4.NF.A.1,4.NF.B.3d	
12. Understand and Compare Decimals	March-8 Days	4.NF.C.6,4.NF.C.7,4.MD.A.2,4.NF.C.5,	
13. Measurement: Find Equivalence in Units of Measure	February-March9 Days	4.MD.A.1,4.MD.A.2,4.NF.B.3d,4.NF.B.4c,4.MD.A.3,4.NBT.B.5,4.NBT.B.4	
14. Algebra: Generate and Analyze Patterns	March-7 Days	4.OA.C.5	
15. Geometric Measurement: Understand Concepts of Angles and Angle Measurement		4.MD.C.5,4.G.A.1,4.MD.C.5a,4.MD.C.5b,4.MD.C.6,4.MD.C.7,	
16. Lines, Anales, and Shapes	April-May10 Days	464146424643	

Grade Level 5

Curriculum Overview

The Grade 5 Mathematics Curriculum focuses on three critical areas. The first is developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and division of fractions in limited cases (unit fractions divided by whole numbers divided by unit fractions). The second is extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and develoing fluency with whole number and decimal operations. The last area is developing understanding of volume.

The topics within this map are color coded to display the domains in which they correlate: Operations and Algebraic Thinking

Operations and Algebraic Thinking Number and Operations in Base Ten Numbers and Operations- Fractions Measurement and Data Geometry

Geometry

Reference: New Jersey Department of Education. New Jersey Student Learning Standards, 2016. Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.

Topic Titles	Timeframe	New Jersey Student Learning Standards
Topic 1: Understand Place Value	10 days (September)	5.NBT.A.1, 5.NBT.A.2, 5.NBT.A.3, 5.NBT.A.4
Topic 2: Add and Subtract Decimals to Hundredths	10 days (September)	5.NBT.B.7
Topic 3: Fluently Multiply Multi-Digit Whole Numbers	10 days (October)	5.NBT.A.2, 5.NBT.B.5
Topic 4: Use Models and Strategies to Multiply Decimals	12 days (October-November)	5.NBT.A.2, 5.NBT.B.7
Topic 5: Use Models and Strategies to Divide Whole Numbers	10 days (November-December)	5.NBT.B.6
Topic 6: Use Models ans Strategies to Divide Decimals	12 days (December-January)	5.NBT.A.2, 5.NBT.B.7
Topic 7: Use Equivalent Fractions to Add and Subtract Fractions	14 days (January)	5.NF.A.1, 5.NF.A.2
Topic 8: Apply Understanding of Multiplication	12 days (February)	5.NF.B.4, 5.NF.B.5, 5.NF.B.6
Topic 9: Apply Understanding of Division to Divide Fractions	12 days (February)	5.NF.B.3, 5.NF.B.7
Topic 10: Understand Volume Concepts	9 days (March)	5.MD.C.3, 5.MD.C.4, 5.MD.C.5
Topic 11: Convert Measurements	10 days (April)	5.MD.A.1, 5.NBT.A.2, 5.NBT.B.5
Topic 12: Represent and Interpret	7 days (April)	5.MD.B.2, 5.NF.A.2, 5.NF.B.6
Topic 13: Algebra: Write and Interpret Numerical Expressions	7 days (May)	5.0A.A.1 5.0A.A.2
Topic 14: Graph Points on the Coordinate Plane	7 days (May)	5.G.A.1, 5.G.A.2
Topic 15: Algebra: Analyze Patterns and Relationships	7 days (June)	5.O.A.B.3
Topic 16: Geometric Measurement: Classify Two- Dimensional Figures	7 days (June)	5.G.B.3 5.G.B.4

Grade 6

Curriculum Overview

In grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

The topics within this map are color coded to display the domains in which they correlate: Ratios and Proportional Relationships The Number System Expressions and Equations Geometry (imbedded in topics 1, 2, and 4) Statistics and Probability

Reference: New Jersey Department of Education. New Jersey Student Learning Standards, 2016. Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.			
Topic Title	Timeframe	New Jersey Student Learning Standards	
Fluently Add, Subtract, Multiply, and Divide Decimals	September	6.NS.B2, 6.NS.B3	
Common Factors and Multiples	September	6.NS.B4	
Algebra: Understand Numerical and Algebraic Expressions (include topics 13 & 14)	October	6.EE.A1, 6.EE.A2, 6.EE.A3, 6.EE.A4, 6.EE.B6, 6.G.A2	
Algebra: Solve Equations and Inequalities (include topics 13 & 14)	November	6.EE.B5, 6.EE.B7, 6.EE.B8, 6.G.A1, 6.EE.B6	
Rational Numbers	December	6.NS.C5, 6.NS.C6, 6.NS.C7	
Algebra: Coordinate Geometry (include topics 13 & 14)	December	6.G.A1, 6.G.A2, 6.G.A3, 6.G.A4, 6.NS.C6, 6.NS.C7, 6.NS.C8	
Algebra: Patterns and Equations	January	6.EE.C9	
Ratio Concepts and Reasoning	January - February	6.RP.A1, 6.RP.A2, 6.RP.A3a, 6.RP.A3b, 6.RP.A3d	
Ratio Concepts: Rates	February - March	6.RP.A2, 6.RP.A3b, 6.RP.A3d, 6.RP.A3a	
Ratio Concepts: Percent	March	6.RP.A3c	
Divide Fractions by Fractions (review fluently dividing whole numbers	April	6.NS.A1, 6.NS.B2, 6.EE.A2c, 6.EE.B7	
Measures of Center and Variability	April - May	6.SP.A, 6.SP.B.5c	
Topic 16: Display and Summarize Data	May - June	6.SP.A.2, 6.SP.B4, 6.SP.B.5b, 6.SP.B.5c, 6.SP.B.5d	

