

Alignment Document

State of Maryland And Aventa Learning Integrated Math

Integrated Math 2005-2007 Benchmark Blueprint

State Standard Number	State Standard Area / Description	Unit Name	Course Topic Description
1	The student will demonstrate the ability to investigate, interpret, and communicate solutions to mathematical and real-world problems using patterns, functions, and algebra.	Algebraic Sense	Number Patterns
1.1	The student will analyze a wide variety of patterns and functional relationships using the language of mathematics and appropriate technology.	Algebraic Sense	Systems of two linear equations with two variables
1.1.3	The student will apply addition, subtraction, multiplication, and/or division of algebraic expressions to mathematical and real-world problems.	Algebraic Sense	Intro to Algebraic Expressions
1.2	The student will model and interpret real-world situations using the language of mathematics and appropriate technology.	Algebraic Sense	Graphing Equations
		Algebraic Sense	Inequalities
1.2.1	The student will determine the equation for a line, solve linear equations, and/or describe the solutions using numbers, symbols, and/or graphs.	Algebraic Sense	Solving Two-Step Equations
1.2.2	The student will solve linear inequalities and describe the solutions using numbers, symbols, and/or graphs.	Algebraic Sense	Inequalities
		Algebraic Sense	Graphing Equations & Inequalities
1.2.3	The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.	Algebraic Sense	Graphing Equations & Inequalities

2	The student will demonstrate the ability to solve mathematical and real-world problems using measurement and geometric models and will justify solutions and explain processes used.	Measurement	Area
2.1	The student will represent and analyze two- and three-dimensional figures using tools and technology when appropriate.	Measurement	Volume
2.1.1	The student will analyze the properties of geometric figures.	Geometric Figures	Polygons
		Geometric Figures	Prisms, Cones & Pyramids
		Geometric Figures	Points, Lines, & the Plane
		Geometric Figures	Perpendicular and Parallel Lines
		Geometric Movement	Overview
2.1.3	The student will use transformations to move figures, create designs, and/or demonstrate geometric properties.	Geometric Movement	Overview
		Geometric Movement	Transformations
2.1.4	The student will construct and/or draw and/or validate properties of geometric figures using appropriate tools and technology.	Geometric Figures	Overview
		Geometric Figures	Angles
		Geometric Figures	Points, Lines, & the Plane
		Geometric Figures	Perpendicular and Parallel Lines
2.2	The student will apply geometric properties and relationships to solve problems using tools and technology when appropriate.	Geometric Movement	Geometric Problem Solving
2.2.2	The student will solve problems using two-dimensional figures and/or right-triangle trigonometry.	Geometric Figures	Points, Lines, & the Plane
2.3	The student will apply concepts of measurement using tools and technology when appropriate.	Measurement	Customary Measurement

2.3.2	The student will use techniques of measurement and will estimate, calculate, and/or compare perimeter, circumference, area, volume, and/or surface area of two- and three-dimensional figures and their parts.	Measurement	Overview
		Measurement	Area
		Measurement	Volume
		Operations	Estimation
3	The student will demonstrate the ability to apply probability and statistical methods for representing and interpreting data and communicating results, using technology when needed.	Introduction to Probability	Mean, Median, and Mode
3.1	The student will collect, organize, analyze, and present data.	Introduction to Probability	Experimental Probability
3.1.2	The student will use the measures of central tendency and/or variability to make informed conclusions.	Introduction to Probability	Mean, Median, and Mode
3.1.3	The student will calculate theoretical probability or use simulations or statistical inferences from data to estimate the probability of an event.	Introduction to Probability	Overview
		Introduction to Probability	Theoretical Probability
3.2	The student will apply the basic concepts of statistics and probability to predict possible outcomes of real-world situations.	Introduction to Probability	Theoretical Probability