Vermont Grade Level Expectations & Essential Skills Math Software

This document outlines the correlations between the Grade 2 Vermont Grade Level Expectations and the Essential Skills math programs. The specific curriculum outcomes are noted on the left and are matched with the relevant Essential Skills program on the right. Where correlations are not exact, the difference is noted in brackets. **Essential Skills programs correlate with 96% of the Grade 2 Vermont Grade Level Expectations.**

<table>
<tr><th>Vermont Grade Level Expectations</th><th>Essential Skills Software
CORRELATING PROGRAMS</th></tr>
<tr><td colspan="2">Standard 7.6: Arithmetic, Number, and Operation Concepts</td></tr>
<tr><td>M2: 1 - Demonstrates conceptual understanding of rational numbers with respect to: whole numbers from 0 to 199 using place value, by applying the concepts of equivalency in composing or decomposing numbers (e.g., 34 = 17 + 17; 34 = 29 + 5); and in expanded notation (e.g., 141 = 1 hundred + 4 tens + 1 one or 141 = 100 + 40 + 1) using models, explanations, or other representations; and positive fractional numbers (benchmark fractions: a/2, a/3, or a/4, where a is a whole number greater than 0 and less than or equal to the denominator) as a part to whole relationship in area and set models where the denominator is equal to the number of parts in the whole using models, explanations, or other representations.</td><td rowspan="2">Mastering Numeration 1
(to 100)

Mastering Numeration 2
(to 1000, fractions)</td></tr>
<tr><td>M2: 2 - Demonstrates understanding of the relative magnitude of numbers from 0 to 199 by ordering whole numbers; by comparing whole numbers to each other or to benchmark whole numbers (10, 25, 50, 75, 100, 125, 150, or 175); by demonstrating an understanding of the relation of inequality when comparing whole numbers by using “1 more,” “1 less,” “10 more,” “10 less,” “100 more,” or “100 less”; or by connecting number words and numerals to the quantities they represent using models, number lines, or explanations.</td></tr>
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Vermont Grade Level Expectations	Essential Skills Software CORRELATING PROGRAMS
M2: 3 - Demonstrates conceptual understanding of mathematical operations involving addition and subtraction of whole numbers by solving problems involving joining actions, separating actions, part-part-whole relationships, and comparison situations; and addition of multiple one-digit whole numbers.	**Mastering Numeration 2** **Problem Solving 2-3**
M2: 5 - Demonstrates understanding of monetary value by adding coins together to a value no greater than $1.99 and representing the result in dollar notation; making change from $1.00 or less, or recognizing equivalent coin representations of the same value (values up to $1.99).	**Mastering Numeration 2** (to one dollar) **Measurement 2** (to five dollars)
M2: 6 - Mentally adds and subtracts whole-numbers facts through twenty with accuracy.	**Mastering Numeration 2** **Problem Solving 2-3**
M2: 7 - Estimates and evaluates the reasonableness of solutions appropriate to grade level.	
M2: 8 - Applies properties of numbers (odd, even) and operations (commutative, associative, identity) to solve problems and to simplify computations involving whole numbers.	**Mastering Numeration 1**
Standard 7.7: Geometry and Measurement Concepts	
M2: 9 - Uses properties, attributes, composition, or decomposition to sort or classify polygons or objects by a combination of two or more nonmeasurable or measurable attributes.	**Patterning, Geometry & Data Management 2** **Problem Solving 2-3**
M2: 11 - Identifies three-dimensional shapes (rectangular prisms, triangular prisms, cylinders, or spheres) and their attributes and recognizes them in their environment.	
M2: 14 - Demonstrates conceptual understanding of perimeter and area by using models or manipulatives to surround and cover polygons.	**Measurement 2** **Problem Solving 2-3**
M2: 15 - Measures and uses units of measures appropriately and consistently, and makes conversions within systems when solving problems across the content strands.	

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M2: 16 - Determines elapsed and accrued time as it relates to the patterns of days of the week, months, hours, and tells time to five minutes.	**Measurement 2** (to quarter hour) **Problem Solving 2-3**
M2: 18 - Solves problems using a two-dimensional coordinate system (x and y axes—quadrant I) to locate and describe positions on a map.	**Patterning, Geometry & Data Management 2** **Problem Solving 2-3**
Standard 7.8: Functions and Algebra Concepts	
M2: 19 - Identifies and extends to specific cases a variety of patterns (linear and non-numeric) represented in models, tables, or sequences by extending the pattern to the next element, or finding a missing element (e.g., 2, 4, 6, ___, 10).	**Patterning, Geometry & Data Management 2** **Problem Solving 2-3**
M2: 20 - Demonstrates a conceptual understanding of linear relationships (y = kx) as a constant rate of change qualitatively (growth—student growing taller) and quantitatively (measurable growth—2 inches each year) change.	
M2: 22 Demonstrates conceptual understanding of equality by finding the value that will make an open sentence true (e.g., 2 + € = 7). (limited to one operation and limited to use addition or subtraction).	**Mastering Numeration 3** **Problem Solving 2-3**
Standard 7.9: Data, Statistics, and Probability Concepts	
M2: 23 - Interprets a given representation (pictographs with one-to-one correspondence, line plots, tally charts, or tables) to answer questions related to the data, or to analyze the data to formulate conclusions.	**Patterning, Geometry & Data Management 2** **Problem Solving 2-3**
M2: 24 - Analyzes patterns, trends, or distributions in data in a variety of contexts by determining or using “more,” “less,” or “equal.”	
M2: 25 - Organizes and displays data using diagrams, models, tally charts, or tables to answer questions related to the data, to analyze the data to formulate conclusions.	

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M2: 26 - Uses counting techniques to solve problems involving combinations using a variety of strategies (e.g., student diagrams, organized lists, tables, tree diagrams, orsc others); (e.g., "How many ways can you make 50 cents using nickels, dimes, and quarters?")	**Problem Solving 2-3**
M2: 27 - For a probability event in which the sample space may or may not contain equally likely outcomes, uses experimental probability to describe the likelihood or chance of an event using "more likely," "less likely," "equally likely," "certain," or "impossible."	**Patterning, Geometry & Data Management 2** **Problem Solving 2-3**
M2: 28 - In response to a teacher - or student-generated question or hypothesis, collects appropriate data, organizes the data, displays/ represents the data, and makes observations about the data to draw conclusions about the question or hypothesis being tested.	**Patterning, Geometry & Data Management 2**
Standard 2.5: Mathematical Dimensions, Standard 7.10: Mathematical Problem Solving and Reasoning—Applications	
Theoretical Problem Solving and Reasoning techniques are addressed throughout ESS programs.	