AVENTA LEARNING

Alignment Document

State of Louisiana
And
Aventa Learning Consumer Math

Consumer Math
2005-2007 Benchmark Blueprint

State Standard Number	State Standard Area / Description	Unit Name	Course Topic Description
0	Number and Number Relations		
1	Identify and describe differences among natural numbers, whole numbers, integers, rational numbers, and irrational numbers		
2	Evaluate and write numerical expressions involving integer exponents		
3	Apply scientific notation to perform computations, solve problems, and write representations of numbers		
4	Distinguish between an exact and an approximate answer, and recognize errors introduced by the use of approximate numbers with technology		
5	Demonstrate computational fluency with all rational numbers (e.g., estimation, mental math, technology, paper/pencil)		
6	Simplify and perform basic operations on numerical expressions involving radicals (e.g., 2 x the square root of 3 + 5 x the square root of 3 = 7 x the square root of 3)		
7	Use proportional reasoning to model and solve real-life problems involving direct and inverse variation	Housing	Scale Drawings
0	Algebra		
8	Use order of operations to simplify or rewrite variable expressions	All about jobs	Review of Order of Operations
		Wages	Evaluating Expressions and Formulas

9	Model real-life situations using linear expressions, equations, and inequalities	Wages	Review of Equations
		Wages	Evaluating Expressions and Formulas
		Personal Finances	Writing Linear Equations
		Personal Finances	Graphing an Equation Using Points
10	Identify independent and dependent variables in real-life relationships		
11	Use equivalent forms of equations and inequalities to solve real-life problems	Wages	Solving Equations: Addition and Subtraction
		Wages	Commission
		Wages	Solving Equations: Multiplication and Division
		Wages	Solving Two-Step Equations
		Wages	Review of Equations
		Wages	Salary and Commission
		Personal Finances	The Costs of Raising a Family
		Checking and Savings Accounts	Exponential Equations
12	Evaluate polynomial expressions for given values of the variable		
13	Translate between the characteristics defining a line (i.e., slope, intercepts, points) and both its equation and graph	Personal Finances	Graphing Using Slope and Y-Intercept
		Personal Finances	Graphs of Equations
		Personal Finances	Graphing an Equation Using Points
		Checking and Savings Accounts	Plotting a Decay Curve
		Checking and Savings Accounts	Exponential Equations
		Checking and Savings Accounts	Graphing Exponential Equations
14	Graph and interpret linear inequalities in one or two variables and systems of linear inequalities		
15	Translate among tabular, graphical, and algebraic representations of functions and real life situations	Personal Finances	Unit Open Response-Comparing Consumer Costs
		Checking and Savings Accounts	Written Assignment 3-Growth of Ticket Prices

16	Interpret and solve systems of linear equations using graphing, substitution, elimination, with and without technology, and matrices using technology		
0	Measurement		
17	Distinguish between precision and accuracy		
18	Demonstrate and explain how the scale of a measuring instrument determines the precision of that instrument		
19	Use significant digits in computational problems		
20	Demonstrate and explain how relative measurement error is compounded when determining absolute error		
21	Determine appropriate units and scales to use when solving measurement problems		
22	Solve problems using indirect measurement	Housing	Scale Drawing
0	Geometry		
23	Use coordinate methods to solve and interpret problems (e.g., slope as rate of change, intercept as initial value, intersection as common solution, midpoint as equidistant)	Personal Finances	Writing Linear Equations
		Personal Finances	Writing Linear Equations
		Personal Finances	Open Response-Comparing Consumer Prices
		Checking and Savings Accounts	Growth and Decay
		Checking and Savings Accounts	Open Response-Growth of Ticket Prices
24	Graph a line when the slope and a point or when two points are known	Personal Finances	Graphing with Points
		Personal Finances	Graphing with Slope and Intercept
25	Explain slope as a representation of "rate of change"	Personal Finances	Writing Linear Equations
26	Perform translations and line reflections on the coordinate plane		
0	Data Analysis, Probability, and Discrete Math		
27	Determine the most appropriate measure of central tendency for a set of data based on its distribution		

28	Identify trends in data and support conclusions by using distribution characteristics such as patterns, clusters, and outliers		
29	Create a scatter plot from a set of data and determine if the relationship is linear or nonlinear		
30	Use simulations to estimate probabilities		
31	Define probability in terms of sample spaces, outcomes, and events		
32	Compute probabilities using geometric models and basic counting techniques such as combinations and permutations		
33	Explain the relationship between the probability of an event occurring, and the odds of an event occurring and compute one given the other		
34	Follow and interpret processes expressed in flow charts		
0	Patterns, Relations, and Functions		
35	Determine if a relation is a function and use appropriate function notation		
36	Identify the domain and range of functions		
37	Analyze real-life relationships that can be modeled by linear functions	Checking and Savings Accounts	Comparing Savings Accounts
		Automobile Expenses	Used Cars
37	Analyze real-life relationships that can be modeled by linear functions	Personal Finances	Writing Linear Equations
		Personal Finances	Graphing with Tables
		Personal Finances	Graphing with Slope and Intercept
		Personal Finances	Comparing Consumer Prices
		Personal Finances	Net Worth and Purchasing Power
38	Identify and describe the characteristics of families of linear functions, with and without technology		
39	Compare and contrast linear functions algebraically in terms of their rates of change and intercepts	Personal Finances	Writing Linear Equations
40	Explain how the graph of a linear function changes as the coefficients or constants are changed in the function's symbolic representation		