



OSSD Scope & Sequence: Math Grade 9, AGS 1

Scope & Sequence (S&S) is an overview of the skills and content covered in your curriculum at each class/instructional level. It provides an overview of the length of time (scope) and the order (sequence) in which key content will be taught. **Fully developed [curriculum and unit plans](#) will require more detail than the S&S provides.**

Grade Level(s): 9

Content Area and/or Course Title: Algebra, Geometry, Statistics - 1 (AGS1)

Unit Title	Time/Term	Focus Standards and Unit Outcomes
		<i>Standards from the Vermont Content Areas: Mathematics as delivered by Carnegie Learning, 4E.</i>
	<i>Each Session is approximately 55 minutes.</i>	
Module 1, Searching for Patterns TOPIC 2 Sequences TOPIC 3 Linear Regressions	38 sessions	Students recognize and identify the key characteristics of different function families. They write recursive and explicit formulas for arithmetic and geometric sequences. Students analyze patterns of data, formalize their understanding of lines of best fit, and consider whether a model is a good fit. N.Q.3, 6.EE.9, 8.EE.6, 8.EE.7, A.REI.3, F.IF.3, F.IF.5, 8.F.1, F.IF.4, F.BF.1a, F.BF.2, F.BF.1, F.BF.1, S.ID.6, S.ID.6a, S.ID.6b, S.ID.6c, S.ID.7, S.ID.8, S.ID.9, 8.SP
MODULE 2 Exploring Constant Change TOPIC 1 Linear Functions TOPIC 2 Solving Linear Equations and Inequalities	46 Sessions	Students explore the specificity of the equation representation of a linear function, considering how to solve equations and inequalities. They consider a second linear function and solve systems. Finally, students use linear functions to determine the perimeter and area of polygons on a coordinate plane. N.Q.1, A.SSE/1a, N.Q.1, N.Q.3, A.CED.1, A.CED.1, A.CED.3, A.CED.4, 8.F.4, A.CED.2, A.REI.10, 8.EE.7, A.REI.3, A.REI.1, A.REI.3, 7.RP.2, F.IF.1, F.IF.2, F.IF.3, F.IF.4, F.IF.6, F.IF.7a, F.IF.9, F.BF.3, F.LE.1a, F.LE.1b, F.LE.2, G.GPE.5, 8.SP.1, S.ID.6, S.ID.9,

		8.F.1, F.IF.2, F.BF.1
MODULE 3 Investigating Growth and Decay TOPIC 1 Introduction to Exponential Functions	18 Sessions	Students write exponential functions from geometric sequences. They transform exponential functions. Students use the structure of exponential functions to solve for unknown values. N.RN.3, N.RN.2, A.SSE.1a, A.CED.1, A.CED.2, A.CED.4, A.REI.10, 8.EE.8, A.REI.6, A.SSE.2, A.CED.2, A.CED.3, A.REI.5, A.REI.6, A.REI.10, A.REI.11, A.REI.12, 8.EE.7, A.REI.3, F.IF.4, F.IF.7e, F.IF.9, F.IF.6, F.BF.1a, F.BF.3, F.LE.1a, F.LE.2, F.LE.5, G.GPE.7, F.IF.6, F.IF.7a, F.IF.7b, F.BF.1b, F.BF.3, F.LE.1c, F.LE.3, F.LE.5, S.ID.6a,
MODULE 4 Describing Distributions TOPIC 1 One-Variable Statistics TOPIC 2 Two-Variable Categorical Data	36 Sessions	Students describe numeric data with a single value. They analyze data distributions and calculate standard deviation. Students use the statistical process to summarize, represent, and interpret data in two categories. N.RN.2, A.REI.3, A.REI.6, A.CED.4, F.IF.4, F.BF.3, F.LE.2, S.ID.1, S.ID.2, S.ID.3, 6.SP.5c, TOPIC 2, F.BF.2, S.ID.5, S.ID.9
MODULE 5 Analyzing Geometric Functions TOPIC 1 Constructions	16 Sessions	F.BF.3, G.CO.1, G.CO.12, G.CO.13, G.GPE.5, G.GPE.7, S.ID.2, S.ID.