Avon School Mathematics Curriculum				
	Grade 7			
	Curriculum Overview			
In grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving probles involving scale drawings and informal geometric constructions, and working with two- and three - dimensional shapes to solve problems involving area, surface area, and volume; (4) drawing inferences about populations based on samples.				
Ratios and Proportional Relationships The Number System Expressions and Equations Geometry Statistics and Probability				
Reference: Reference: New Jer	vew Jersey Department of Education. New Jersey Student Learning Sta sey Department of Education Division of Teaching and Learning. Curric	naaras, 2016. ular Framework, 2016.		
Topic Title	Timeframe	New Jersey Student Learning Standards		
Operations w/ Rational Numbers	September	7.NS.A1, 7.NS.A2, 7.NS.A3		
Decimals & Percents	September	7. NS.A2d, 7.NS.A3, 7.EE.A2		
Rational & Irrational Numbers September - October 7.EE.A1				
Ratios & Rates				
Proportional Relationships				
Percents	November	7.RP.A.2b, 7.RP.A.2c, 7.RP.A3, 7.NS.A3		
Equivalent Expressions	December	7.EE.B3		
Equations & Linear Equations	December-January	7.EE.B3, 7.EE.B4, 7.EE.B4a		
Inequalities	January	7.EE.B4b		
Proportional Relationships, Lines, and Linear Equations	February	7.RP.A2b, 7.RP.A2d, 7.RP.A2a		
Sampling & Comparing Two Populations	February - March	7.SP.A, 7.SP.B		
Probability Concepts	March - April	7.SP.C.5, 7.SP.C.6, 7.SP.C.7, 7.SP.C.8, 7.EE.B.3		
Compound Events	April	7.SP.C.6, 7.SP.C.8, 7.EE.B.3		
Circles	Мау	7.EE.B.3, 7.EE.B.4, 7.EE.B.4a, 7.G.A.2, 7.G.B.4		
Angles	Мау	7.G.A.2, 7.G.B.5, 7.EE.B.4, 7.EE.B.4a		
2- and 3- Dimensional Shapes	June	7.G.B6, 7.G.A2		

Surface Area and Volume	June	7.G.A3, 7.G.A2

Avon School Mathematics Curriculum				
	Grade 8			
	Curriculum Overview			
In grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem. The topics within this map are color coded to display the domains in which they correlate: The Number System Expressions and Equations Functions Geometry Statistics and Probability				
Reference: Reference: New Jer	New Jersey Department of Education. New Jersey Student Learning Sta sey Department of Education Division of Teaching and Learning. Curric	ndards, 2016. ular Framework, 2016.		
Topic Title	Timeframe	New Jersey Student Learning Standards		
Rational & Irrational Numbers				
Integer Exponents (Include topic 13)	September	8.EE.A1, 8.EE.A2, 8.G.C9		
Scientific Notation	September - October	8.EE.A3, 8.EE.A4		
Linear Equations in One Variable	October	8.EE.C7a, 8.EE.C7b		
Proportional Relationships, Lines, and Linear Equations	November	8.EE.B5, 8.EE.B6		
Systems of Two Linear Equations	November - December	8.EE.C8a, A.EE.C8b, 8.EE.C8c		
Defining and Comparing Functions	December - January	8.F.A1, 8.F.A3, 8.F.B5		
Linear Functions	January	8.F.A.1, 8.F.A2, 8.F.A3, 8.F.B4, 8.F.B5		
Congruence	January - February	8.G.A1, 8.G.A2, 8.G.A3		
Similarity	February	8.G.A1, 8.G.A3, 8.G.A4, 8.EE. B6		
Reasoning in Geometry	March	8.G.A3, 8.G.A4, 8.G.A5		
Using the Pythagorean Theorem	April	8.EE.A2, 8.G.B6, 8.G.B7, 8.G.B8, 8.G.C9		
Surface Area & Volume	Surface Area & Volume April - May 8.G.B.7, 8.G.C.9, 8.EE.A.2			
Scatter Plots	Мау	8.SP.A1, 8.SP.A2, 8.SP.A3, 8.F.B4, 8.F.B5		
Analyzing Categorical Data	June	8.SP.A4		

