

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:

Ratios and Proportional Relationships (embedded in units 3, 4, and 5)

The Number System

Expressions and Equations

Geometry

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
Week 0 - Ready Math	First Week	6.NS.C.8, 6.G.A.3, 7.G.A.2
<i>Rigid Transformations and Congruence</i>	<i>September - October</i>	<i>8.G.A.1, 8.G.A.1a, 8.G.A.1b, 8.G.A.1c, 8.G.A.3, 8.G.A.2</i>
<i>Transformations, Similarity, and Angle Relationships</i>	<i>November</i>	<i>8.G.A.3, 8.G.A.4, 8.G.A.5</i>
<i>Slope, Linear Equations, and Systems</i>	<i>December - January</i>	<i>8.EE.B.5, 8.EE.B.6, 8.EE.C.7, 8.EE.C.7a, 8.EE.C.7b, 8.EE.C.8, 8.EE.C.8a, 8.EE.C.8b, 8.EE.C.8c</i>
<i>Linear and Nonlinear Relationships</i>	<i>February - March</i>	<i>8.F.A.1, 8.F.A.2, 8.F.A.3, 8.F.B.4, 8.F.B.5, 8.EE.B.5</i>
<i>Properties and Scientific Notation</i>	<i>March - April</i>	<i>8.EE.A.1, 8.EE.A.3, 8.EE.A.4</i>
<i>Rational Numbers, Irrational Numbers, and the Pythagorean Theorem</i>	<i>April - May</i>	<i>8.EE.A.2, 8.G.B.6, 8.G.B.7, 8.G.B.8, 8.G.C.9, 8.NS.A.1, 8.NS.A.2</i>
<i>Two-Variable Data and Fitting a Linear Model</i>	<i>June</i>	<i>8.SP.A.1, 8.SP.A.2, 8.SP.A.3, 8.SP.A.4</i>