Anon School				
Mathematics Curriculum				
	Algebra I			
	Curriculum Overview			
In Algebra 1, instructional time should focus on three critic applications; (2) connecting the relationship between func relates to applications, don	al areas: (1) solving and using equations and inequalitie tions and models to relate tables, graphs, equations, ine- nain and range, and identifying of different functions ba	es to convey two expressions, rearrange formulas, and apply real-world qualities, and systems; (3) understanding the concept of a function as it sed on situations and function builiding.		
The topics within this hap are color coded to display the donalits in which they converte. The Real Number System (imbedded within all chapters) Arithmetic with Polynomials and Radical Functions Reasoning with Equations and Inequalities Data Analysis Linear, Quadratic, and Exponential Models				
Reference: New Jersey Department of Education. New Jersey Student Learning Standards, 2016. Reference: New Jersey Department of Education Division of Teaching and Learning. Curricular Framework, 2016.				
Chapter Title	Timeframe	New Jersey Student Learning Standards		
Solving Equations	September	A-SSE.A1, A-CED.A1, A-CED.A2, A-CED.A3, A-CED.A4, A-REI. A1, A-REI.B3		
Solving Inequalities	September - October	A-CED.A3, A-REI.D12		
An Introduction to Functions	October - November	A-CED.A1, A-REI.D10, A-REI.D11, F-IF.A, F-IF.B, F-BF.B3		
Linear Functions	November - December	A-REI.D10, A-REI.D11, F-IF.B, F-IF.C7a, F-BF.A1, F-BF.B3, F- LE.A, F-LE.B		
Systems of Equations and Inequalities	December - January	A-CED.A3, A-REI.C5, A-REI.C6, A-REI.C7, A-REI.D11, A-REI. D12		
Exponents and Exponential Functions	January - February	N-RN.A1, N-RNB3, A-SSE.B3c, A-CED.A1, A-REI.D11, F-IF.B, F- IF.C7e, F-IF.C8b, F-BF.A1, F-BF.B3, F-LE.A, F-LE.B		
Polynomials and Factoring	February - March	A-SSE.A2, A-SSE.B3a, A-SSE.B3b, A-APR.A1, A-APRB3, F-IF. C7c, F-IF.8a		
Quadratic Functions and Equations	March - April	A-APRB3, A-CED.A1, A-REI.B4a, A-REI.B4b, A-REI.D11, F-IF.B, F-IF.C7a, F-IF.C7c, F-IF.C8a, F-IF.C9, F-BF.A1, F-BF.B3, F-LE. A3		
Radical Expressions and Equations	April - May	N-RN.A2, A-REI.A3		
Data Analysis and Probability	May - June	S-ID.A1, S-ID.A2, S-ID.A3, S-ID.B		
Rational Expressions & Functions	(Time Permitted)	A-APR.D6, A-APR.D7, A-CED.A1, A-CED.A2, A-REI.A2, F-IF. A2, F-IF.B4, F-IF.B5		

Avon School				
	Mathematics Curriculum			
	Geometry			
	Curriculum Overview			
In Geometry, instructional time should focus on three critical components: (1) understanding the attributes and relationships of geometric objects that can be applied in diverse contexts; (2) applying concepts of congruence, similarity, and symmetry from a geometric transformation perspective; (3) demonstrating knowledge of proofs to investigate geometric phenomena using experimental and modeling tools.				
The topics	within this map are color coded to display the domains in which t	they correlate:		
	Congruence			
	Similarity, Right Triangles, and Trigonometry Circles			
	Transformations & Rigid Motions			
	Proofs			
	Modeling with Geometry Probability			
Reference:	New Jersen Department of Education, New Jersen Student Learning Sta	undards, 2016.		
Reference: New Jer	sey Department of Education Division of Teaching and Learning. Curric	vular Framework, 2016.		
Topic Title	Timeframe	New Jersey Student Learning Standards		
Intro to Geometry	September	G-CO.A1, G-CO.D12		
Isometry and Transformations	September - October	G-CO.A2, G-CO.A3, G-CO.A4, G-CO.A5, G-CO.B6, G-CO.D12		
Intro to Proofs	October - November	G-CO.C9, G-CO.D12		
Triangles and Triangle Congruence				
Quadrilaterals and Coordinate Proofs	January	G-GPE.B, G-CO.C11, G-CO.D12		
Similarity	February	G-SRT.B, G-SRT.A, G-CO.D12		
Right Triangles and Trigonometry	March	G-SRT.C, G-CO.D12		
Circles	April	G-GMD.A1, G-C.A, G-C.B, G-GPE.A, G-CO.D13, G-CO.D12		
Modeling in 3-Dimensions	May - June	G-GMD.A1, G-GMD.A3, G-GMD.B, G-MG.A, G-CO.D12		